USA 1946

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PRODUCTS LABORATORY

ADDRESS REPLY TO
DIRECTOR
AND REFER TO

R - PL
INFORMATION
Inquiries

MADISON 5, WISCONSIN

May 24, 1946

La Fibra Vulcanizzata
Piazzale Cadorna N. 6
Milan, Italy

Gentlemen:

Your letter of April 19 is received.

We are enclosing an article describing the hydrolyzed wood waste plastics as developed by the Forest Products Laboratory. A complete list of the United States Patents on these various processes is as follows:

2,212,866 Plastic chlorinated vegetable fibrous materials. E. C. Sherrard, E. Beglinger, J. P. Hohf and E. Bateman. August 27, 1940.

2,153,316 Methods for the production of plastics. E. C. Sherrard, E. Beglinger, J. P. Hohf and E. Bateman. April 4, 1939.

2,151,412 Processes for the utilization of sawdust for the production of plastics. E. C. Sherrard, E. Beglinger, J. P. Hohf, R. L. Mitchell, and E. Bateman. March 21, 1939.

2,137,119 Plastic compositions. E. C. Sherrard, E. Beglinger, J. P. Hohf, and E. Bateman. November 15, 1938.

2,130,783 Plastic compositions. E. C. Sherrard, E. Beglinger, J. P. Hohf, and E. Bateman. September 20, 1938.

2-La Fibra Vulcanizzata-May 24, 1946

1,932,255 Molding compositions of fibrous vegetable materials and furfural. E. C. Sherrard and E. Beglinger. October 24, 1933.

1,923,756 Molding compositions and a resinous condensation product resulting from its conversion by heat and pressure. E. C. Sherrard and E. Beglinger. August 22, 1933.

The hydrolyzed-wood plastics have properties very similar to the commercial molding compounds and have the advantage of requiring only one-half the amount of phenolic resin that is required with wood flour filler. However, these materials have not been accepted by the industry because they are only producible in black and are somewhat lower in impact resistance than the commercial materials.

A similar material is being produced by an alkaline-hydrolysis process by the Marathon Corporation, Rothschild, Wisconsin. This material, unlike the acid-hydrolyzed material, has very good impact resistance and is being supplied for the production of high-impact molding compounds which are superior to the wood flour filled materials but are not quite comparable to the cord-filled molding compounds.

The acid-hydrolyzed material showed considerable promise as a molding compound for storage battery cases since it has excellent acid resistance and the strength, including impact strength, is superior to the hard rubber commonly used for this purpose.

Very truly yours,

ALFRED J. STAMM, Chief
Division of Derived Products

J. P. Hohf

By: J. P. HOHF, Chemist

Enclosure
1481

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
OFFICE OF THE DIRECTOR

TRIANGLE 5-6920

September 5, 1946

Professor G. Natta
Istituto di Chimica Industriale
Piazza Leonardo DaVinci
Milano, ITALY

My dear Professor Natta:

Many thanks for your kind letter of July 11. I admire your scientific spirit and your great ability to carry on work even in such difficult times as have just passed over Europe.

Under separate cover, I am sending to you a number of reprints of recent papers on high polymers, because I see from your letter that you are now yourself an expert in the field of synthetic rubbers and resins.

I had the pleasure of seeing Dr. Parravano, and shall be pleased to assist him any way I can.

I am very glad to hear that your beautiful house in Champoluc is intact, and hope that in one or two years we may have the chance to visit you and Mrs. Natta in Italy and to spend a few days in the beautiful mountains of your country.

With kindest personal regards,

Sincerely yours,

H. Mark /gw

H. Mark

HM:gw

THE ROYAL INSTITUTION,
21, ALBEMARLE STREET,
LONDON, W.1.

TELEPHONES:
REGENT {0669.
5716.

My dear Professore Natta,
carissimo amico!

Sono molto felice di ricever la Sua lettera quando sono qui in Inghilterra di dare una serie di discorsi. Sarò felice anche di vedere Giuseppe Parravano e di assistarlo in tutte le maniere possibili. La mia famiglia e con me in America; sono tutte

sani. Sono estremamente contento di sapere che tutta la sua famiglia è sana e spero che io avrò l'occasione di vederlo e la sua famiglia nella futura non troppo distante. Sono molto interessato in le sue ricerche scientifiche e Lo prego d'inviarmi notizie dei suoi lavori.

Molti cordialissimi saluti a lei e la sua signora!

Sempre il suo devotissimo

H. Mark

Milano 11 luglio 1946

Prof. A. Mark
The Royal Institution
21, Albemarle Street,
London, W.1

Caro Professore Mark,

Ho ricevuto con grandissimo piacere la Sua lettera da Londra, e sono felice di sentire che Lei e tutta la Sua famiglia stanno bene.

Io avevo incaricato Parravano di consegnarLe alcune copie dei miei lavori, e sarò molto lieto se Lei vorrà inviarmi dall'America copie dei Suoi.

Durante gli ultimi anni qui si é lavorato con grande difficoltà.

Nel campo chimico organico abbiamo studiato una nuova reazione di carattere generale basata sulla produzione di aldeidi per somma di CO e H_2 alle olefine. Essa avviene con rese quasi quantitative e credo possa avere svariate applicazioni pratiche.

Nel campo degli alti polimeri mi sono occupato in particolare di gomma sintetica ed ho adottato un nuovo procedimento speciale di separazione del butilene dal butadiene che ho applicato nella fabbrica di Ferrara. Mi sono occupato inoltre della copolimerizzazione di olefine e diolefine e di resine acriliche.

Nel campo della catalisi ci siamo occupati di idrogenazione selettiva, e della cinetica dell'assorbimento attivato.

Con i raggi di elettroni il lavoro é rimasto sospeso per alcuni anni, ma ora ho intenzione di riprenderlo. Abbiamo ora molte difficoltà perché le Università sono prive di mezzi e gli stipendi degli assistenti non sono sufficienti per vivere, cosicché essi non possono dedicarsi interamente alla ricerca scientifica. Devo perciò permettere una certa attività nel campo industriale per avere i mezzi per lavorare.

La mia famiglia ha avuto molte case distrutte dai bombardamenti, abbiamo però conservata intatta la nostra villa a Champoluc in Val d'Aosta, vicino al Monte Rosa ed al Matterhorn, e se Lei ha desiderio di vedere un po' di alta montagna e di ghiacciai venga a trovarmi lassù. L'alta montagna é l'unica cosa bella che é rimasta intatta in Italia.

Spero di vederla qualche volta.

Molti cordialissimi saluti

(Prof.G.Natta)

USA 1947

August 11, 1947

Mr. Thomas S. Martes
Research Fellow in Chemical Engineering
University of Delaware
Newark, Delaware

Dear Mr. Martes:

I was very glad to receive your letter of July 8th which was forwarded to me from Milan.

I do not have with me the reprints which interest you, but i shall send them to you when I go back to Italy. In the meantime, I would be very glad to meet you in New York, if you are planning a visit to this city in the near future. I will remain in New York from August 18th to August 22nd.

I shall appreciate it if you will notify me of your eventual visit.

My address is:

Banca Commerciale Italiana
14 Wall Street, Room 2505
New York, N. Y.

Very truly yours,

Giulio Natta

UNIVERSITY OF DELAWARE

NEWARK . DELAWARE

Division of Chemical Engineering

U.S.A.

July 8, 1947

Dr. G.Natta
Instituto di Chimica Industriale
Politecnico di Milano
Milan, Italy

Dear Sir:

We have been engaged in the determination of vapor-liquid equilibrium on the systems n-butane, butene-1, and furfural and also on isobutane, butene-1, and furfural. I understand from a mention of your work made in Chemical and Engineering News that you have made determinations of data for several paraffinic hydrocarbons in furfural and are currently engaged in determining heats of solution of hydrocarbons in furfural and various other solvents.

If it is possible I should appreciate very much obtaining for purposes of comparison a copy of any data you might have on systems of C_4 hydrocarbons in furfural. If you would be intereste I should be glad to send you reprints of the work which we have done in our laboratories since we have calculated some heat of solution data from vapor-liquid equilibrium data. Unfortunately I have not had access to any of the periodicals in which your papers have been published and hence if you have any reprints available I should be very happy to receive them and would be glad to pay any costs involved. In any event, I should welcome hearing from you.

Very truly yours,

firmato: Thomas S. Mertes
Research Fellow in
Chemical Engineering

UNIVERSITY OF DELAWARE
NEWARK, DELAWARE

DIVISION OF CHEMICAL ENGINEERING

U. S. A.
July 8, 1947

Dr. G. Natta
Instituto di Chimica Industriale
Politecnico di Milano
Milan, Italy

Dear Sir:

We have been engaged in the determination of vapor-liquid equilibrium on the systems n-butane, butene-1, and furfural and also on isobutane, butene-1, and furfural. I understand from a mention of your work made in Chemical and Engineering News that you have made determinations of data for several paraffinic hydrocarbons in furfural and are currently engaged in determining heats of solution of hydrocarbons in furfural and various other solvents.

If it is possible I should appreciate very much obtaining for purposes of comparison a copy of any data you might have on systems of C_4 hydrocarbons in furfural. If you would be interested I should be glad to send you reprints of the work which we have done in our laboratories since we have calculated some heat of solution data from vapor-liquid equilibrium data. Unfortunately, I have not had access to any of the periodicals in which your papers have been published and hence if you have any reprints available I should be very happy to receive them and would be glad to pay any costs involved. In any event, I should welcome hearing from you.

Very truly yours,

Thomas S. Mertes

Thomas S. Mertes
Research Fellow in
Chemical Engineering

rc

M.

UNIVERSITY OF DELAWARE
NEWARK, DELAWARE

DIVISION OF CHEMICAL ENGINEERING

August 12, 1947

Dr. Giulio Natta
Banca Commerciale Italiana
14 Wall Street, Room 2525
New York, N. Y.

Dear Dr. Natta:

I was happy to receive your letter of August 11th and I was very pleasantly surprised to heat that you were in this country.

I should most certainly welcome the opportunity of meeting you and discussing mutual problems. If it is convenient with you, I and my co-worker, Mr. Jordan, could come up to New York on Wednesday, August 20. In that event we should probably arrive in the morning about 11:00.

I should appreciate hearing from you as to whether this date is satisfactory.

Very truly yours,

Thomas S. Mertes

Thomas S. Mertes

gg.

Prof. O. Mark
Polimer Research Institute
Polythecnik of Broocklijn
85 Livingstone Street
BROOCKLIJN 2 - NEW YORK

Milano 23 Giugno 1947

Egr.Prof. O.Mark
Brooklin

Caro Professore Mark,

Desidero informarLa che prossimamente dovro' venire negli Stati Uniti e probabilmente faro' il viaggio da Roma a New York in aereo ai primi di Luglio.

Avro' molto piacere di rivederLa e percio' verro' a salutarLa appena arrivato.

Nel mio viaggio negli U.S.A. dovro' esaminare quanto e' stato fatto nel campo della Gomma sintetica, e le novita' principali nel campo dei derivati dell'acetilene, poiche' sono consulente della piu' importante fabbrica italiana di carburo (Soc. Terni) e faccio parte del Consiglio di Amministrazione della Soc. S.A.I.G.S. (consociata della Soc. Pirelli, la piu' grande industria italiana della gomma) che ha fabbricato Buna in Italia durante la guerra

La Soc. Terni disporra' con i suoi nuovi impianti idroelettrici di 2.000.000.000 di Kwh all'anno e intende impiegarne una gran parte nell'industria chimica. La fabbrica di Buna dall'acetilene a Terni della Soc. S.A.I.G.S. ha avuto parte del macchinario asportato dai tedeschi, ma sarebbe facile ricostruirla.Calcoliamo pero' dei prezzi di costo della Buna in Italia superiori a quelli della G.R.S. americana. Desideriamo ora decidere se in base alla tecnica americana converra' riattivare la fabbrica di Terni per produrre Buna, oppure trasformarla utilizzando gli impianti per la produzione di acetilene di acetaldeide per altre produzioni (acetato di cellulosa, resine viniliche, ecc.)

Io faro' il viaggio insieme all'Ing. Giustiniani, consigliere delegato della Soc. Terni.

Le saro' grato se Lei potre' darci dei consigli e presentarci a dei Suoi conoscenti che si interessano di questi argomenti. Sarebbe nostro desiderio anche esaminare la possibilita' di accordi con Societa' americane. Ci interessera' anche conoscere dei costruttori di macchinari relativi all'industria della produzione e lavorazione delle resine sintetiche.

Spero che Lei abbia presto occasione di venire in Europa. In tal caso La informo che abbiamo sempre la nostra villa a Champoluc (vicino al Matterhorn) e avremmo piacere di averLa nostro ospite. C'e' una funivia che va sino a 3500 m. e quindi potra' fare dell'alpinismo senza troppa fatica.

Mia moglie desidera salutarLa ed essere ricordata alla Sua Signora. Molti cordiali saluti

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Longfellow Building, Connecticut Av.N.W.
Telephone: EXecutive 7760
Cable Address: FOODAGRI
Washington 6, D. C.

28 October 1947.

Dear Professor Natta,

I am enclosing herewith a copy of the report of the meeting of the FAO Subcommittee on Wood Chemistry held at Appleton, Wisconsin in September of this year.

The delay in forwarding this report is regretted but was caused by the removal of FAO headquarters from one part of Washington to another and the consequent hold-up in the duplicating department.

It is hoped that this report will prove of interest to you.

Yours sincerely,

N. de Felsovanyi
(Secretary to the Subcommittee)
Technical Officer,
Division of Forestry & Forest Products.

Professor Dott. Ing. Guilio Natta,
Instituto Chimica Industriale,
Politecnico,
Milano, Italy.
Piazza Leonardo de Vinci, 32.

31 Ottobre 1947

Monsieur N. de Felsovanyi
Food and Agriculture Organization of
the United Nations
Organisation des Nations Unies pour
l'Alimentation et l'Agriculture
2000 Massachusetts Avenue, Northwest
Washington 6, D.C.

Cher Monsieur,

Excusez moi si je réponds seulement aujourd'hui à Votre lettre du 29 Aout.

Je suis revenu de l'Amerique le mois dernier, et j'ai trouvé ici beaucoup de travail qui m'a empeché de Vous écrire.

Je Vous envoire maintenant les renseignement que Vous desirez.

I - Periodiques italiennen specialisées dans le domaine de la chimie de pâte et de papier:

Industria della carta
Corso Italia 8 - Milano

II - Associations et instituts qui s'occupent notamment de pâte et de papier:

1) Associazione produttori carta e cartoni
Corso Italia 8 - Milano
2) Ente cellulosa e carta
Viale Regina Margherita 362 - Roma

Par ces mêmes Instituts Vous pourrez obtenir les renseignements statistiques et économiques que Vous desirez.

Les mêmes renseignements Vous pourrez les avoir aussi, mais pas très vites, je pense, par:

3) Ministero Industria e Commercio
Direzione Generale Industria Divisione 50 - Roma

J'ai bien le plaisir de Vous rappeler, Monsieur, e de pouvoir Vous envoyer l'expression de mes cordiales salutations

(Prof.G.Natta)

Cable Address: FOODAGRI

Telephone EXecutive 7750

FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS

ORGANISATION DES NATIONS UNIES POUR
L'ALIMENTATION ET L'AGRICULTURE

~~2000 Massachusetts Avenue, Northwest~~
Washington 6, D. C.

1201 Connecticut Avenue, Northwest

6 Novembre, 1947

Prof. G. Natta
Istituto di Chimica Industriale
Piazza Leonardo de Vinci
Milano
Italia

Cher Monsieur:

Je viens de recevoir votre lettre du 31 Octobre. Je vous remercie beaucoup des adresses que vous avez bien voulu me donner. J'apprécie beaucoup votre amabilité, et je suis entièrement à votre disposition au cas que vous ayez besoin de renseignements quelconques qui se trouvent dans notre domaine.

Espérant de vous revoir à l'occasion de la prochaine réunion de notre Sous Comité pour la Chimie qui se tiendra vraisemblablement au courant du printemps prochain, je vous prie d'agréer, cher Monsieur, l'expression de mes sentiments distingués.

N. de Felsovanyi

Cable Address: FOODAGRI

Telephone EXecutive 7760

FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS

ORGANISATION DES NATIONS UNIES POUR
L'ALIMENTATION ET L'AGRICULTURE

2000 Massachusetts Avenue, Northwest
Washington 6, D. C.

le 29 août 1947

Cher Monsieur,

J'espère que vous vous souviendrez encore de moi. J'ai eu le plaisir de vous rencontrer à Brooklyn, chez le Professeur Mark, à la fin de juillet.

Je m'occupe des questions concernant la chimie du bois ainsi que celles de pâte et de papier. Actuellement, je suis en train de préparer un rapport sur la condition de l'industrie de pâte et de papier en Europe et il me faudrait en outre quelques informations complémentaires au sujet de la situation en Italie, renseignements que je vous prierais de bien vouloir me donner si vous en avez la possibilité:

1. Quelles sont les périodiques italiennes spécialisées dans ce domaine ou qui publient des informations à ce sujet?

2. Quels sont les associations et instituts qui s'occupent notamment de pâte et de papier?

3. Y a-t-il des publications récentes à ce sujet et où ont-elles paru?

4. Quelle est la meilleure source en Italie pour obtenir des renseignements statistiques et économiques récents sur la situation de cette industrie en Italie?

En vous remerciant d'avance de votre grande obligeance et en espérant vous voir à l'occasion de votre prochaine réunion en Europe, je vous prie d'agréer, cher Monsieur, l'expression de mes sentiments les meilleurs.

N. de Felsovanyi

Professeur Dott. Ing. Giulio Natta
Direttore de l'Istituto di Chimica Industriale
Piazza Leonardo de Vinci 32,
Milan, Italie

FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS

ORGANISATION DES NATIONS UNIES
POUR L'ALIMENTATION ET
L'AGRICULTURE

2000 Massachusetts Avenue, Northwest
Washington 6, D.C. tel. 7760

le 29 août 1947

Cher Monsieur,

J'espère che vous vous souviendrez encore de moi. J'ai eu le plaisir de vous rencontrer à Brooklyn, chez le Professeur Mark, à la fin de juillet.

Je m'occupe des questions concernant la chimie du bois ainsi que celles de la pâte et de papier. Actuellement, je suis en train de préparer un rapport sur la condition de l'industrie de pâte et de papier en Europe et il me faudrait en outre quelques informations complémentaires au sujet de la situation en Italie, renseignements que je vous prierais de bien vouloir me donner si vous en avez la possibilité:

1. Quelles sont les périodiques italiennes spécialisées dans ce domaine ou qui publient des informations à ce sujet ?

2. Quels sont les associations et instituts qui s'occupent notamment de pâte et de papier ?

3. Y a-t-il des publications récentes à ce sujet et où ont-elles paru?

4. Quelle est la meilleure source en Italie pour obtenir des renseignements statistiques et économiques récents sur la situation de cette industrie en Italie?

En vous remerciant d'avance de votre grande obligeance et en espérant vous voir à l'occasion de votre prochaine réunion en Europe, Je vous prie d'agréer, cher Monsieur, l'expression de mes sentiments les meilleurs.

firmato: N. de Felsovanyi

USA 1948

JOURNAL OF POLYMER SCIENCE

A PUBLICATION DEVOTED TO THE STUDY OF THE CHEMISTRY AND PHYSICS OF LARGE MOLECULES

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

Carissimo amico! 14/3/48

La ringrazio cordialmente del Suo gentile lettera di 28 febbraio 1948. Sono arrivato a Liège et ho incominciato di dare de conferenze a l'Università. Il mio indirizzo e: Istituto Chimico dell'Università di Liège; Belgio. Il mio tempo qui e molto breve ~~et~~ e devo ritornare negli US lo 24 majo. No so se il sera possibile per me d'andara in Italia e di dare une conferenza.

Published by

INTERSCIENCE PUBLISHERS, INC.
New York, N. Y.

ELSEVIER PUBLISHING CO., INC.
Amsterdam - New York

Naturalmente io sarebbe felicissimo se io potero vederlo e la sua signora. Possibilmente io potero venire a Milano per due giorni e discutare con Lei et gli industriali le nuove progressi sulla gomma a temperatu a bassa.

Prego scrive!

Tanti grazie e molti saluti cordiali

Il suo devotissimo

H. Mark

Milano 28 Febbraio 1948

Chiar.mo Prof. H.Mark
High Polymer Institut Politecnic
BROOKLIN (New-York)

Caro Prof. Mark,

La ringrazio vivamente delle interessanti notizie, che Lei mi ha inviato, sui nuovi tipi di gomma sintetica ottenuti polimerizzando a bassa temperatura con catalizzatore idroperossido di cumene e diazoti-o-eteri.

Le sarei molto grato se Lei potesse inviarmi maggiori notizie sull'argomento.

Ho appreso con piacere che Lei verrà prossimamente in Europa. Gradirei sapere se Lei sarebbe disposto a fare eventualmente una conferenza in Italia ad esempio a Roma, e La pregherei anche di comunicare il Suo indirizzo in Belgio.

Grazie e molti cordiali saluti

Milano 23 Settembre 1948

Mr. Rex Withnack
524 Riversida Drive
New York. N.Y.

Caro Ingegnere,

Approfitto della venuta a New York di un mio amico e compagno di scuola, Ing. Franco Castelli per inviare a Lei ed alla Sua cara Signora saluti cordialissimi.

Ricordo spesso il periodo che ho trascorso a New York e tutte le Sue cortesie. Ho cercato anche di far tesoro delle raccomandazioni che Lei mi ha scritto nella Sua ultima simpatica lettera. L'Ing. Giustiniani è invece incorreggibile ed è sempre immerso nel lavoro ma non più di sette giorni alla settimana e di 31 giorni al mese soltanto, perchè Giulio Cesare e poi Papa Gregorio quando riformarono il calendario non pensarono a fare delle settimane con più di 7 giorni e dei mesi con più di 31 giorni, ignorando le esigenze di uomini dello stampo di Giustiniani.

Ho fatto con lui il luglio scorso un interessante viaggio in macchina nelle tre zone della Germania e mi debbo ritenere fortunato se sono ritornato sano e salvo e se non siamo stati arrestati dalla "Militar Police" per eccesso di velocità. Ho fatto anche un viaggio in Jugoslavia prima delle elezioni e sono andato a pescare le trote sulle rive della Savitza usando le canne da pesca col lancio che avevo comperato a New York. Mia moglie ha preso 7 trote in mezz'ora ed ha dichiarato al ministro comunista che ci accompagnava e che non era riuscito a pescarne neanche una: " Vede che i metodi capitalistici sono ben superiori ai sistemi comunisti!" . Dopo di ciò non c'è da meravigliarsi se Tito ha cambiato indirizzo politico.

Quest'estate ho fatto qualche escursione sulle Alpi nel gruppo del Monte Rosa, e recentemente un viaggetto in Belgio ed Olanda.

E Lei quando verrà in Italia? Mentre in Svizzera ed in Belgio che sono i paesi più ricchi d'Europa e che non hanno sofferto della guerra non si parla che della imminenza di una altra guerra, in Italia e negli altri paesi che più hanno sofferto nessuno può credere ad una possibilità di nuove guerre. Speriamo che non sia la bomba atomica, ma solo la paura della bomba atomica, a salvare la situazione.

L'Ing. Castelli potrà darLe più dettagliate notizie dell'Italia e penso che avrà molto piacere di conoscerla e di discorrere con Lei essendo anche lui un ingegnere elettrotecnico.

Mi ricordi alla Sua gentile Signora. A Lei molti cordialissimi saluti

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
DR. H. MARK, DIRECTOR

TRIANGLE 5-6920

February 6, 1948

Prof. Dott. Ing. Giulia Natta
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

We have been extremely pleased about the 250 beautiful cards which we have received from your wife and we are returning your kind wishes for the New Year very much and most cordially.

Have you heard about the new progress made on the synthetic rubber field? It seems now that with cumenehydroperoxide as catalyst and with diazo-thio-ethers as activator and modifier one can make at 10° a Buma S type rubber which surpasses natural rubber essentially in most properties, particularly in rapid cure, abrasion and hot terrible strength. This is probably the most important progress on the synthetic rubber field since the discovery of modifier action.

I shall be writing professor at the University of Liege in Belgium from March until May and it would be very nice to see you and discuss a few recent developments with you.

With kindest personal regards from my wife to your wife and best wishes, I am

Respectfully yours,

H. Mark

H. Mark
Director of Polymer Research

HM:G

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
DR. H. MARK, DIRECTOR

TRIANGLE 5-6920

March 8th, 1948

Professor Giulil Natto
Ordinario de Chimica Industriale
Politecnico de Milano

Dear Professor Natto:

This is to acknowledge receipt of your letter of February 28th and to inform you that Dr. Mark is now in Europe and will be back at the end of May.

We shall forward your letter immediately and you will hear from him, I am sure, at the earliest possible date.

Yours very truly,

(Mrs) Katherine E. Fearon

Katherine E. Fearon
Secretary to Dr. Mark

Milano, 24 Marzo 1948

MF.

Prof. H.Mark
Institut de Chimie
Université de
Liège

Carissimo Collega,

Sono molto lieto di apprendere che Lei probabilmente verrà in Italia.

Io consiglierei il viaggio dopo le elezioni politiche che avranno luogo il 18 Aprile.

Nel caso che Lei volesse fare una conferenza a Roma, ai primi di Maggio cercherei farLa invitare dal"Consiglio Nazionale delle Ricerche", che potrà rimborsarLe le spese di viaggio.

Se Lei vuole leggere la conferenza in Italiano, io potrei prepararne la traduzione dall'inglese in italiano.

Il viaggio Le porterà via poco tempo, perchè c'è una linea aerea Bruxelles-Milano-Roma, ma se Lei a tempo e volesse fermarsi a Milano con la Signora, io e mia moglie saremo felici di averli nostri ospiti. Da Milano potrà partire per Roma la sera con il treno in vettura letto ed arrivare a Roma la mattina presto.

A Roma Lei potrà incontrare l'Ing.Giustiniani, che Lei a conosciuto a New York, e parlare anche con lui dei progressi della gomma.

Molti cordiali saluti

UNIVERSITÉ DE LIÈGE

FACULTÉ DES SCIENCES
APPLIQUÉES

Liège, le 15/4 19 48

Carissimo Amico,

Je vous remercie beaucoup pour votre aimable lettre du 3 avril et pour le manuscript très intéressant qu'il contient. Je l'ai mis immédiatement au Professeur Doty pour publication dans le Journal Polymer Science. Nous étions tous très malheureux que vous ne pouviez pas venir à Liège, mais nous étions très heureux d'avoir professeur Natta avec nous.

Avec mes meilleurs sentiments et salutations

Je suis toujours votre

très dévoué

H. Mark

Milano, 3 Aprile 1948

Caro Prof. Mark,

Le invio una breve nota preliminare su alcune ricerche fatte sulla velocità di propagazione degli ultrasuoni negli alti polimeri allo stato fuso o di soluzione.

Da esse risulterebbe che tra gli alti polimeri sareb= bero maggiormente compressibili quelli che presentano piu fre= quenti e lunghe rqmificazioni; che non quelli non ramificati o meno ramificati.

Se Lei lo crede opportuno, La pregherei di presentare questo nostro lavoro al Congresso di Liegi, oppure di pubbli= carlo su qualche rivista americana.

Spero di vederLa presto in Italia.

grazie e cordiali saluti

Allegato:

1 relazione

Sig. Prof. H. Mark
Université de Liége
Institut de Chimie
Quai Roosevelt, 1 B

Milano 17 maggio 1948

Egr.Prof.Mark
Institut de Chimie
Université de
L I E G I
Quai Roosevelt, 1 B

Carissimo amico,

Sono proprio spiacente che Lei non sia potuto venire in Italia, ma spero che presto si presenti un'altra occasione per Lei di venire in Europa. E se sarà d'estate La invito sin d'ora a passare qualche giorno nella nostra villa a Champoluc ai piedi del Matternorn, insieme alla Sua Signora, come nostri ospiti.

Noi stiamo continuando i lavori sulla velocità di propagazione degli ultrasuoni sugli alti polimeri e su composti organici diversi e si intravedono dei risultati molto interessanti. Manchiamo però in Italia di molti prodotti chimici, e vorrei perciò mandare il mio collaboratore Prof. Baccaredda negli S.U.A. a spese del Consiglio Nazionale delle Ricerche per qualche mese per continuare gli studi utilizzando le grandi possibilità locali che si hanno negli S.U. di procurarsi dei composti chimici organici e degli alti polimeri.

Il Prof. Baccaredda potrebbe portare con se dall'Italia un apparecchio per la determinazione della velocità di propagazione degli ultrasuoni. L'apparecchio completo costa poco (circa 400 dollari) e si potrebbe lasciarlo poi in America; se a qualcuno interessasse di tenerlo.

Nel caso che Baccaredda potesse essere ospitato nel Suo laboratorio verrebbe molto volontieri a Brooklin verso il mese di Ottobre o Novembre.

Le sarei intanto molto grato se Lei potesse mandarmi dagli S.U. dei campioni di composti ad alto peso molecolare di cui Lei ritenesse interessante l'esame con gli ultrasuoni.

Io La ringrazio molto dell'interessamento che Lei dimostra per i nostri lavori.

Quest'estate io dovrò andare in Argentina e Brasile, e può darsi che nel viaggio di ritorno riesca a fare una scappata sino a New York.

Molti cordiali saluti anche alla Sua Signora.

Suo Aff.mo

P.S. La pregherei di confermarmi se Lei ha inviato al Journal of Polymer Science il lavoro che Le ho inviato a Liegi il mese scorso a mezzo del Prof. Natta.

Milano 27 aprile 1948

Egr.Prof.A. Mark
Institut de Chimie
Université de
L I E G E
Quai Roosevelt , 1 B

Carissimo Prof. Mark,

In seguito ad accordi presi col Prof. Caglioti ho il piacere di comunicarLe che il Consiglio Nazionale delle Ricerche La invita a tenere una conferenza a Milano. Nel caso che Lei ne avesse il tempo, potrebbe farne anche una a Roma.

Anche nel caso che Lei facesse la conferenza solo a Milano le spese di viaggio e permanenza in Italia Le verrebbero rimborsate dal Consiglio Nazionale delle Ricerche.

Noi saremmo molto lieti di rivederLa a Milano e speriamo che Lei possa trovare il tempo per venire. Io spero che Lei accetti.

La prego di comunicarmi quale sarà la data del Suo arrivo e quale giorno Lei preferisce per tenere la Sua conferenza. Se Lei mi invia prima il testo in inglese, in tedesco o in francese, potrò prepararLe la traduzione, perché sarebbe preferibile che Lei la leggesse in Italiano, dato che Lei lo conosce bene.

Molti carissimi saluti ed arrivederLa presto.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

November 24th, 1948

Dear Professor Natta:

I am taking the liberty of submitting to you 2 grams of a polystyrene fraction for investigation. As this sample will be sent out to the various laboratories around November 1st, 1948, it has been given the Code number 11-1-48. This sample has been supplied to us by the courtesy of the Plastics Division of the Monsanto Chemical Company in Springfield, Massachusetts and I am taking this occasion to express the sincerest thanks to Dr. N.N.T. Samaras and Dr. E.H. Merz for their kind and helpful cooperation.

Sample 11-1-48 is the result of a single fractionation of a large batch of polystyrene; it is by no means a "sharp" fraction, but it is a polymeric material of which we know the exact history of preparation and of which there is a relatively large quantity at ~~one's~~ our disposal (altogether about 500 grams). It was therefore felt that it would be a good starting material for our cooperative work on the characterization of highpolymers and on the development of standards in the field of macromolecules. We all probably agree that this work will extend over many years and will be slow and laborious. The sooner we start, the better progress we shall presumably make.

Therefore, I felt we should not wait until all polystyrene fractions are available but rather send fraction 11-1-48 around as soon as it is ready so that it can be used immediately and work on our project can be started whenever in one of the cooperating laboratories instruments should not be occupied with other work and operators should be available for measurements.

You will find enclosed two copies of a somewhat detailed description

of the preparation and characteristics of fraction 11-1-48 for your information; if you want any additional data or more material, please do not hesitate to write.

In order to make the results of the measurements in all laboratories as comparable as possible, it would greatly be appreciated if a detailed report on the work would be prepared. In particular it would be good to know:

1). How were the solutions prepared? Temperature, type of vessel, mode of shaking, etc.

2). What solvents were used? It would be best to use benzene or toluene and methylethylketone. If there should be difficulties in certain locations to obtain pure solvents, please kindly write and we shall provide the solvents.

3). What osmometer and what membrane was used. Dynamic or static method.

4). It would be desirable to have 4-5 points in the concentration range between 0.1 and 0.5%. Please indicate temperature of measurement.

5). What viscometer was used; what was the efflux time of the pure solvent?

6). Please measure the viscosity at 4-5 concentrations in the range 0.1 and 0.5%. If possible measure at 2-3 temperatures.

7). What lightscattering equipment was used; what wavelength; what instrument to determine the refractive index?

8). Please measure the turbidity at 4-5 concentrations in the range between 0.1 and 0.5%. If possible at 2-3 temperatures.

9). Please measure the dissymetry by determining the turbidity in 4 or 5 directions.

10). If measurements with the ultracentrifuge or with flow birefringence are carried out, please give a detailed description of what has been done.

I hope that these points will give a general indication as to the character of the report; it is probable that there will be reasons to deviate here and there from this pattern but it would be appreciated if, in general, these deviations would only be small. I am looking forward with greatest interest to your results and am always, with kindest personal regards and best wishes,

Yours very sincerely,

H. Mark

HM/fn

H. Mark

Brief description of sample 11-1-48

Commercial monostyrene containing about 10 ppm of para/tertiary butyl catechol was polymerized in bulk at 93°C without the use of a catalyst. After 12 hours, 15% conversion was reached and the reaction was stopped by cooling to 20°C in less than 15 minutes. 0.1% hydroquinone was then added. The polymer was isolated by dripping the solution of polymer in monomer into 10 volumes of methanol; it was filtered and repeatedly washed with methanol. The polymer was then dissolved in methyl ethyl ketone (MEK) to make a 2% solution and precipitated in the form of a porous thread having a high surface to weight ratio by running a fine stream of the polymer solution into 10 volumes of stirred methanol.

The twice precipitated material was then dissolved in methyl ethyl ketone to make a 1.5% solution; methanol was added until the solution became cloudy. The temperature was raised until all the material was again dissolved, then lowered slowly to precipitate a fraction which came down as a gel. This gel was drawn off, dissolved in MEK and again precipitated with a high surface to weight ratio in ethanol.

Altogether, 40 fractions were obtained. The fractions were vacumm dried at room temperature and stored at room temperature under CO_2 in the absence of light.

The unfractionated polymer gave the following values:

Intrinsic viscosity at 28.5°C. in toluene: 1.59 + 0.03
Osmotic molecular weight (Fuoss Osmometer): 550,000

Fraction number 2 (material 11/1/48) gave:

Intrinsic viscosity at 28.5°C. in toluene: 2.15 + 0.03
Osmotic molecular weight (Fuoss Osmometer): ca. 1,000,000

It may be added that a noticeable sharpening of this fraction can be obtained if the material is reprecipitated from a solution of 1 to 2% and the middle fraction alone is used. It may be worthwhile for those who wish to investigate the material more thoroughly first to measure it as it is and then repeat the measurements after reprecipitation.

Mailand, 15.10.1948

Editorial Dept.
Interscience Publishers, Inc.
215 Fourth Avenue
New York City (3)

Dear Sirs,

I am enclosing to the present letter the corrected galley proofs and the manuscripts of the article "La Vitesse de Propagation des Ultra-sons dals les Macromolécules"

Yours sincerely

C. L. MANTELL, Ph. D.
Consulting Chemical Engineer
451 Washington Street
New York 13, N. Y.
CAnal 6-4028
6-4029

December 31, 1948

Professor Giulio Natta,
Politecnico di Milano,
Piazza Leonardo da Vinci 32,
Milano,
Italy.

Dear Professor Natta:-

During the last decade new and significant developments in the chemistry and technology of plastics and synthetic elastomers (rubbers) have made the Plastics Industry in the U.S.A. one of the foremost chemical industries of the country. It is thus no wonder that laboratories and manufacturing organizations outside the U.S.A. are highly interested in many of these developments and a number of inquiries from various countries were directed to both Dr. H. F. Mark and myself.

In order to be able to treat such inquiries more efficiently and in detail, we have decided to collaborate in an advisory capacity with an existing and well known consulting organization, the firm of C. L. Mantell. In the future any new inquiry reaching us will be turned over to Dr. Mantell's firm and the new plastics department will deal with it under our close supervision.

Specifically, the department deals with problems of scientific and technological nature arising in the fields of:

1. Plastics
2. Synthetic elastomers
3. Adhesives
4. Plasticizers and stabilizers.

To elucidate the scope of the department and to show the type of service it is able to render, permit us to cite some examples. Among the materials with which the department is primarily concerned are:

Plastics:

New fluorinated plastics, withstanding temperatures up to 300° C.;
Heat resistant polystyrene, withstanding prolonged exposure to boiling water: flexible polystyrene;
Flame resistant cellulose acetate;
Low pressure laminates and molding compounds;
Polyesters of high softening range.

Rubbers:

Elastomers which remain soft and rubbery even at very low temperatures;
Elastomers exhibiting high tensile strength at high temperatures;
Elastomers having exceptionally good aging characteristics.

Adhesives:

New types of pressure sensitive adhesives.

Plasticizers:

New types of plasticizers with improved volatility and migrative characteristics;
"Solid" plasticizers.

Stabilizers:

New anti-oxidants;
Molding aids which prevent decomposition of plastics and elastomers during the molding cycle.

The department is set up to render the following services:

1. Information of theoretical nature, such as:

Methods of average molecular weight determination;
mechanism of plastication and stabilization;
copolymerization as a means to change physical and mechanical characteristics.

2. Information of technical nature, such as:

   Polymerization processes and other manufacturing procedures; data and characteristics of specific plastics and elastomers; application of plastic raw materials and finished products.

3. Plant design, machines and equipment. For instance:

   Complete design for polymerization plants; equipment design and factory outlay for plastication, compounding and coloring of plastics and elastomers; information on modern molding machines, film rolling and casting equipment, extruders, plasticators, etc.

4. Economic surveys and market research.

I trust that the above mentioned examples are illustrative of the work which the department is going to undertake. Supported by the research, development, and engineering staff of Dr. Mantell's organization, we can assure you that the problems submitted to us will be carefully investigated from their scientific, technological, engineering, economic, and financial aspects. We will also appreciate it if you kindly direct the attention of your friends and associates toward our organization.

Very truly yours,

W. P. Hohenstein

WPH:D

Milano, 15 Ottobre 1948

Egr.Prof. Hohenstein
Laboratorio Alti Polimeri
Politecnico di
BROOKLIN

Caro Professore,

La ringrazio vivamente per la Sua visita a Milano e per gli estratti che Lei mi ha fatto inviare delle pubblicazioni della Soc. Petrochemical. Ho conosciuto a Bruxelles il Dr. Monti della Petrochemical che mi ha rifer to sulla interessante attività di tale Società.

Le presento il latore della presente Ing. Fornara, direttore tecnico della Soc.Industria Gomma Sintetica che avrà piacere di conoscerLa. L'Ing. Fornara viene in America per approfondire lo studio della ricostruzione dei nostri stabilimenti di Terni e di Ferrara, che comprendono anche una produzione di stirolo ed eventualmente di polistiroli.

La prego di porgere i miei saluti al Prof. Mark. Spero di avere occasione di rivederLa presto e Le invio molti cordiali saluti

Prof. GIULIO NATTA
Piazza Leonardo da Vinci 32
MILANO

Milano, 19.4.1948

Dear Professor Hohenstein,

I hope to come to Lugano one day starting from the 29 th. of April to the 1st. May.-

It will be a great pleasure for me to mett you there and have a talk on polistyrene and to know your opinion on the most convenient process for obtaining olephines through special crakings.

I can not tell you on which day it will ne possible for me to come to Lugano, because my passport will be renewed during these days and perhaps it will take some time more than usual.

In the case I shall not have the possibility to come, I should be very greatful to you if you could come to Milano. It takes only 2 hours by train.
We should pay you the cost of your coming and staying here.
I believe it could be very interesting for you and for us your visit to Milano.

Looking forward to the pleasure of seeing you I remain yours.

PETRO CARBON LIMITED
TWINING ROAD
TRAFFORD PARK
MANCHESTER,17

Prof. GIULIO NATTA
Piazza Leonardo da Vinci 32
MILANO

Milano, 19.4.1948

Dear Professor Hohenstein,

I hope to come to Lugano one day starting from the 29 th. of April to the 1st. May.-

It will be a great pleasure for me to mett you there and have a talk on polistyrene and to know your opinion on the most convenient process for obtaining olephines through special crakings.

I can not tell you on which day it will ne possible for me to come to Lugano, because my passport will be renewed during these days and perhaps it will take some time more than usual.

In the case I shall not have the possibility to come, I should be very greatful to you if you could come to Milano. It takes only 2 hours by train.
We should pay you the cost of your coming and staying here.
I believe it could be very interesting for you and for us your visit to Milano.

Looking forward to the pleasure of seeing you I remain yours.

PETRO CARBON LIMITED
TWINING ROAD
TRAFFORD PARK
MANCHESTER.17

PETROCARBON LIMITED

LONDON OFFICE
ADELAIDE HOUSE,
LONDON BRIDGE,
LONDON, E.C.4
TELEPHONE: AVENUE 4794

CONSTRUCTION AND
DEVELOPMENT OFFICES
CLARENDON HOUSE,
CLARENDON ROAD,
ECCLES, MANCHESTER
TELEPHONE: ECCLES 3492

RESEARCH LABORATORIES:
TWINING ROAD, TRAFFORD PARK, MANCHESTER, 17
TELEPHONE: TRAFFORD PARK 2651

Our Ref:WPH/SB. 12th April, 1948.

Professor. G. Natta,
Piazza Leonardo Da Vinci 32,
Milano. Italy.

Dear Professor Natta,

Thank you very much for your kind letter which reached me only after my return from Belgium, where I attended a Congress on Polymer Chemistry and had the pleasure of making the acquaintance of Professor Nasini of Tureno.

I shall of course be delighted to meet you and have made tentative arrangements to be in Lugano during the week from April the 26th until May 1st; would it be possible and convenient for you to meet me there? In case you can make it, would you kindly advise me by wire addressed to Petrocarbon and I shall then, by wire, fix a definite date with you.

Looking forward to the pleasure of seeing you, I remain.

Sincerely yours,

W. P. Hohenstein.

W. P. Hohenstein.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK
DEPARTMENT OF CHEMISTRY

March 2, 1948

Prof. Giulio Natta
Direttore dell'Istituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 23
Milano, Italy

Dear Professor Natta:

I remember with pleasure the discussion that I had here in New York with you and the other gentleman of the Terni (Roma). Unfortunately, I have forgotten the name of this gentleman and have mislaid his calling card. So, please excuse me if I refer to him in this manner.

As I recall from our discussion, you and this gentleman were quite interested in the possibility of the production of polystyrene in Italy according to the process of suspension polymerization. As I told you then, this process has been worked out technically to completion and is employed in America to produce a large portion of the polystyrene production.

More than ever, I am convinced that polystyrene will play a most important part in the field of plastic raw materials, and I think that Italy would be a very good place to produce it for domestic consumption and also for export to Southern and Eastern Europe, the Middle East, and North Africa.

I am sailing from New York on March 12th to Europe, and I shall stay in England for approximately three weeks. From there I shall proceed to Belgium, France, and Switzerland on a lecture tour. I expect to be in Switzerland some time at the end of April, and I shall be delighted to have an opportunity to talk to you and the gentleman from the Terni about this matter. As I do not know as yet the exact date of my arrival in Switzerland, I would suggest that you write to me in England, if there still is a basic interest in this matter. If so, then I am prepared to come to Italy in case you and your associates would not prefer to meet me in Switzerland. My address in England is, c/o Petrocarbon Ltd., Twining Road, Trafford Park, Manchester 17, England. Hoping to hear from you soon, I remain, with best personal regards,

Very truly yours,

W. P. Hohenstein
Prof. of Polymer Chem.

WPH:TG

ALDEN H. EMERY
EXECUTIVE SECRETARY
REPUBLIC 5300

AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EXECUTIVE SECRETARY

WASHINGTON 6, D.C.
1155 SIXTEENTH ST., N.W.

October 1, 1948

Dear Member:

Enclosed is a statement of your 1949 membership dues and subscription charges based upon the assumption that you wish to continue to receive the journals to which you subscribed in 1948. You will find subscription rates for each of our journals on the card bill in case you wish to change your order.

In spite of continued increase in costs, the American Chemical Society has decided to make no changes in its dues or subscription rates for 1949. We wish to make chemical literature available to all members of the Society at the lowest possible expense to them in the belief that this will help the progress of our science throughout the world.

It is gratifying to note that mail deliveries of our journals now are made more promptly than in recent years and that losses are fewer. Nevertheless, it is still impossible for us to guarantee delivery.

We realize that there are delays in obtaining dollar exchange in many countries. Since we are required by the Bylaws of the Society to remove from our subscription list on March 1 the names of all who have not sent in remittances, we suggest that you make application for necessary funds as soon as possible. Only in this way can you be sure to receive journals without interruption.

Cordially yours,

Alden H. Emery

Alden H. Emery
Executive Secretary

AHE:ww
Enclosure

AMERICAN CHEMICAL SOCIETY

OFFICE OF THE SECRETARY
Washington 6, D. C.
1155 Sixteenth Street N.W.

The Membership Committee has endorsed your application and has elected you a member, senior grade, of the American Chemical Society. It is a pleasure to welcome you into this organization and I do so in anticipation of a long pleasant, and mutually beneficial association.

The American Chemical Society is engaged in an extensive program for the betterment of the science and the profession and for service to the public. It is hoped that we can work together in the furtherance of these aims.

Enclosed is your membership card and some membership and subscription information. Under separate cover we are sending you a pamphlet, "It's Your Society," describing activities in which we hope you will participate.

Personal contact and correspondence with members are always a pleasure to the staff. Call on us and let us hear from you at any time that we can be of service.

Sincerely yours,

Alden H. Emery

Alden H. Emery
Secretary

Address Reply to Dues Dept.

June 3, 1948

VIA AIR MAIL

Casa Editrice Libraria
Ulrico Hoepli
Milan, Italy

Gentlemen:

Reference is made to your letter of May 22 in which you express disappointment because of our failure to handle your orders in a more expeditious manner. We are sorry this situation has arisen and can readily appreciate your feelings. However, a thorough review of our records discloses the following facts:

On January 12, you submitted order No. 6179 to which we requested more specific information to properly invoice you. Your reply to our inquiry was not received in this office until March 16 at which time you stated it was to cover the membership renewal of Prof. Giulio Natta. However, while awaiting your reply we received on February 10 an application for Prof. Natta's reinstatement from Dr. V. Molinari of Plainfield, New Jersey, accompanied with remittance covering the partial cost. On April 13 Dr. Molinari forwarded the outstanding balance and Prof. Natta's account was credited paid on April 27. His name was added to the May 6 mailing list and he has since acknowledged receipt of INDUSTRIAL & ENGINEERING CHEMISTRY.

Prof. Natta was elected to membership on the basis of his own personal qualifications and journals are being sent to Via Mario Pagano 54, Milano. However, since your letter stated that the journals should be directed to ISTITUTO DE CHIMICA INDUSTRIALE DEL POLITECNICO-Piazzale L. da Vinci, 32 Milano, please advise which of the two addresses is correct.

Comments concerning any aspects of the Society which do not meet with your approval are always welcome, but you can readily see that the Membership Committee did not delay in acting upon the application for reinstatement of Prof. Natta.

Very truly yours,

AMERICAN CHEMICAL SOCIETY

By: Anne Safay

cc: Professor Natta

Milano 24 Giugno 1948

American Chemical Society
Washington 6, D.C.

Dear Sirs

I receive your letter and the copy of the letter you have written to "Xasa Editrice Libraria Geepli" on the 3d of June. I had long time ago asked Heepli if he could cover my membership renewal of your Society.

But meanwhile I had the chance to meet Dr. Molinari on his way back to U.S. and I asked him to remit the payment to your Chemical Society hoping to have the thing settled in a shorter time.

Will you please send again the reviews to my adress via Marie Pagano 54 - Milano

With best regards yours sincerely

Milano 26 maggio 1948

GN/mr

American Chemical Society
Office of the Secretary
Washington 6, D.C.
1155 Sixteenth Street N.Y.

Dear Sirs,

I thank you for your letter in which you tell me that my membership is effective from January 1st, 948. I have received only the number of May of the Industrial and Engineering Chemistr and I should be glad if you could send me the prior issues of Industrie and Engineering Chemistry and of Chemical and Engineering News beginnung from January.

With my best regards

Yours

INTERSCIENCE PUBLISHERS, INC.

215 FOURTH AVENUE - NEW YORK 3, N. Y.
TELEPHONE: ALGONQUIN 4-0702
CABLE ADDRESS: INSCIENCE NEWYORK

Editorial Department
MIRIAM T. MALAKOFF

September 30, 1948

Dr. G. Natta
Centro di Chimica Industriale del Consiglio
Nazionale delle Richerche Pressa il Politechnico
Milano, Italy

Re: Journal of Polymer Science
Prod. #240

Dear Dr. Natta:

We are enclosing 2 sets of galley proofs, the retyped manuscript, and your original manuscripts of your article "La Vitesse de Propagation des Ultra-sons dans les Macromolecules".

As noted in the enclosed "Instructions to Authors" this material should be checked carefully against the retyped manuscript and returned to us with all corrections clearly marked wherever they are to be made. Please watch for questions on the galleys and on the manuscript; all questions should be answered.

An order form for additional reprints is included for your convenience.

The duplicate set of galley proofs is for your files.

Very truly yours,

INTERSCIENCE PUBLISHERS, INC.

Allen Kent

Allen Kent

AK:GSG
enc.

USA 1949

FIFTEEN GARDEN STREET
MONTCLAIR, NEW JERSEY

June 14,1949

Professor Giulio Natta
Politecnico di Milano

Dear Professor Natta,

Thank you for your kind letter of June 3,1949.

I suggest that you try a "poorer " solvent for the polyvinyl isobutyl ethers. This will enable you to prepare solutions of higher solids content and at the the same time there will be greater chance that the configurations or shapes of the dissolve macromolecules will be different. Perhaps n-butanol, methyl ethyl ketone or a mixture of toluene and methanol would be suitable.

We have found the greatest differences in physical properties by testing the polymers free of solvent or plasticizer. Cant you mold the polyvinyl isobutyl ethers between two plates in order to test the ultrasonic velocity of the polymer alone. It is possible that the frequency of the energy which you are using is not suitable to show up the differences in polymer structure. The elastic and rheological responses of these polymers depend greatly on the rate of applying the stress.

Can you give me the name and address of someone in Italy familiar with your commercial vinyl type polymers. I am writing a book on "Vinyl and Related Polymers" and would like to include your tradenames, company names,etc. Vipla is the only one I have hear of. I would greatly appreciate your help in this matter and would give acknowledgement in the book.

I am teaching and plan to do research with Professor H. Mark at the Polytechnic Institute of Brooklyn beginning next year and may have other samples at that time.

Best wishes for a pleasant summer,

Sincerely

Calvin E. Schildknecht

Calvin E. Schildknecht

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

January 26th, 1949

Dear Sir:

Through the courtesy of Dr. R.S. Spencer of the Dow Chemical Company in Midland, Michigan we have obtained three more polystyrene fractions in sufficient quantities to pass them out to the cooperating laboratories in the frame of the polymer sample exchange initiated by the Commission of Macromolecules in the International Union of Chemistry.

These three samples will be sent to you by normal mail within the next few days and will carry the code 2-1-49 sample 1,2, and 3.

Dr. Spencer has released the following information on this material:

The parent polymer was a thermal, mass polymer prepared according to the following schedule: 48 hours at 77°C., 8 hours at 95°C., and 48 hours at 200°C. The fractionation was carried out by making up a 1.5% solution in methyl ethyl ketone, adding sufficient n-butanol to produce a very slight turbidity, and then distilling off sucessive amounts of liquid, under agitation, at 40°C. and a pressure of about 70 mm. mercury. The resultant gel precipitates were recovered, diluted to about 4-5% polymer with methyl ethyl ketone, and the solution slowly poured into an agitated volume of methanol. The solution-precipitant ratio for this step was about 1:10. The precipitates thus obtained were dried at about 60°C. in a vacuum oven. Molecular weights of the fractions were determined by light scattering, appropriate fractions combined, dissolved in methyl ethyl ketone, and reprecipitated and dried according to the above procedure.

The approximate molecular weights of the fractions you have are as follows:

Sample 1;	260,000.
Sample 2;	670,000.
Sample 3;	110,000.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

It seems that these three fractions together with the 11-1-48 fractions should cover the whole range of molecular weight in a fairly satisfactory manner although there is reason to believe that nome of these four samples represents a particularly sharp fraction. On the other hand it is unlikely that there will be any really sharp fraction available in sufficient quantities to be passed out to all cooperating laboratories.

Therefore I felt that we should send out these three fractions and induce them in the general progress of molecular weight determination.

With kindest personal regards and best wishes
I am, as always

Sincerely yours,

H. Mark

HM:fn

H. Mark

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
DR. H. MARK, DIRECTOR

June 24th, 1949

TRIANGLE 5-6920

Professor Dott. Ing. Giulio Natta
Ordinario di Chimica Industriale
Politecnico Di Milano
Piazza Leonardo Da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of June 17th; I am glad that Professor Baccareda will be with us in the Fall and I hope he will benefit from his stay in the U.S.

As to my trip to Italy I did not think that any University should pay me any money for my lectures at all, but that a few Industries may be interested in getting up to date information on such developments as:

The new low temperature rubbers
The new high tenacity rayons and wood pulps
The new high softening polystyrenes

and the like. I am going to give two such reports in Belgium and the Companies pay me for them at a rate of 2500 - Belgian Francs per day. This is about 50,000 Lire and that was the reason why I mentioned this figure.

If I could give 2 or 3 such reports I could finance my trip from England to Italy myself and would not need any money from a University or a Chemical Society. I would not like to take any money at all from an Educational Institution. It may well be, of course, that the Italian Industries like Suia Viscosa, Pirelli, Montecatini, etc., are already very well informed about the most recent progress and would not be interested in any report on it. In any event you can imagine how much I would like to visit Italy and to see again after 12 years of absence all its marvelous beauties. The greatest event would be if we could organize a trip to Campoluc. I have never been in this most beautiful part of the Alps.

Please kindly accept my sincerest thanks for all your kind activities on my behalf and be assured that I am looking forward with the greatest interest and pleasure to your next letter.

Sincerely yours,

H. Mark f.n.

HM:fn

H. Mark

Risponde la segretaria dell'ing.
Guistiniani -

PETROCARBON LIMITED

REGISTERED &
LONDON OFFICE:
170, PICCADILLY,
LONDON, W.1.
TELEPHONE: MAYFAIR 6618-10 LINES
TELEGRAMS: 'PETROCARB, LONDON'

CONSTRUCTION AND
DEVELOPMENT OFFICES
CLARENDON HOUSE,
CLARENDON ROAD,
ECCLES, MANCHESTER
TELEPHONE: ECCLES 3492

RESEARCH LABORATORIES:
TWINING ROAD, TRAFFORD PARK, MANCHESTER, 17
TELEPHONE: TRAFFORD PARK 2651
TELEGRAMS: "PETROCARB, MANCHESTER"

Our Ref: WPH/BW. 27th. October, 1949.

Prof. Ing. Giulio Natta,
Politecnico Di Milano,
Piazza Leonardo Da Vinci 32,
MILANO, Italy.

Dear Professor Natta,

I heard from Professor Mark that at the time of his visit to Italy you were still travelling in South America. However, I hope that by the time I propose to come to Italy I shall have the pleasure of seeing you in Milano.

I have written to-day to the Ing. Guistiniani, proposing as a possible date for our meeting November 23rd. On this date I would arrive in Milano, and would stay until November 25th. I hope that if you are in Italy, this date will prove convenient for you. I shall be very glad if you will notify me accordingly; my addresses are as follows:-

Up to November 10th. - Petrocarbon Ltd., Twining Road, Trafford Park, Manchester, 17.

From November 10th/13th. - The Berkeley Hotel, Berkeley St., London, W.1.

From this date onwards I shall be travelling through Belgium, Holland, and France, staying at various Universities for a number of days. For this reason, therefore, I am unable to give you any definite address for the days between November 13th. and 23rd.

Looking forward with great pleasure to seeing you soon,

I remain, with best personal regards,

Yours sincerely,

pp W. Peter Hohenstein, Professor of polymer Chemistry.

PETROCARBON LIMITED

LONDON OFFICE
ADELAIDE HOUSE,
LONDON BRIDGE,
LONDON, E.C.4
TELEPHONE: AVENUE 4794

CONSTRUCTION AND
DEVELOPMENT OFFICES
CLARENDON HOUSE,
CLARENDON ROAD,
ECCLES, MANCHESTER
TELEPHONE: ECCLES 3492

RESEARCH LABORATORIES:
TWINING ROAD, TRAFFORD PARK, MANCHESTER, 17
TELEPHONE: TRAFFORD PARK 2651

Our Ref:S/32. WPH/SD. 12th April, 1949.

Professor Giulio Natta,
Piazza Leonardo Da Vinci, 32,
Milano,
Italy.

My dear Professor Natta,

Thank you very much for your kind letter of the 6th April. I am looking forward very much to meeting you in Milano. I do not know exactly what date I shall arrive there but it will be sometime between the 26th and 29th April. I shall immediately contact you and hope that we shall get together for a long talk.

I am with Dr. Kind now, who told me of the interesting discussions that he had with you. I am very glad to hear that you are now considering seriously the manufacture of styrene.

With kindest personal regards, I remain.

Sincerely yours.

W. P. Hohenstein.

W. P. Hohenstein.

Milano, 7 Febbraio 1949

Chiar.mo Prof. H. Mark
Institut of High Polymer Research
Polytechnic of Brooklin
Livingston St. 72
BROOKLYN NEW YORK

Caro Professore Mark,

La ringrazio della Sua gentile lettera. Saremo molto lieti di incontrarla in Italia in occasione del prossimo congresso di chimica. Non so però se per ragioni organizzative si potrà fare il congresso nel 1949 oppure se si dovrà rimandarlo al 1950.

Le avevo scritto tempo fa riguardo ad un mio assistente, il Prof. Baccaredda, che ha ricevuto una borsa di studio dal Consiglio Nazionale delle Ricerche per svolgere degli studi all'estero. Io avevo proposto al Prof. Baccaredda di venire a lavorare presso di Lei a Brooklyn per specializzarsi nel campo degli alti polimeri. Il Prof. Baccaredda potrà lavorare nel campo che Lei gli consiglierà. Nel caso che Lei non avesse la possibilità di accoglierlo nel Suo Laboratorio La pregherei di indicargli presso quale altro Istituto o Laboratorio di Ricerche potrà trascorrere qualche mese.

Il Consiglio Nazionale delle Ricerche, al quale avevamo comunicato che il Prof. Baccaredda desidera lavorare presso di Lei, dovrebbe averle già scritto se la cosa è di Suo gradimento.

Le sarò molto grato se Lei vorrà comunicarmi qualcosa in proposito.

Ho letto con interesse quanto mi è stato comunicato sull'organizzazione Montell della quale Lei si interessa. Ho già scritto in proposito al Prof. Hohenstein che spero di incontrare presto in Europa.

Molti cordiali saluti

Suo dev.

COPY FOR: PROFESSOR NATTA

June 2nd, 1949

Dr. Mario Baccaredda
Institute Di Chimica Industriale
Piazza Leonardo de Vinci
Milano, Italy

Dear Dr. Baccaredda:

It is a pleasure for me to confirm to you that we shall be glad to have you work at our Institute in the field of Polymer Chemistry whenever you are sent over by the National Research foundation of Italy. We shall assist you in any way we can to get settled for you the period of your stay and are looking forward with great anticipation to the collaboration with you.

Please kindly let me know when you intend to arrive so that I can arrange for laboratory space and for the necessary equipment.

With kindest regards and best wishes, I am,

Sincerely yours,

H. M.

H. Mark

HM:FN

29 Agosto 1949

zm/

Prof. A.Mark
Amsterdam

Caro Prof.Mark,

ho ricevuto la Sua gentile lettera del 16 Agosto e non Le ho risposto subito a New York perohé sapevo che Lei era in partenza. Affido perciò la risposta al Prof.Nasini che dovrà vederLa ad Amsterdam.

Mi sono subito interessato in modo molto riservato del mercato del nero fumo in Italia presso dei miei amici della Soc. Pirelli che é il più grande consumatore italiano.

La Soc. Godfrey L.Cabot,pur essendo una delle più importanti produttrici di nero fumo,vende ora molto poco in Italia.

Ritengo che il fattore più importante per riuscire in tale campo sia quello di essere bene introdotti e di avere dei rapporti di amicizia negli ambienti interessati . A quanto mi é stato riferito é un campo in cui vi é molta concorrenza ed i prezzi e le qualità dei prodotti concorrenti sono praticamente gli stessi. Avrei perciò pensato di proporre al Mr.Brown un mio cugino ,Dr.Enrico Beati (Via Mario Pagano,54-Milano-) che é un buon chimico ,una persona molto educata di famiglia signorile, ed ha anche molti mezzi di famiglia. Già conosce diverse persone dell'ambiente Pirelli ed io stesso potrei metterlo a contatto con altre.

Ha 36 anni ,conosce già discretamente l'inglese e facilmente potrebbe completare le sue conoscenze di inglese e di competenza nel campo specifico se venisse per un certo tempo negli Stati Uniti. - Nel caso che il Dr. Brown volesse avere delle garanzie potrei darle io stesso ed eventualmente associarmi a mio cugino.

Io sarò in America tutto il mese di Settembre e forse anche in quello di ottobre .

La pregherei perciò di pregare il Dr.Brown di parlare a Milano con il Prof.Nasini ,che conosce molto bene il Dr.Beati e potrà presentarglielo.

Sono molto spiacente di non poterla vedere in Italia.

Molti cordiali saluti ed auguri

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
DR. H. MARK, DIRECTOR

July 17th, 1949

TRIANGLE 5-6920

Professor Dott. Ing. Giulio Natta
Direttore Dell' Instituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of July 8th. I am extremely glad that I shall have the chance to come to Italy this September and I am deeply grateful to you for having made such beautiful arrangements. They are perfectly agreeable to me and I shall do my best to satisfy my audiences in Italy with the scientific reports I will give to them.

It will probably be best for me to speak in a mixture of French and Italian; please kindly let me know the topics you want to have discussed so that I can prepare myself properly and can take all necessary slides and samples with me. I could spend September 20th to the 24th in Italy, and could easily give two lectures per day. When I have the pleasure of seeing Professor Centoler in Brussels in August we could fix up the detailed program.

I was very glad to hear that you have such an important job to do in South America and I congratulate you most cordially. I am very sorry that you will be away at the time of my stay in Italy but it is always possible that there may be a delay in South America and that you are still in Italy when I come.

Please extend my kindest regards and best wishes to Professor Centola, Professor Nasini and your wife, I am,

Very sincerely yours,

H. Mark

H. Mark f. n.

HM:fn

Milano, 8 Luglio 1949

Chiar.mo Prof. H.Mark
Institut of High Polymer Research
Polytechnic of Brooklyn
Livingston St. 72
Brooklyn New York

Caro Prof. Mark,

Sono molto lieto di poterLe confermare che abbiamo risolto il problema del rimborso delle spese del Suo viaggio in Italia nel prossimo settembre.

Io ne ho parlato con la Soc.Montecatini, la Pirelli, il Prof.Centola con le industrie tessili (Snia Viscosa, Rodiaceta e Nylon) che saranno liete di ricevere una Sua visita e di contribuire alle spese del viaggio.

La soluzione proposta è la seguente: Lei verrebbe invitata ufficialmente dalla "Stazione Sperimentale per la cellulosa, ecc." diretta dal Prof. Centola. La somma che tale stazione prevede di poter raccogliere con il contributo delle diverse Società potrà raggiungere le 130-150.000 lire.

Credo che tale somma possa largamente bastare per il viaggio e permanenza in Italia, dove il costo della vita è minore che in Belgio (2500 Franchi belgi corrispondono a 35.000 lire al cambio, ma in pratica 30.000 lire corrispondono ad un potere di acquisto di oltre 2500 Fr.Belgi).

Il Prof.Centola il giorno 25 agosto andrà a Bruxelles, Lei potrà vederlo e prendere accordi precisi con lui.

Io non sono sicuro di poter essere in Italia alla fine di settembre perchè ho dovuto rimandare alla fine di agosto il mio viaggio nel Sud America (Argentina e Brasile) e temo di non riuscire ad essere di ritorno in tempo.

Ciò mi spiacerebbe moltissimo perchè avrei avuto immenso piacere di vederLa a Milano ed a Champoluc. Mia moglie, se non verrà anche lei in Argentina, potrà accompagnarLa ed ospitarLa a Champoluc insieme a Suo figlio. Io dovrei andare in Argentina per la messa in marcia di una fabbrica di sintesi di metanolo secondo il mio procedimento. Siccome i montaggi nel Sud America procedono con grande lentezza spero di dover rimandare ancora la mia partenza e di vederLa qui.

Ma anche se non ci sarò io, Lei può essere certo che il Prof.Nasini ed il Prof. Centola Lo accoglieranno con entusiasmo e cercheranno di venire incontro ad ogni Suo desiderio.

La prego di porgere i miei saluti al Prof. Hohenstein, a Lei molte cordialità.

P.S. Tra qualche giorno, quando il dr.Morandi, presidente della Soc. Lombarda di Chimica attualmente assente ritornerà a Milano, Le comunicheremo quale argomento verrà scelto per la Sua conferenza tra quelli da Lei proposti.

BERKELEY HOTEL LONDON

TELEPHONE. REGENT 8282 : TELEGRAMS. SILENTIUM PICCY LONDON

4/2/49

Dear Prof. Natta:

As I wrote you before I intend to come to Milano on this trip. My travel schedule is now arranged in such a way that I shall arrive in Milano on Wednesday April 27.

Unfortunately I have a long meeting scheduled but I certainly shall ring you up and I hope that we shall be able to spend

an hour or two together.

Will you kindly convey my respects and best regards to Mrs. Natta.

Looking forward to seeing you soon

I remain sincerely yours

W Wittgenstein

Milano, 15 Giugno 1949

Mr. W.P. Hohenstein
Professor of Polymer Chemistry
Politechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 2, New York

Caro Professore Hohenstein,

La ringrazio vivamente per la Sua gentile lettera del 7 Giugno e per la premura che Ella gentilmente si è preso per la correzione della lettera all' Editore di "Polymer Science" .

Le sarò grato se Lei vorrà correggere le bozze di stampa. Non occorre che Lei ce le rimandi qui.

Le ritorno il manoscritto da Lei gentilmente corretto al quale ho fatto solo ulteriori piccole correzioni.

Ho trasmesso all'Ing. Giustiniani la Sua lettera. Da alcuni giorni Giustiniani è via da Milano e quindi non ho potuto ancora parlargli, ma in fine settimana sarà di ritorno e spero di vederlo prima della mia partenza per Parigi dove andrò la settimana prossima per partecipare ad un Congresso sulla chimica del petrolio. L'attuale indirizzo dell'Ing. Giustiniani è:

Ing. Piero Giustiniani - Amministratore Delegato della Soc. Montecatini - Milano - via Albania 18

La Sua proposta di cominciare la polimerizzazione con stirolo importato dall'America è certamente molto interessante.

Il nostro impianto di Ferrara di stirolo monomero è ancora fermo e non è stato ancora deciso se verrà trasportato in altra località presso un impianto che produca etilene da gas di coheria o di cracking, oppure se verrà messo in marcia a Ferrara trasportando l'etilene a Ferrara. Certamente una decisione verrà presa entro quest'anno. E' probabile che gli impianti di Ferrara della Soc. SAIGS vengano assorbiti dalla Montecatini , e delle trattative sono in corso.

Le rinnovo i più vivi ringraziamenti e La prego di gradire i miei migliori e più cordiali saluti

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

June 7, 1949

Prof. Ing. Giulio Natta
Ordinario di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci, Milano, Italy

Dear Professor Natta:

Enclosed please find a letter to Ing. Giustiniani. I would be very grateful if you would be good enough to deliver it to him, since I do not know exactly whether his address now is with the Terni or with the Montecatini.

I hope it does not inconvenience you too much to send my letter on to Ing. Giustiniani. Also enclosed is a copy of it for your own files.

With best personal regards to Mrs. Natta and yourself, I remain

Sincerely,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec
Encs. (2)

P. S. Today I received your letter of June 1st. Accordingly, I have arranged that the corrections which you suggest, namely, the intrinsic viscosity of the polythene to be changed from 8 to .8 and the metal methacrylate to be changed from 1.5 to 15, will be made in the page proofs of your Letter to the Editor. As soon as I receive the page proofs I shall either send them to you, or if you wish I shall correct them myself in order to expedite the final publishing date. If you want me to send you the page proofs, I would appreciate it if you would write me a short letter asking me to forward them to you.

Enclosed please find copy of your corrected manuscript. I hope that you agree with the changes in wording that I have made.

WPH

Milano, 1 giugno 1949

Mr. W.P. Hohenstein
Professor of Polymer Chemistry
Polytechnic Institute of Brooklyn
99 Livinston Street
BROOKLYN 2, NEW YORK

Caro Prof. Hehenstein,

La ringrazio molto per la Sua cortese lettera del 17 maggio e per quanto Ella ha fatto per la correzione e la presentazione della lettera al Journal Polymer Science. Se fosse possibile gradirei avere le bozze di stampa per la correzione. Qualora ciò non fosse invece possibile La pregherei di voler gentilmente correggere due errori che sono nel manoscritto:

3° riga: sotto "Polyethylene" correggere $_{sp}/c = 8$
con $_{sp}/c = 0.8$

Ultima riga: sotto "Methylpolymetacrilate" correggere $_{sp}/c = 1,5$
con $_{sp}/c = 15$

Sono anche io molto lieto che Baccaredda possa venire presso di Loro per continuare le ricerche sugli alti polimeri, a mezzo della determinazione della velocità ultrasonora. Appena il Consiglio delle Ricerche avrà stabilito la decorrenza della borsa di studio Baccaredda non mancherà di informarLa per stabilire la data del suo arrivo.

La prego di gradire, assieme alla Sua gentile Signora, anche da parte di mia moglie, i più cordiali saluti

Milano 6 aprile 1949

Egr.Prof. Dr. Roenstein
Berkeley Hotel
London

Caro Prof. Roenstein,

Avrò molto piacere di incontrarla a Milano il 27 aprile. La prego di telefonarmi appena lei arriva, perchè avrei molto piacere di trovarla a colazione od [illegible] di sera.

[illegible] di [illegible] di [illegible] Hand di Kaufmann [illegible] vista o un pezzo fa a Milano.

Noi stiamo ora studiando il problema di trasportare la [illegible] di attrezzature, che [illegible], [illegible] difficile deve si poter disporre di [illegible].

Cordiali saluti

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

February 17, 1949

Prof. Ing. Giulio Natta
Ordinario di Chimica Industriale
Politechnico di Milano
Piazza Leonardo da Vinci, Milano, Italy

Dear Professor Natta:

Thank you for your kind letter of February 4 and for your description of the present polystyrene situation in Italy.

Needless to say I am delighted about the possibility of seeing you either in Switzerland or in Italy. I do not know the exact date of my arrival in Switzerland but believe it to be round April 24th. I hope that this will be prior to your departure for South America.

As soon as I know the exact details of my travel schedule, I will write you well in advance of our possible meeting date so that you can arrange accordingly. If you would like to reach me by letter, my address will be:

Up to March 26 - Polytechnic Institute in Brooklyn.

From April 1 - 9 - Hotel Berkley, Berkley Street, London.

From April 9 -16 - Petrocarbon Limited, Twining Road, Trafford Park, Manchester, England. After April 16th I will be travelling through Holland, France and Spain - - shall not stay long enough in one place to be reached by letter.

Looking forward with great pleasure to our meeting, I remain, with kindest personal regards,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

copia per il sig.Prof.Natta

Rome, March 18 th , 1949

Dear Mr.Rohenstein,

Thank you for your letter of March 3, which gave me the pleasant news, that you will be at Milan on April the 28 th.

I shall be very pleased to meet you at Milan on the date indicated by you. You can ask for me after your arrival at the offices of "Terni" , Via Bigli 21, telephone 70.[illegible]7.

Looking forward to meeting you soon I send you my most cordial regards.

Yours sincerely

(Dr;ing. Piero Giustiniani)

Prof.H.F.ROHENSTEIN
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2, New - York

Milano, 10.6.1949

Dear Prof. V.D. Frechette
Professor of
Ceramic Technology - University
ALFRED, N.Y.

Dear Professor,

I thank you very much for your Christmas card which did not come having probably a awrong adress Prof. Piontelli has given to me the letter you sent to his adress.

I hav'nt antwered before now having been abroad for a longtime I am sorry but I have'nt any more copy in the french translation of my manuscript presentend to the Colloquium on reactions in the solid state.

My conference has been printed in the Bulletin de la Société Chimique de France (N° Mars-Avril 1949) and I hope you will find it there.

In case it is difficult for you to find it I shall send you a photographic copy.

Also Sor me it was a great pleasure to be associated with you in Paris and I hope that we may meet again.

With best regards.

Yours very truly

The New York State College of Ceramics
At Alfred University
ALFRED, N.Y.

March 22, 1949

Professor Natta
c/o Professor Piontelli
Laboratori Di Elettrochimica Di
Chimica Fisica E Metallurgica
E Di Metallurgia
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milan, Italy

Dear Professor Natta:

I have just been surprised at the return of my Christmas card to you, which evidently was improperly addressed. So I am sending this in care of Professor Piontelli who will undoubtedly know where to reach you.

In going through the notes of the Colloquium on Reactions in the Solid State which we attended in Paris last fall I am disturbed that I have no record of your contribution. Because of my interest in your field I hope that you may have a copy of your paper that you may be able to spare me.

It was a great pleasure to be associated with you in Paris and I hope that we may meet again.

With best regards.

Yours very truly,

V. D. Frechette

V. D. Frechette
Professor of Ceramic Technology

VDF:mem

11 marzo 1949

Superpressure Division
American Instrument Co.
8010 Georgia Avenue
Silver Spring, Maryland
Stati Uniti d'America

I should be very thankful if you will send me a copy of your catalog NP 406, with all the prices.

I am very interested in high pressure reactions and apparatus in laboratory and pilot plant scale, and I hope to buy a little circulation plant whit the E.R.P. help.

Your very truly

(Ing. N.Agliardi)

hg

January 20, 1949

depending on color and quantity.

So you see, therefore, that there is a large margin of profit possible, which certainly will even be greater under circumstances and prices in Italy.

It would be most interesting if you could contact some responsible groups in Italy, who would be able to undertake the manufacturing of polystyrene from a financial as well as a technical point of view. I hope that when we meet either in Italy or Switzerland, the plan will have progressed to such a stage that we can go into some more details. All these details are fully available to me as I have been developing the process of suspension polymerization of styrene to its technical stage with one of the largest polystyrene producers in the United States. Likewise, I am now building a factory in England which operates on the same process. The rate of production for the American plant is 25,000 tons per year while the English plant will produce 8 to 10,000 tons per year.

I hope to hear from you in the near future and am looking forward with great interest to your reaction to this suggestion.

With kindest personal regards to Mrs. Natta and yourself, I remain

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

USA 1950

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

January 25th, 1950

Dear Sir:

I would like to take this opportunity to approach you with the following inquiry.

We are now investigating the status of the Polystyrene samples which were sent to you several months ago. We would like to know whether these samples were received by you and would appreciate hearing from you as soon as possible.

Looking forward to hearing from you, I am,

Very sincerely yours,

H. Mark

H. Mark f.m.

HM:fn

23 Dicembre 1950

Gentil Signora
Elizabeth Fisher
Roma - Via Madonna del Riposo 28/16a

Mr.

Gentile Signora,

Non siamo in grado di inviarle il sunto della conferenza sul furfurolo tenuta dal Prof. Natta al Congresso Internazionale di Chimica, essendo il Prof. Natta assente da Milano.

Se Lei crede, possiamo farle avere una copia del lavoro. Altrimenti il Prof. Natta provvederà ad inviarLe il sunto richiesto appena di ritorno.

Distinti saluti

McGRAW-HILL World News

Rome Bureau

Via Madonna del Riposo 28/16a,
ROME

December 18th 1950

Professor G. Natta,
Instituto Politecnico,
Piazza Leonardo da Vinci,
MILANO

Dear Professor Natta,

I am representing the trade and technical publishers of New York, McGraw-Hill, in Italy. Please excuse my writing in English.

The Editor of one of our magazines, CHEMICAL INDUSTRIES, has sent me the following paragraph from a United States publication:

> "In a paper to the International Chemical Congress held in Milan in September, G. Natta and E. Beati described a new process for furfural production which had been developed to the pilot-plant scale in Italy. The process is one for the continuous extraction of pentosan-containing materials by means of hydrochloric acid. Yields corresponding to 80% of the theoretical were claimed."

If it is possible, Professor, would you be kind enough to let me have a brief summary of the paper described; also is this being used, or about to be used, commercially; if so, where?

I would be very pleased to have your reply--in Italian. I have no spare copy of Chemical Industries on hand at present, but am forwarding you a copy of our Chemical Engineering, so that you can see the quality of our magazines. Chemical Industries is a weekly; Chemical Engineering a monthly.

Yours sincerely,

Elizabeth Fisher

(Elizabeth Fisher)

McGRAW-HILL World News

Rome Bureau

Via Madonna del Riposo 28/1-a,
Rome,
December 18 1950

Copy

Professor G. Natta,
Instituto Politecnico,
Piazza Leonardo da Vinci,
Milano

Dear Professor Natta,

I am representing the trade and technical publishers of New York, Mc-Graw-Hill, in Italy. Please excuse my writing in English.

The Editor of one of our magazines, CHEMICAL INDUSTRIES, has sent me the following paragraph from a United States publication:

"In a paper to the International Chemical Congress held in Milan in September, G. Natta and S. Beati described a new process for furfural production which had been developed to the pilot-plant scale in Italy. The process is one for the continuous extraction of pentosan-containing materials by means of hydrochloric acid. Yields corresponding to 80% of the theoretical were claimed."

If it is possible, Professor, would you be kind enough to let me have a brief summary of the paper described; also is this being used, or about to be used, commercially; if so, where?

I would be very pleased to have your reply--in Italian. I have no spare copy of Chemical Industries on hand at present, but am forwarding you a copy of our Chemical Engineering, so that you can see the quality of our magazines. Chemical Industries is a weekly; Chemical Engineering a monthly.

Yours sincerely,

ELIZABETH FISHER

Milano, 18 marzo 1950

GN/mr

Egr.Prof.H.Mark
Polytechnic Institute of Brooklyn
99 Livington Street
Brooklyn ,2, New York

Caro Prof. Mark,

In risposta alla Sua lettera del 25 gennaio in cui richiedeva i risultati dell'esame del campione di polistirolo inviatoci, La informo che noi abbiamo effettuato delle misure di velocità di propagazione degli ultrasuoni.

Le misure sono state effettuate in soluzione in benzolo al 5 % in peso. Nell'ipotesi che le soluzioni si comportino come soluzioni ideali rispetto alla densità risultano per estrapolazione i seguenti valori per il polistirolo soprafuso a 20°:

Densità: 1.1043
Velocità di propagazione (4 MHz) 1590 m sec.$^{-1}$

La velocità di propagazione risulta più bassa di quella da noi osservata con polistiroli a peso molecolare più basso, mentre in base alla maggiore densità dovrebbe risultare più alta.

Gradiremmo perciò conoscere i risultati delle determinazioni di altre proprietà fisiche fatte sullo stesso campione. Nel caso si potesse disporre di maggiori quantitativi dello stesso campione potremmo fare misure più precise.

Gradiremmo anche possibilmente avere altri campioni di polistiroli a peso molecolare tra 10.000 e 500.000 per confrontarli.

Voglia cordiali saluti

P.S. Il rinvenimento della recente pubblicazione Pestel dalla Verlag in Europa dal Dr. S. Bassochin del Suo Istituto. Certamente avrò piacere di conoscerlo e gli salverò [illegible] si potrà concretare la possibilità di [illegible].

PETROCARBON LIMITED

TELEPHONE:
TRAFFORD PARK
2631

TELEGRAMS:
REFINERY,
ECCLES, MANCHESTER

RESEARCH LABORATORIES:
TWINING ROAD, TRAFFORD PARK, MANCHESTER, 17

Our Ref: WPH/BW.

5th. July, 1950.

Professor Giulio Natta,
Politecnico di Milano,
Piazza Leonardo da Vinci, 32,
MILAN, Italy.

Dear Professor Natta,

Referring to my last letter which I wrote to you from New York, I would like to inform you that I most probably shall be able to come for a very short visit to Milano on or around August 10th. I hope that by this time you will be in Milano.

Unfortunately I do not know as yet my exact schedule, and therefore I will have to write you again - probably from Paris - in order to give you the exact date of my arrival.

Could you please write me a short note to the Hotel Meurice, Rue Rivoli, Paris, informing me whether you expect to be in Milano at the time period indicated above? I hope to have the pleasure of seeing Mrs. Natta and yourself there soon.

With best personal regards,

Sincerely yours,

W. P. HOHENSTEIN,
Professor of Chemistry.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
DR. H. MARK, DIRECTOR

March 16th, 1950

TRIANGLE 5-6920

Professor Dott. Ing. Giulio Natta
Direttore Dell' Instituto de Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I have recently learned that Professor Raymond M. Fuoss of Yale University, is planning to be on sabbatical leave from Yale during the second semester of next year.

He has accepted an invitation from Dr. E. Bergmann to spend some time at the Weizmann Institute and hopes to be able to arrange some visits to other laboratories where Polymer work is being done. He probably will leave for Palestine late in January and return during July.

As you certainly know, he has been doing some extremely interesting work on polyelectrolytes and could present a seminar lecture summarizing this research. If you would like to have him visit your laboratory, I am sure that he would accept an invitation to stop en route. As Professor Fuoss is travelling on his own expenses, he would greatly appreciate some contribution to his travel expenses [illegible]ld be made in the currency of the country in which he is

[illegible] and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fn

P.S. Lectures can be given in Italian

Milano, 27 marzo 1950

GN/mr

Egr.Prof. Mark
Institut of High Polymer Research
Polytechnic of Brooklyn
Livington Street 72
Brooklyn N.Y.

Caro Prof. Mark,

Ho letto con molto interesse la Sua lettera all'editore del "Polimer Science" dell'agosto 1949 sulla solubilità del politilene in xilene.

Noi stiamo ora esaminando la velocità ultrasonora in diversi campioni di polietileni. Le saremmo molto grati se Lei si potesse inviare dei campioni dei polietileni da Lei esaminati. Ci basterebbero 10-15 g per campione che potremmo eventualmente restituire dopo fatte le misure.

Mille ringraziamenti anticipati e cordiali saluti

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

February 27, 1950

Dr. Guilio Natta
Direttore dell'Instituto di Chimica Industriale
Del R. Politecnico di Milano
Piazzo Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

Please permit me to take this opportunity to inform you of the following situation.

In about two weeks, Dr. R. Mesrobian of our Institute of Polymer Research is going to Groningen University, Holland, for one year on a Professorship Exchange with Dr. J.J. Hermans. Hermans will then be coming to Brooklyn for a year.

Since I know that you are always interested to hear of the arrival of polymer specialists in Europe, I wanted to call the above situation to your attention. You will find that Dr. Mesrobian has had much contact with current problems in the field of high polymers, both from the academic as well as the industrial point of view, and is most capable of conducting interesting talks on various topics.

I have informed Mesrobian of this letter to you and he intends to get in touch with you shortly after arriving in Holland. I would greatly appreciate any efforts you can make to arrange for Dr. Mesrobian to visit your laboratory.

Please accept my best wishes to you and your colleagues.

With kindest regards,
Very sincerely yours,

H. Mark

H. Mark

HM:c

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
DR. H. MARK, DIRECTOR

April 4th, 1950

TRIANGLE 5-6920

Professor Dott. Ing. Giulio Natta
Ordinario di Chimica Industriale
Politecnico Di Milano
Piazza Leonardo Da vinci 32
Milano, Italy

Dear Professor Natta:

Unfortunately, there are no samples left but I shall be very glad to try to get more of them so that I can send you a few grams of each of the fractions.

I was very glad to hear from you again and I hope that I shall see you either here or in Italy.

With kindest regards and best wishes, I am,

Very sincerely yours,

H. Mark

HM:FN

H. Mark

Milano - luglio 1950

Caro Prof. Mark,

Desidero innanzitutto ringraziarLa per l'ospitalità presso il Suo Laboratorio che Lei ha concesso al mio collaboratore Prof. Baccaredda e sarò molto lieto se Baccaredda potrà impratichirsi nei diversi metodi di ricerca sugli alti polimeri.

E' in programma ora l'installazione presso il Politecnico di Milano di un Centro di studi per gli alti polimeri, al quale contribuiranno le principali industrie chimiche italiane. Gradirei perciò che Baccaredda potesse eventualmente visitare dei laboratori di prove anche presso l'industria e Le sarei grato se Lei potesse indirizzarlo e presentarlo per delle visite a tali laboratori.

Mia moglie ed io ricordiamo la Sua vecchia promessa di venire in Italia per fare un'ascensione sul Matterhoren e l'aspettiamo.

Molti cordiali saluti

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
DR. H. MARK, DIRECTOR

TRIANGLE 5-6920

April 5, 1950

Professor Giulio Natta
Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Carissimo Professor Natta:

Many thanks for your kind letter of March 13th with the very interesting results on the polystyrene fraction which I sent you some time ago. I am just now compiling the results of all other measurements and shall send them to all laboratories that have cooperated in this matter.

In the meantime, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark /gs

H. Mark

HM:JG

INTERSCIENCE PUBLISHERS, INC.

INTERSCIENCE PUBLISHERS, Inc.
250 FIFTH AVENUE
NEW YORK 1, N. Y.

~~215 FOURTH AVENUE - NEW YORK 3, N. Y.~~
TELEPHONE: OREGON 7-4141
CABLE ADDRESS: INSCIENCE NEWYORK

MAURITS DEKKER, Phil. Docts., President • *ERIC S. PROSKAUER, Ph. D., Exec. Vice-President and Treasurer*

July 29, 1950

Dr. G. Natta
Director Dell' Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

You will have seen that the time between the submitting of a manuscript to the Journal of Polymer Science and the appearance of this article has increased substantially during recent months. The backlog of manuscripts has become very large.

We, the Publishers, with the full consent of the Editors, plan to remedy this situation in the following way: We will publish the Journal beginning with January, 1951, on a monthly basis. This will be a total of 12 issues, totaling 1600 pages. We will divide this into 2 volumes of 6 issues, each volume then comprising 800 pages. In this way, we will double the amount of available space and will, therefore, be in a position to shorten considerably the period in which a submitted manuscript will appear.

We hope you will like this arrangement.

Sincerely yours,

INTERSCIENCE PUBLISHERS, INC.

E. S. Proskauer

E. S. Proskauer

ESP:DEB

HÔTEL MEURICE
228, Rue de Rivoli
PARIS
MEURISOTEL-PARIS
OPÉRA 32-40

Dec. 3, 1950

Dear Prof. Natta.

I am very glad to inform you that I shall arrive in Milano on Monday, Dec. 11 and shall stay there for one or two days.

As usual I shall stay at the Hotel Continentale and I hope that I shall have the pleasure of seeing you. I'll call you as soon as I arrive.

Mrs. Hohenstein and I are looking forward very much to seeing Mrs. Natta and yourself.

With kindest regards

W. P. Hohenstein

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

June 16, 1950

Prof. Ing. Giulio Natta
Politecnico Di Milano
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of June 1st and also for the letter which you had Professor Baccaredda write me on June 12. From these letters I take it, that for the time being further discussions with the Montecatini technical staff seem to be useless, as they maintain that the quality of polystyrene produced by their mass polymerization as well as the production costs are adequate. Maybe the subject will come up later on, when they want to increase their production capacity substantially.

I received the copies of your patent application as well as your correspondence with the Patent Examiner. Unfortunately, your letter arrived about three weeks after I had gone to Washington to discuss some of my own patent applications. At present and during the last few days before my imminent departure for Europe, my time is so completely taken up, that I cannot spare even one day to go down to Washington. I regret this very much but hope that when I come back to New York I shall then be able to go to Washington and discuss also your case. Meanwhile, I have sent the copies of the patent application and of the correspondence to Ing. Allioni as you have requested.

This time my schedule in Europe is not a fixed one because I do not know how long I will have to stay in France. There is a possibility though that I shall be able to come to Milano sometime during the first two weeks of August. Will you then be in town? If so, I would be very glad to discuss with you and have your advice on another matter connected with plastic production in Italy. I do sincerely hope that we shall have occasion to meet, but if it is impossible this time, then I expect to be in Europe again at the end of October prior to my trip to India.

With kindest regards to Mrs. Natta and yourself,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

(continued)

June 16, 1950

P. S. For your reply, please address your letter to Petrocarbon Limited, Twining Road, Trafford Park, Manchester, England, up to July 5th and after that to the Hotel Maurice, Rue Rivoli, Paris, until August 1st.

10 Luglio 1950

GN/mr

Mr. Prof. W.H. Hohenstein
Hotel Maurice
Rue Rivoli
P A R I S

Caro Prof. Hohenstein,

Ricevo la Sua lettera del 5 c.m.

Verso il 10 di agosto prevedo di essere in vacanza a Champoluc in Val d'Aosta, dove abbiamo una villa a 1600 m. di altezza ai piedi del Monte Rosa.

Se Lei ha piacere di passare qualche giorno al fresco in una pittoresca località delle Alpi, sarò lieto di averLa mio ospite nella villa di Champoluc. Potrò venirLa a prendere in macchina a Castel Verres dove arriva la ferrovia della Val d'Aosta, oppure a Torino od a Milano.

Nel periodo 10-20 Agosto Milano è completamente vuoto perchè tutti sono in vacanza.

L'Ing. Saccenti, Direttore del Settore Resine della Montecatini, con il quale ho discusso a lungo il problema del polistirolo prodotto con il Suo processo, gradirebbe avere un campione (possibilmente di circa 1 Kg) di polistirolo prodotto in sospensione per confrontarlo con il prodotto attuale della Montecatini. Potrebbe Lei portarmelo o farmelo inviare dall'America?

Come già Le ho accennato è possibile che in un secondo tempo la Montecatini si decida di installare una piccola unità di polimerizzazione in sospensione.

Spero di rivederLa presto in Italia.

Cordiali saluti

(Prof.G.Natta)

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGTON STREET
BROOKLYN 2, NEW YORK

C O P I A

Department of Chemistry

May 23, 1950

Dear Professor Natta:

Thank you for your kind letter of May 12.

Somehow I was surprised about its contents because of the resul of your discussions with the technical staff of the Montecatini about the respective merits of the bulk polymerization method versus the sus sion polymerization method.

I regret to say that the judgment and the opinions of the Montecati technical men, are quite contrary to those of the majority of industri chemists and chemical engineers in America, England and France. I assu you that before the suspension polymerization process was worked out i America, about a year and a half of intensive research was spent in co paring the advantages and disadvantages of the two processes.

We had here at that time a complete description of the American bul polymerization process as industrially used by a large company in this Country, and we also had all the technical information on the German bulk polymerization process. In our research work, a bulk polymerizati pilot plant was built in conformity with the German model, and all pos sible improvements were tried. Still it was found that the suspension polymerization process was superior in many respects to the bulk polym rization method.

The main advantages of the suspension process are with respect to c pital outlay, maintenance, operating costs, standardization and qualit of the final product, and flexibility of the process allowing the manu facture of different grades and types.

A similar study was undertaken by the English chemists and chemic engineers before they also adopted the suspension polymerization proce for for their large scale operation; and finally, I am glad to tell yo that after studying the problem extensively from all aspects, one of t largest French chemical firms has just signed a contract for the const tion of a polystyrene plant, utilizing the suspension polymerization method.

These facts, you will agree, are quite in contradiction to the opinions of the Montecatini technical staff. I can only explain their judgment by assuming that they are not fully cognizant of the economica analysis and the technical detail of the suspension polymerization process.

It is of course hard to describe the technical details of the suspe sion polymerization process by correspondance, but I shall quote you a few figures which will give you a certain picture of its advantages con pared to the bulk polymerization method.

On the American market there are mainly three different brands of polystyrene, one of which is produced by bulk polymerization, while the other two are made by using the polymerization in a heterogeneous mediu The analytical tests have shown that there is essentially no differenc between these three products, and that they all comply fully with the rigid American specifications. The product obtained by pearl polymeriza tion shows a more homogeneous molecular distribution and has a narrowe distribuction curve of molecular sizes, which is a definite advantage over the other two brands. Let me add, that according to our rigid tes the German polystyrene does not come up to American specifications and would be rejected on our market by the majority of the molders. We have not as yet tested the Montecatini polystyrene, but shall be glad to do so if you will be good enough to send me a sample.

It is hard to compare costs because they depend so much upon variables, such as, the size and location of the plant, cost of utilities a labor, tax structure and amortization, etc. etc. Let me say though, tha it is possible to perform the suspension polymerization in an American factory, of a yearly capacity of 2,000 tons, for a cost of 3.4 U.S. c per pound, taking into account a depreciation of 12, 1/2 % on process equipment and 3 % on buildings. The above cost figure also includes direct and indirect labor, supervision, maintenance, taxes and insurance, overhead, 6 % on working capital, and utilities. Under similar circums ces the production cost of polystyrene manufactured by the bulk polyme zation method, would be 15-18 % higher, mainly due to increased maintenance and amortization costs.

Finally, it is known that the initial capital outlay for a bulk polymerization plant, would run about 25-30 % above that of a suspension polymerization plant, of a similar size.

I hope that these figures will be valuable to you in your further discussions with the Montecatini technical staff. Somehow it appears to me that they may be slightly prejudices in favor of their existing bulk polymerization process, which is only natural, because they are familiar with the operation. It would be too bad though if the Montecatini in building a new factory, would be guided by personal impressions rather than by cold facts.

I am very glad to hear that Dr.Baccaredda has now arranged to come (but at the same time I am very sorry that I shall already be out of the Country by the time he arrives. My sailing date has been fixed now for 23rd and I shall return late in August, at which time I trust that I wil see Dr.Baccaredda here. Meanwhile, I have talked over this matter with Professor Mark and he suggested that dr.Baccaredda contact him directly, whereupon he will discuss with him further arrangements and working plar Due to my imminent trip to India and the fact that I shall be out of the United States for nearly a year, I have curtailed my research and labora tory activities considerably, most of my students having finished off their theses, and during my year of absence I will have practically nob working for me. Thus it will be better if Dr.Baccaredda works directly with Dr. Mark.

As to Dr.Baccaredda's probable topic of research, I feel that whil your and his work on ultrasonics is highly interesting and promising, y and he may wish that he does something here, which he would not likely in your laboratory. I refer particulary to the inventigation of polymeri electrolytes, a field of research which has attracted considerable interest during the recent few years. May I therefore suggest that he doesn' bring over any of his apparatus, but that he works here with our equipm on polyelectrolytes, whereby he will have occasion to use dynamic osmom ters, light scattering, flow birefringency, ultra contrifuge, etc. etc.

My travel plans do not include, this time, a visit to Milano since I do not see any purpose in further discussions with the Montecatini peop unless they show renewed interest in the project of the polystyrene factory. Of course, I shall immediately change my plans if you indicate to me that such interest exists and that I should come down to talk to Ing.Giustiniani and his technical staff.

I had the honor of being elected to the membership of the Hospitalit Committee which prepares for the International Congress in New York in 1951. In this capacity I shall be able to make various arrangements fo my European friends, and let me assure you that I consider it a privile to count you among them. Therefore, if there is anything that you would like me to do in connection with your forthcoming trip to New York, ple let me know.

With kindest personal regards to Mrs. Natta and yourself, I remain

Sincerely yours,

firmato: W.Peter Hohenstein
Professor of Polymer Chemistry

HÔTEL MEURICE
Rue de Rivoli
PARIS
Télégr.: MEURISOTEL III PARIS
Téléph.: OPÉRA 32-40

July 26, 1950.

My dear Prof. Natta.

Thank you for your letter of July 10 and your very kind invitation to spend a few days at your Villa in Campalto. I assure you I would do so with the utmost pleasure. Unfortunately I have to return home as speedily as possible because I have to prepare for my trip to India and you know how many things

there have to be attended to before an absence of 6 months. I regret therefore very much that I shall not have the pleasure of seeing Mrs. Natta and yourself this time, but I hope to be able to do so in October, when I return to Europe on my trip to India.

I shall be glad to arrange to send 2 lbs of Polystyrene to Ing. Saccenti. I'll send the sample from England where the plant will be in full operation in October, but where a large pilot plant is now already producing polystyrene of standard quality.

Will you please convey my respects and best regards to Mrs. Natta.

With kindest personal regards

sincerely yours W P Hohenstein

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

May 23, 1950

Prof. Ing. Giulio Natta
Politecnico Di Milano
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you for your kind letter of May 12.

Somehow I was surprised about its contents because of the result of your discussions with the technical staff of the Montecatini about the respective merits of the bulk polymerization method versus the suspension polymerization method.

I regret to say that the judgment and the opinions of the Montecatini technical men, are quite contrary to those of the majority of industrial chemists and chemical engineers in America, England and France. I assure you that before the suspension polymerization process was worked out in America, about a year and a half of intensive research was spent in comparing the advantages and disadvantages of the two processes.

We had here at that time a complete description of the American bulk polymerization process as industrially used by a large company in this Country, and we also had all the technical information on the German bulk polymerization process. In our research work, a bulk polymerization pilot plant was built in conformity with the German model, and all possible improvements were tried. Still it was found that the suspension polymerization process was superior in many respects to the bulk polymerization method.

The main advantages of the suspension process are with respect to capital outlay, maintenance, operating costs, standardization and quality of the final product, and flexibility of the process allowing the manufacture of different grades and types.

A similar study was undertaken by the English chemists and chemical engineers before they also adopted the suspension polymerization process for their large scale operation; and finally, I am glad to tell you, that after studying the problem extensively from all aspects, one of the largest French chemical firms has just signed a contract for the construction of a polystyrene plant, utilizing the suspension polymerization method.

May 23, 1950

These facts, you will agree, are quite in contradiction to the opinions of the Montecatini technical staff. I can only explain their judgment by assuming that they are not fully cognizant of the economical analysis and the technical detail of the suspension polymerization process.

It is of course hard to describe the technical details of the suspension polymerization process by correspondence, but I shall quote you a few figures which will give you a certain picture of its advantages compared to the bulk polymerization method.

On the American market there are mainly three different brands of polystyrene, one of which is produced by bulk polymerization, while the other two are made by using the polymerization in a heterogeneous medium. The analytical tests have shown that there is essentially no difference between these three products, and that they all comply fully with the rigid American specifications. The product obtained by pearl polymerization shows a more homogeneous molecular distribution and has a narrower distribution curve of molecular sizes, which is a definite advantage over the other two brands. Let me add, that according to our rigid tests, the German polystyrene does not come up to American specifications and would be rejected on our market by the majority of the molders. We have not as yet tested the Montecatini polystyrene, but shall be glad to do so if you will be good enough to send me a sample.

It is hard to compare costs because they depend so much upon variables, such as, the size and location of the plant, cost of utilities and labor, tax structure and amortization, etc., etc. Let me say though, that it is possible to perform the suspension polymerization in an American factory, of a yearly capacity of 2,000 tons, for a cost of 3.4 U.S. cents per pound, taking into account a depreciation of 12½% on process equipment and 3% on buildings. The above cost figure also includes direct and indirect labor, supervision, maintenance, taxes and insurance, overhead, 6% on working capital, and utilities. Under similar circumstances the production cost of polystyrene manufactured by the bulk polymerization method, would be 15-18% higher, mainly due to increased maintenance and amortization costs.

Finally, it is known that the initial capital outlay for a bulk polymerization plant, would run about 25-30% above

May 23, 1950

that of a suspension polymerization plant, of a similar size.

I hope that these figures will be valuable to you in your further discussions with the Montecatini technical staff. Somehow it appears to me that they may be slightly prejudiced in favor of their existing bulk polymerization process, which is only natural, because they are familiar with the operations. It would be too bad though if the Montecatini in building a new factory, would be guided by personal impressions rather than by cold facts.

I am very glad to hear that Dr. Baccareda has now arranged to come over, but at the same time I am very sorry that I shall already be out of the Country by the time he arrives. My sailing date has been fixed now for June 23rd and I shall return late in August, at which time I trust that I will see Dr. Baccareda here. Meanwhile, I have talked over this matter with Professor Mark and he suggested that Dr. Baccareda contact him directly, whereupon he will discuss with him further arrangements and working plans. Due to my imminent trip to India and the fact that I shall be out of the United States for nearly a year, I have curtailed my research and laboratory activities considerably, most of my students having finished off their theses, and during my year of absence I will have practically nobody working for me. Thus it will be better if Dr. Baccareda works directly with Dr. Mark.

As to Dr. Baccareda's probable topic of research, I feel that while your and his work on ultrasonics is highly interesting and promising, you and he may wish that he does something here, which he would not likely do in your laboratory. I refer particularly to the investigation of polymeric-electrolytes, a field of research which has attracted considerable interest during the recent few years. May I therefore suggest that he doesn't bring over any of his apparatus, but that he works here with our equipment on polyelectrolytes, whereby he will have occasion to use dynamic osmometers, light scattering, flow birefringency, ultra centrifuge, etc., etc.

My travel plans do not include, this time, a visit to Milano since I do not see any purpose in further discussions with the Montecatini people unless they show renewed interest in the project of the polystyrene factory. Of course, I shall

May 23, 1950

immediately change my plans if you indicate to me that such interest exists and that I should come down to talk to Ing. Guistiniani and his technical staff.

I had the honor of being elected to the membership of the Hospitality Committee which prepares for the International Congress in New York in 1951. In this capacity I shall be able to make various arrangements for my European friends, and let me assure you that I consider it a privilege to count you among them. Therefore, if there is anything that you would like me to do in connection with your forthcoming trip to New York, please let me know.

With kindest personal regards to Mrs. Natta and yourself, I remain

Sincerely yours,

W P Hohenstein

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

12 giugno 1950

Ill.mo Prof. W.P. Hohenstein
Professor of Polymer Chemistry
Polytechnic Institute of Brooklyn
99 Livington Street
(U.S.A.) Brooklyn 2, New York

MB/mr

Caro Prof. Hohenstein,

Il Prof. Natta è partito in questo momento e, dato che starà via alcuni giorni, ha incaricato me di darLe altre notizie circa il punto di vista della Soc.Montecatini intorno al Suo procedimento di polimerizzazione dello stirolo.

Mentre si riconosce il vantaggio della più omogenea distribuzione del peso molecolare nella polimerizzazione in perle rispetto alla polimerizzazione in massa, si osserva che il mercato italiano ha finora impiegato soddisfacentemente il prodotto americano polimerizzato in massa e che risulterebbe che anche in America è entrato in marcia un impianto di polimerizzazione continua in massa.

Il Prof. Natta dispone di un campione di 1 Kg di stiroplasto Montecatini che vorrebbe farLe avere per un Suo giudizio. Il Prof. Natta desidera sapere se devo portarlo io in America (arriverò però il 7 luglio, cioè quando Lei sarà già partita) o se deve inviarlo a qualche Suo recapito in Europa. A sua volta sarebbe desiderabile che Lei inviasse o portasse con se un campione di prodotto ottenuto in emulsione.

Per quanto riguarda il costo di trasformazione, di fronte ad un costo minimo di 50 L. per il prodotto ottenuto in emulsione e per 200 tonn/mese il prodotto Montecatini presenterebbe un costo di L. 6[illegible] per 80 tonn./mese (escluso però l'ammortamento dell'impianto): la cosa meriterebbe perciò un esame più accurato delle diverse voci. Tutto ciò Le comunico in via riservata.

Il mio amico, come Le ho detto, è confermato per il 7 luglio prossimo.

Con i miglieri ossequi

(Prof.M.Baccaredda)

MONTECATINI

SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

SOC. per AZ. - CAPITALE VERSATO L. 18.000.000.000

MILANO

DIREZIONE TECNICA RESINE E VERNICI

DIREZIONE

MILANO, 9 giugno 1950
Via Albania, 18

Oggetto:

Signor
Prof. G. N A T T A
Istituto di Chimica Industriale
del Politecnico

M I L A N O
P.za L. da Vinci

Vs. Ns. Dr.SC.lg.

Egregio Professore,

mi riferisco alla Sua lettera del 31 maggio c.a.

Ho letto con molta attenzione quanto Le scrive il Prof.Hohenstein e non ho che a confermarLe quello che ho avuto occasione di esprimerLe durante la Sua recente visita a Castellanza.

Non metto in dubbio che la polimerizzazione in perle dia un polimero a distribuzione più omogenea di peso molecolare, il che rappresenta un vantaggio rispetto a quello ottenuto in massa; ma fino ad oggi il mercato italiano ha impiegato con soddisfazione polistirolo americano ottenuto per polimerizzazione in massa; e, d'altra parte, recenti contatti avuti coi tecnici di una grande Ditta americana ci hanno confermato che negli Stati Uniti è entrato in produzione un impianto di polimerizzazione continua in massa che marcia in modo assolutamente soddisfacente e che altri stanno per essere messi a punto.

Le sarà inviato a giorni un campione di 1 kg. del ns. stiroplasto che Ella verrà inviare al Prof. Hohenstein per un Suo giudizio e con la preghiera di farci spedire a Sua volta un campione di prodotto ottenuto in emulsione. Noi temiamo che la occlusione di percentuali sia pure piccolissime di disperdente o di umidità possano nuocere alla brillantezza e alla trasparenza del Polistirolo.

Per quanto riguarda il costo di trasformazione, occorrerebbe poter condurre una disamina più accurata delle diverse voci che lo compongono; perchè, di fronte ad un costo minimo di 50 £. per il prodotto ottenuto in emulsione a 200 tonn/mese stà il nostro di 40 £. per 80 tonn/mese (nel quale però non sono inclusi nè il deprezzamento dell'attrezzatura nè il fabbricato).

Cordiali saluti.

(Dr.Giovanni Saccenti)

C. C. postale 3/3711 - Cam. di Comm. 524 - Casella postale 3596 - Telefono 6333 - Telefoni interurbani chiedere GABBRO-MILANO - Telegrammi GABBRORESINE

Milano, 1 giugno 1950

GN/mm

Egr.Prof. W.Peter Hohenstein
Polytechnic Institute of Brooklyn
99 Livington Street
Brooklyn 2, New York

Caro Prof. Hohenstein,

Ho ricevuto la Sua lettera di cui ho trasmesso copia sia al ing. Giustiniani, sia al Dr. Saccenti, che è a capo del settore resine della Montecatini.

Sono stato la settimana scorsa a visitare il vecchio impianto di polimerizzazione dello stirolo della Montecatini a Castellanza che ha attualmente 3 unità in marcia. Con le nuove modifiche apportate il prodotto ottenuto ora è molto migliore di quello di una volta ed il costo di polimerizzazione è veramente minimo.

Il materiale subisce una prepolimerizzazione prima di entrare nell'apparecchio di polimerizzazione finale ed il polimero appena esce dall'apparecchio di polimerizzazione viene subito trafilato e spezzato in cilindretti di 3-4 mm di diametro di aspetto molto brillante. E' stata eliminata la la rifusione come veniva fatta in passato negli impianti della I.G. Come già le scrissi la Montecatini ritiene che l'attuale prodotto soddisfi le esigenze dei consumatori. Probabilmente in seguito una piccola produzione (forse il 10-15 % del totale) potrà essere fatta con il processo della polimerizzazione in sospensione se i consumatori desidereranno un prodotto a più alta temperatura di fusione. La terrò informata dello sviluppo della situazione che ora potrò meglio seguire essendo ora in frequente contatto con il direttore del Settore resine della Montecatini.

Ricordando la Sua gentile offerta le invio con la presente copia di tutti i documenti relativi alla domanda di brevetto negli Stati Uniti per il furfurolo, e precisamente:

Domanda n. 720.475:
- testo della domanda originariamente depositata
- 1° notificazione dell'Esaminatore
- risposta alla 1° notificazione
- II° notificazione
- risposta alla II° notificazione
- III° notificazione
- risposta alla III° notificazione
- IV° notificazione

Non Le posso per il momento inviare il testo della risposta alla IV° notificazione, il cui termine è scaduto l'8 maggio u.s., perchè esso non ci è stato ancora inviato dal nostro corrispondente al quale avevamo inviato istruzioni per la risposta.

Il nostro corrispondente che tratta le domande di brevetto a Washington è:

YOUNG, EMERY & THOMPSON
1025 Connecticut Ave. N.W. Suite 503
Washington 6, D.C.

Presso tale corrispondente di Washington Lei può trovare la risposta alla IV° notificazione che è stata molto esaminata. Sarebbe bene che Lei conoscesse tale nostra ultima risposta prima di parlare con l'esaminatore.

Siccome Lei è prossimo a partire per l'Europa senza che Lei non abbia il tempo di intervenirvi a Washington presso l'Ufficio Brevetti In tale caso La pregherei di informare l'Ing. Allioni c/o Young, Emery & Thompson - 1025 Connecticut - Ave. N.W. Suite 503 - Washington 6 D.C. e di trasmettergli la documentazione qui unita. L'Ing. Allioni è il nostro agente di brevetti di Roma che si trova in questi giorni a Washington.

La prego di comunicarmi il Suo indirizzo in Europa.

Molti ringraziamenti e cordiali saluti

Allegati: copie di documenti relativi alla domanda di brevetto n. 740.477

Milano, 12 maggio 1950

GN/mr

Egr.Prof.W.Peter Hohenstein
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2, New York

Caro Professore Hohenstein,

La prego di scusarmi se rispondo con ritardo alla Sua gentile lettera del 7 aprile.

Ho parlato ancora con i tecnici specialisti della Montecatini del problema del polistirolo, perchè ho visto che l'Ing. Giustiniani, troppo occupato in altri problemi più importanti, finisce spesso per non poter occuparsi di problemi di dettaglio e segue il parere dei suoi dipendenti specializzati.

I tecnici della Montecatini hanno fatto provare da diversi stampatori in Italia dei polistiroli americani e del polistirolo prodotto dalla Montecatini con la polimerizzazione in blocco (bulk polymerisation method) e gli stampatori si sono espressi favorevolmente al prodotto Montecatini. Gli stampatori preferiscono anche le dimensioni del prodotto Montecatini rispetto a quelle del prodotto polimerizzato in sospensione.

Inoltre i tecnici della Montecatini sono convinti che il processo di polimerizzazione in blocco costi meno? Ritengono che per gli usi comuni (che assorbono almeno il 95 % della produzione) non occorra avere un polistirolo a temperatura di fusione più alta ed a peso molecolare più omogeneo come si può avere con il Suo metodo. Se in seguito risulterà necessario per usi speciali avere un prodotto più omogeneo ed a peso molecolare più alto la Montecatini potrà successivamente prendere in considerazione il Suo procedimento. Questa è l'opinione attuale dei tecnici della Montecatini, ma se Lei mi può dimostrare che essa è sbagliata sarò lieto di appoggiare le Sue proposte.

Gradirei a tale scopo avere i seguenti dati:

1) Dati numerici di confronto tra le caratteristiche dei diversi polistiroli prodotti in America e possibilmente dati di confronto con il prodotto I.G.Farbenindustrie polimerizzato in blocco.

2) Dati di costo da cui risulta che la polimerizzazione in sospension costa meno che la polimerizzazione in blocco.

Mi è stato riferito che per ottenere polistirolo a peso molecolar molto alto la I.G.Farbenindustrie in collaborazione con la Soc.Svizzera Escher Wiss ha studiato un procedimento che opera nel vuoto spinto, che darebbe polimeri con una temperatura di fusione più alta che tutti gli altri metodi. Cercherò di avere notizie più precise.

Il Prof. Baccaredda ha ottenuto una borsa e sarà a New York ai primi di luglio partendo probabilmente il giorno 25 con il piroscafo Vulcania. Non appena anzi conoscerà il giorno preciso dell'arrivo si permetterà di comunicarglielo, per pregarLa di volergli prenotare la camera alla "International House", secondo la Sua cortese offerta. Egli si tratterrebbe circa quattro mesi presso il Loro Istituto e Le sarei molto grato se vorrà stabilire con il Prof. Mark un programma di lavoro per lui. Nel caso che l'Istituto disponesse dell'apparecchiatura elettrica per la misura della velocità ultrasonora egli potrebbe portare con sè parte della restante apparecchiatura e fare anche qualche misura su sostanze di Loro interesse.

E' probabile che Baccaredda arrivi a New York quando Lei sarà già partita per l'Europa; in questo caso, specie se per quell'epoca dovesse essere assente da Brooklyn anche il Prof. Mark, La pregherei anche di volermi indicare la persona alla quale Baccaredda dovrà presentarsi per iniziare il suo lavoro.

Ho incaricato il mio agente di brevetti di inviarLe una copia di tutte le pratiche relative al mio brevetto sul furfurolo, con copia delle obiezioni dell'esaminatore americano e delle nostra risposte. Le sarò molto grato se Lei potrà, recandosi a Washington, parlare con l'esaminatore.

Io sarò lieto di venire negli U.S.A. nel 1951 per il Congresso Internazionale di Chimica e gradirei sapere se è possibile avere da parte americana delle facilitazioni che consentano di ridurre le spese del viaggio.

Probabilmente io dovrò venire negli U.S.A. verso il 25-30 settembre e sarò lieto di poterLa incontrare a New York se Lei non sarà ancora partito per l'India. Io spero in ogni modo di poterLa vedere prima in Europa, se Lei farà una gita in Italia.

Ringraziandola vivamente Le invio i più cordiali saluti

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

April 7, 1950

Prof. Ing. Giulio Natta
Politecnico Di Milano
Piazza Leonardo Da Vinci 32
Milano, Italy

My dear Professor Natta,

Thank you for your kind letter of April 1st. I am, of course, a little disappointed about the decision of Montecatini, of which Ing. Gustiniani had already informed me in a tentative way a few weeks ago. I sincerely believe that the Italian market easily can absorb 2,000-3,000 tons of polystyrene per year and it seems to me that the Montecatini would be the logical firm to produce this material rather than let other firms get in the market. After all Montecatini is, or will be, the sole producer of monostyrene in Italy.

However, I understand that the plan of industrial expansion has to be worked out from many different angles and that probably other industrial projects are more pressing now than the polystyrene. I only hope that when, and if, the Montecatini builds a polystyrene plant they will not build according to the old outmoded and inefficient bulk polymerization method, but will utilize the suspension polymerization method which in all tests has proven superior as regards capital outlay, operating cost and quality of the end product. The proof of it is that factories in England and other European Countries are either being built or planned using the suspension polymerization method.

I will, of course, be delighted to assist you in your negotiations with your patent attorney. If necessary I shall also talk to the Patent Examiner on one of my trips to Washington. Please do not hesitate to write me if you need anything else.

I am glad to inform you that I have joined the Committee on Hospitality of the American Chemical Society, which Committee will take care of the foreign scientists expected to come to New York during 1951 for the International Congress. Needless to say I am especially delighted to be on this Committee since it will give me an opportunity to be of assistance to my many European scientific friends. So, if you have any

April 7, 1950

requests in connection with your forthcoming trip to New York, I should be very happy to be of assistance.

What are the plans of Prof. Baccareda? When is he coming to New York?

Hoping to hear from you soon, I remain, with best personal regards and best wishes to Mrs. Natta and yourself,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

P. S. My next trip to Europe will be in July of this year and I shall stay until the middle of September. Then I'll return to New York for a short while and shall then proceed to India where I will remain for six months on invitation of the National Council of Research.

I hope to have the pleasure of meeting Mrs. Natta and yourself sometime during my stay in Europe.

Milano, 1 aprile 1950

GN/mr

Egr.Prof.W.P.Hohenstein
Professor of Polymer Chemistry
Politechnic Institute of Brooklyn
99 Livington Street
Brooklyn 2. New York

Caro Professore,

Ho tardato a rispondere alla Sua lettera perchè ho voluto prima parlare del problema della polimerizzazione dello stirolo con l'ing. Giustiniani.

La decisione a cui è giunta la Montecatini è per ora quella di polimerizzare lo stirolo nell'impianto che ha già attualmente presso lo stabilimento della Soc. A.C.N.I. (che fa parte del Gruppo Montecatini).

Solo nel caso che il prodotto ottenuto non rispondesse a tutte le esigenze dei consumatori potrà esaminare in seguito l'installazione di nuovi impianti. Io credo perciò che il problema potrà ripresentarsi in seguito, tra 8-10 mesi, dopo che la produzione dello stirolo a Ferrara sarà iniziata e che il prodotto Montecati i sarà messo in commercio in grande quantità.

La decisione della Montecatini è giustificata dal fatto che attualmente ha diversi altri grandi programmi in altri rami dell'industria chimica che richiedono notevoli impegni finanziari, e dal fatto che la sua attuale piccola produzione è venduta con facilità e senza lamentele dai consumatori.

Ricordando la Sua gentile offerta Le trasmetterò tra qualche giorno copia di tutti i documenti relativi alla mia domanda negli U.S.A. di un mio brevetto per il furfurolo. Le sarò grato se Lei potrà parlare con l'agente dei brevetti e concretare la risposta all'ultima obiezione dell'esaminatore che sembra poco disposto a concedere il brevetto.

La ringrazio vivamente per il Suo gentile interessamento.

Molti cordiali saluti

Milano, 19 gennaio 1950

GN/mr

Riservatissima

Mr. W.P. Hohenstein
Professor of Polymer Chemistry
Politechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 2, New York

Caro Prof. Hohenstein,

Ho ricevuto ogni [illegible] gentile lettera del 19 c.m. e mi affretto a rispondergli. La ringrazio immensamente per il suo gentile interessamento per la sottoscrizione ai diversi giornali americani.

Per quanto riguarda il polistirolo desidero informarla riservatamente di un nuovo fatto che può avere una notevole influenza sullo sviluppo delle attività. Una società americana (la "Dow") ha offerto gratuitamente tutta la sua esperienza sulla polimerizzazione con il solo patto che la Montecatini venda il stirolo o l'etilbenzolo da essa in America. Verrebbe stabilito che l'impegno da parte della Montecatini cesserebbe appena essa produrrà stirolo o etilbenzolo in [illegible] propri stabilimenti in Italia.

Siccome la [illegible] ha acquistato lo stabilimento di Ferrara e sta per sistemare [illegible] Cairo, presso un impianto di frazionamento del [illegible], [illegible] dell'etilene, credo che la Montecatini tra non molto tempo potrà produrre essa stessa lo stirolo. L'impegno di acquistare lo stirolo sino a che non lo produrrà essa stessa non [illegible] per la una limitazione [illegible]. L'accordo con la "Dow" [illegible] il vantaggio che la Montecatini potrebbe usare con piccole modifiche l'impianto di polimerizzazione del suo stabilimento di Castellanza [illegible]. Considererei [illegible] di comunicarmi:

1) se vi sono [illegible] il polistirolo prodotto dalla "Dow" e quello prodotto con il suo procedimento.
2) Tutti quei dati [illegible] che l'accordo con la "Dow".

[illegible] la Montecatini. Io personalmente essendo consulente [illegible], non posso [illegible]. Posso perciò farlo solo in via [illegible] volentieri le due alternative con la Montecatini, se [illegible] le convenienze [illegible] accordo.

Rinnovandole i miei ringraziamenti [illegible] i miei più cordiali saluti.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

January 13, 1950

Prof. Ing. Giulio Natta
Politecnico Di Milano
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Right after my return to New York I attended to the matter of your membership fee for the American Chemical Society as well as to the subscription to the various journals which you desired. I trust that by now you are already receiving these journals.

The purpose of this letter is to ask you frankly how, in your opinion, the polystyrene project with Montecatini is progressing? In other words, do you think that the Montecatini will undertake this project at all and, if so, will they do it with me?

It is of course quite difficult to conduct negotiations for a new contract over a distance of four-thousand miles. Therefore, I would have liked very much that somebody in Italy should personally represent me in these negotiations, and watch the development of the whole matter for me. I certainly would have asked you to do this for me; however, I know that as a consultant for Montecatini you may not want to become involved on both sides. May I, therefore, ask you if, in your opinion, it is necessary to find somebody of high professional standing and in good contact with Montecatini, who would negotiate further with them, and could you recommend such a person to me? I am, of course, willing to recompense the services of this gentleman if the contract is successfully concluded.

At the close of our discussion with Mr. Giustiniani he indicated to me that the New York representative of the Montecatini would contact me here after my return to the States. So far I have not heard from the Montecatini agent in New York and I am writing a letter to that effect to

January 13, 1950

Mr. Giustiniani.

I take this occasion to thank Mrs. Natta and you once more for the splendid hospitality that you have shown me during my stay in Milano. I hope to reciprocate when you and Mrs. Natta visit New York in 1951.

With best wishes and kindest personal regards to your family,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

USA 1951

M. M. ROSTEN
50 EAST 78 ST.
NEW YORK 21, N.Y.

October 15, 1951

Professor Giulio Natta
Piazza Leonardo Da Vinci 32
Milano, Lombardy

Dear Professor Natta:

Thank you for your letter of September 20th. Mrs. Rosten and I are very sorry to hear that you and your wife will not be visiting us in New York this fall.

I am pleased to learn that you will send me data on furfural production very shortly. With reference to ammonia, I shall forward you requested data on composition of cracking gas as soon as this information is obtained.

Thank you for the information you furnished me on Doctor Carlo Randaccio.

During my stay in Champoluc, we discussed the possibility of furnishing American knowhow to Montecatini for building a synthetic rubber plant in Italy. I would appreciate your letting me know the exact capacity of the plant, the type of rubber which they intend to produce and the raw material available.

I think that I can be helpful in not only providing the necessary engineering but also some credits through the Marshall Plan, especially for equipment which can be purchased in this country.

Under separate cover, I am mailing you a copy of my latest article "The Distilling Industry in Retrospect". I think you will be interested in reading about the economics of this size industry in this country.

With kindest personal regards to you and Mrs. Natta, I remain

Sincerely yours,

M. M. ROSTEN

MMR/pg

M. M. ROSTEN
50 EAST 78 ST.
NEW YORK 21, N. Y.

July 10, 1951

Professor Giulio Natta
Politechnico Di Milano
Piazza Leonardo Da Vinci 32
Milano, Lombardy

Dear Professor Natta:

Thank you for your letter of June 27th.

I shall be in Paris at the end of this month, and I shall contact you further from there in order that we can arrange a convenient meeting for discussing this matter.

Very truly yours,

M. M. ROSTEN

MMR/pg

19th October 1951

Mr. W.M. Rosten
National Distillers Products Co
120 Broadway
New York - U.S.A.

Dear Mr. Rosten,

Please excuse me not having sent you the data relating to furfural production that I had promised to you.

Mr. Brownlee of the Quaker Oats visited me. He interested very much in our continuous processing for furfural production and said me that Quaker Oats has studied for fifteen years, without solving it, this problem we did solve.

Quaker Oats's interest in our proceeding is due to the fact that with its discontinuous process the yields are only 50-60% on the theoretical ones, and with our process, treating suitable starting material, yields higher than 80% may be reached.

Therefore, by applying our proceeding, the Quaker Oats could raise its furfural production, e.g. with a plant actually producing 10,000t per year, to 15,000t, treating the same quantity of raw material.

As the Quaker Oats is quite experienced in furfural field, the Bombrini Parodi Delfino Co., which is interested with me in our proceeding, would like better to come to an agreement with the Quaker Oats for the first plant in U.S.A.

Therefore, we think it is better, before opening serious negotiations with the National Distillers Products Co. or with others, to bring to an end the negotiations begun with the Quaker Oats, for we are of the opinion that this Company by itself, our proceeding and by its own technical staff are likely to find better advantages, and better compare it with the old processes.

In the case that you think your Company may have a larger interest than the Quaker Oats and our better conditions, engaging to build up a plant quickly, the question might be examined.

The negotiations with Mr. Brownlee of the Quaker Oats have been delayed on the payment of expenses, made up-to-date by the Bombrini Parodi Delfino for research and pilot plant, that is about $ 50,000, plus a royalty, not yet exactly settled, on the increased production of furfural by our proceeding, with respect to the actual proceeding.

Plant cost with our proceeding seems to be a little lower than the one with the Quacker Oats's processing and is about $ 25 per ton of raw material treated, per year. E.g. a plant treating 50,000 ton/year of starting material would cost $ 1,400,000, herewith included steam production, energy, buildings, etc.

Furfural yield result to be:

Rice husks	10%
Flax residues	12%
Mais cobs	15%

We are carrying out some trials with cottonseed hull bran and corn straw.

Reagent consumption is the following: Chlorine or Hydrochloric Acid : 2,5-3% in weight, with respect to the material treated.

Steam required (Kg.2,5-3 per Kg of raw material treated) is obtained quite by burning residues, without using other combustible.

As steam is utilized at a pressure of 1 Kg/cm² it is possible to produce energy as by-product, in a very large excess, with respect to the factory use.

About 10,000,000 Kwh/year could be available as by-product, in a plant treating 50,000 t/year of raw material.

With many materials we obtain as by-product 6-7% of acetic acid, with respect to the material treated. On the contrary, the Quacker Oats with its processing, only obtain 2-3%. It seems therefore to be economically possible a recovery of acetic acid, which is not possible with the process of the Quacker Oats, because of the large dilution of the waste waters.

We think that, before building up a large industrial plant, it is better to build up a pilot plant, larger than the plant of Bolloferro (which treated 2 t/day of raw material) and retain suitable that the new pilot plant which has to build up in U.S.A. should be able to treat least 20 t/day.

Now we are studying a plant of this production in France, using as starting material flax residues.

I shall be glad to hear your news and your friendly advice.

Ing. Giustiniani had to delay his trip to U.S.A. and I shall let you know when he will be to New York.

With kindest regards

Yours very truly

20th September 1951

Ir M. M. Rosten
National Distillers Products Corp.
120 Broadway
New York U.S.A.

Dear Ir Rosten,

I have been very pleased to have made your knowledge and thank you for your visit at Champoluc.

I have delayed writing to you ,as I hoped to meet you in New York and,until the last,I hoped to receive the visá from the American Consulate. For reasons I do not know,the visá has not been given to me yet,thus I had to give up the journey.

Ing. Giustiniani will likely go to U.S.A. about the end of october and will be pleased to meet you.The utilisation of residual ethane cracking gas after ethylene production should permit a production of about 150-200 t/day of NH_3. If you will be able to send us data on the composition of the cracking gas,we shall send you data on the plant and production costs.

As to furfural,we have even improved laboratory results and studied the possibility of recovering acetic acid which forms as by-product.

Next Saturday I shall meet with Ir Brownlee of the Quaker Oats Limited of Southall,who is interested in our processing and we shall examine together some technical and economic questions.

Next week I shall send you the data you requested to me, for furfural production from the new materials you had spoken about.

I enclose herewith the informations you asked about Ir Carlo Randaccio.

I and my wife,who whishes to be remembered to you, send you our kindest regards.

Your sincerely

Informations about Dr Carlo Randaccio

Dr Carlo Randaccio,as far as I know,is a clever technician who formed almost completely by himself,from the industrial point of view,after a stay of about two years to the Polytechnic School of Berlin and of another pair of years to the University of Bologna as an assistant.

His fortune is due substantially to the production of lead tetraethyl,which he realized by means of a processing that he develpped without applying to any foreign collaboration for help. Such a production let him able to make a contract with Italian Air Force ,which was the basis of his economic fortune.

At present time,as there results from informations of some friends of Bologna,his fortune is much higher than one milliard of lire,and amounts perhaps to two milliards.

He is a person hard to negotiate with,also for the reason that he has a temperament rather unstable.

The S.L.O.I.(Societa Lavorazioni organiche inorganiche) which had been built up with the FIAT and which now belongs to him,produces essentially chlorine-soda,lead tetraethyl, methyl chloride and some other products of secondary importance.

PROF. DOTT. ING. GIULIO NATTA
Ordinario di Chimica Industriale
POLITECNICO DI MILANO

14 July 1951

MILANO - PIAZZA LEONARDO DA VINCI 32
TEL. 292.125 - 292.126
ABITAZ.: VIA M. PAGANO 54
TEL. 46.308

Mr.M.M.Rosten
50 East 78 ST
New York 21,N.Y.

Dear Mr.Rosten,

I am in receipt of your letter of July 10th. I shall be pleased to meet you in Italy. I shall be ~~in Milan~~ till August 2-3th. Then, since August 3th to ~~20~~ 18th at Champoluc (Val d'Aosta) where I'll spend my holiday in a villa at 5.000 feets, at the foot of Monte Rosa on Alps.

Will you be in Italy before August 2th, I'll be able to see you in Milan. Otherwise, will you be pleased to have a turn on the Alps, we can meet in Val d'Aosta and I'll take you to Champoluc from Verres stop by motor-car.

Awaiting your news, I am

yours truly

14 July 1951

Mr.M.M.Rosten
50 East 78 ST
New York 21,N.Y.

Dear Mr.Rosten,

I am in receipt of your letter of July 10th. I shall be pleased to meet you in Italy. I shall be in Milan till August 2-3th. Then,since August 3th to 20th at Champoluc (Val d'Aosta) where I'll spend my holiday in a villa at 5.000 feets,at the foot of Monte Rosa on Alps.

Will you be in Italy before August 2th,I'll be able to see you in Milan. Otherwise,will you be pleased to have a turn on the Alps,we can meet in Val d'Aosta and I'll take you to Champoluc from Verres stop by motor-car.

Awaiting your news, I am

yours truly

M. M. ROSTEN
50 EAST 78 ST.
NEW YORK 21, N. Y.

June 22, 1951

Professors G. Natta & E. Beati
University of Milan
Milan, Lombardy
Italy

Dear Sirs:

A large chemical company with which I am associated is interested in producing large quantities of furfural.

I was informed that you have developed a new method of producing furfural by using hydrochloric acid. Have your investigations gone beyond the pilot plant stage or are they in the laboratory stage? Is your method protected by a U. S. patent or patent application, and would you be interested in selling your method to the United States? If so, on what terms?

I would appreciate a prompt reply, inasmuch as I plan to be in Europe shortly, at which time I should like to visit you to discuss this matter in detail in the event your method can be practically applied.

Very truly yours,

M. M. ROSTEN

MMR/pg

NATIONAL ACADEMY OF SCIENCES
2101 CONSTITUTION AVENUE
WASHINGTON 25, D. C.

October 24, 1951

Mr. Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Mr. Natta:

Enclosed is our bank draft in the amount of $13.00 representing refund of your membership fee to the International Union and Congress of Chemistry.

Yours very truly,

B. L. Kropp
Assistant Business Manager

BLK:aw

Encl: 1

30 July 1951

Mr. [illegible] Kosten
Hotel Majestic
Chamonix (France)

Dear Mr. Kosten

you proposed me by telephone to meet you at Chamonix on Sunday the 5th August.

If you would like to see the Vally of Aosta on the other side of Mont Blanc, I invite you to come and stay in my country house at Champoluc. You can reach this place by car from Chamonix passing 'le Petit St.bernard' -- Aosta -- Verrès -- Champoluc. It takes about 5 hours. You will be my guest and you will know the magnificent side of the Italian Alps. Let me know something by sending me a telegram to Milan, if this meeting can take place at Champoluc instead of Chamonix.

Otherwise I shall come on Sunday or Monday to Chamonix. Let me know please if on Monday the 6th you are still in Chamonix or if you will be coming to Champoluc, as soon as possible.

I am giving you the address of my country house, if you will come:

Prof. Natta -- Villa Rosti -- Champoluc

I shall go there for the week-end and I shall remain there about 15 days.

With the best regards

Yours sincerely

27 June 1951

Mr.M.M.Rosten
50 East 72 St.
New York 21, N.Y.

Dear Mr.Rosten,

I am in receipt of your letter of 22 June. I wish to inform you that another American Company is interested in our proceedings for furfural production from American raw materials, but we have not yet come to any definitive arrangement.

Therefore I should like to know more in the Chemical Company with which you are associated.

I have studied the process in Italy with the Imperial Paper Selling Company of Rome. The method is protected by an Italian patent application and another application has been requested.

The process we have studied for furfural extraction has been applied in a pilot plant in Italy, producing 200 K/day of furfural, which confirms our laboratory results.

We have developed a preliminary project for a plant producing 10t/day of furfural, raw material being rice husks. This plant has not been realized, as there is no possibility in Italy of disposing of a sufficient quantity of raw material concentrated in one spot, for which a low cost price can be granted for a long period of time.

Evaluating a cost price of rice husks at $ 8-08 each ton, a cost price for furfural can be calculated, which results to be lower than the actual current price.

Now, we are developing the study of a plant in France, using flax fibers waste as operating material.

In case that you will let me know precisely the raw material you can have at your disposal, I'll be able to send you data more detailed on the applicability of our process to such material.

I was told that in some mountains of Indiana and California there is a wide availability of pine barks.

Other raw materials may be [illegible], which give higher yields of furfural than the [illegible].

Awaiting your reply, I am

Yours [illegible]

MONSANTO CHEMICAL COMPANY

GENERAL DEVELOPMENT DEPARTMENT

SAINT LOUIS 4, MISSOURI, U. S. A.

Cable Address
Monsanto - St. Louis

Please Reply To:
GENERAL DEVELOPMENT DEPARTMENT
St. Louis 4, Mo., U.S.A.

October 1, 1957

Professor Giulio Natta
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Thanks very much for your letter of September 23, regarding the delay incurred in connection with your planned trip to the United States. We were extremely sorry to hear of the delay and regret very much that you were not able to attend the World Chemical Congress and to visit our Plastics Division.

If you make the trip later, Mr. J. J. Usera of our New York office will appreciate being informed of your plans.

We appreciate your kind sig[illegible] to have someone from Monsanto visit your laboratory. W[illegible] this [illegible] your client.

Last Sunday, September 22, I had the pleasure of meeting Dr. Piero Pino of your laboratory, who was my guest at Alpe E[illegible]. He is not only a fine chemist but a charming guest. I hope that he enjoyed his visit to us. It is a part of the [illegible] he is working in this country.

Sincerely yours,

D. J. Waddell

D. J. Waddell

DJW:[illegible]

MONSANTO CHEMICAL COMPANY

GENERAL DEVELOPMENT DEPARTMENT

SAINT LOUIS 4, MISSOURI, U. S. A.

Cable Address
Monsanto - St. Louis

Please Reply To:
GENERAL DEVELOPMENT DEPARTMENT
St. Louis 4, Mo., U.S.A.

September 13, 1951

Professor Giulio Natta
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

I was unable to locate you last week in New York during the American Chemical Society Meeting, and now I understand from our New York office that you were delayed and probably did not arrive in time for the International Congress this week. I am sorry that this happened, as, no doubt, you were very interested in attending this World Chemical Conclave.

Our New York office could not learn when you plan to arrive in the United States under your new schedule, but we understand that you are still planning to visit this country. I suggest, when you do arrive in New York, that you contact Mr. J. J. Usera at our New York office, 445 Park Avenue, and discuss with him the fields in which you are interested. We have heard from our Plastics Division that they will be glad to have you visit their Springfield, Massachusetts, plant. If you are interested in doing this, Mr. Usera will assist you in working out the details for this visit. If you can let Mr. Usera know in advance what your schedule will be, he will be able to find out before you arrive which dates would be suitable for a visit to Springfield.

We hope that you will be able to complete the arrangements for your trip to this country. Mr. Usera will be looking forward to hearing from you.

Sincerely yours,

D. S. Weddell

D. S. Weddell

DSW:mms

MONSANTO CHEMICAL COMPANY

GENERAL DEVELOPMENT DEPARTMENT

SAINT LOUIS 4, MISSOURI, U. S. A.

Cable Address
Monsanto - St. Louis

Please Reply To:
GENERAL DEVELOPMENT DEPARTMENT
St. Louis 4, Mo., U.S.A.

August 24, 1951

Professor Giulio Natta
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Dr. C. A. Hochwalt has given me your letter of July 31. We are pleased to know that you will be able to attend our reception in New York.

Since many of our technical people will be attending the World Chemical Conclave, it would be very helpful if some of us could have a preliminary discussion with you in New York regarding the fields of mutual interest. Whatever additional arrangements may be necessary could then be done at that time. I shall be in touch with you early the week of September 3 and am looking forward to meeting you in New York.

Sincerely yours,

D. S. Weddell

D. S. Weddell

DSW:mms

September 20, 1951

Mr D. S. Weddel
Monsanto Chemical Company
General Development Department
St. Louis 4, Missouri, U.S.A.

Dear Mr Weddel;

I thank you very much for your kind letter of September 13. I was not able to attend to the World Chemical Conclave for the lack of the American visa to my passport, and I do not know the reasons of the delay. I know that your President too was interested in this matter and I pray you to let him have my thanks.

Even if I shall have the visa in a short time, likely I shall not be able to come to U.S.A. soon, as I have many engagements in Europa.

Should I have the opportunity of coming to U.S.A. later, I shall certainly inform Mr J. J. Usera, and I shall be very pleased to visit your Plastics Division in Springfield.

If people of the Monsanto will have the opportunity of coming to Italy, I shall be very glad to see them and to let them visit my Research Laboratory.

With kindest regards

Yours faithfully

(Prof. G. Natta)

AIR MAIL

United States Lines

S.S. AMERICA

En route to New York
June 7,1951

Prof. Giulio Natta
Via Mario Pagano 56
Milano, Italy

Dear Professor Natta:

It has been almost three weeks since we had the pleasure of meeting you as well as Mrs. Natta and your family, but there was no opportunity for writing to you sooner. I was glad to learn about your continued interest in General Aniline's activities in the field of acetylene chemistry. Upon my return to the U.S. I will report to our Development Department on the various items that we discussed.

My wife, the children, and I myself would like to express once more our sincere appreciation for the kind reception and exquisite hospitality that we enjoyed in your home!

With kind regards, in which my wife joins me,

very sincerely yours,

J M Lambert

J. M. Lambert

Address:
General Aniline & Film Corp.
Central Research Laboratory
Easton, Pa.

CABLE ADDRESS: NEWLANDIN

THE NEW ENGLAND INDUSTRIES, INC.
120 WALL STREET
NEW YORK 5, N. Y.
WHITEHALL 3-1600

IN REPLY REFER TO:

July 3, 1951

Professor Giulio Natta
University of Milan
Milan, Italy

Dear Professor Natta:

Thank you very much for your informative letter of June 25th, and in reply thereto I might say that our company is very much interested in your process.

At the present writing we have at our disposal corn cobs and corn stalks which contain a theoretical percentage of Furfural of 20 and 16-1/2% respectively. The theoretical percentage of Furfural in Rice Hulls is only about 12%. Is your process applicable to the production of Furfural from the raw materials we have available, and if so, we would appreciate any information regarding the cost of equipment to produce ten tons per day.

2.0 mm $
(eq. working, fabrication, building and erection)

Any information you could give us regarding the production cost of Furfural per pound using your process, with a basic cost of $10.00 per ton for raw material, together with any other information that you might have available, will be appreciated.

Very truly yours,

THE NEW ENGLAND INDUSTRIES, INC.

Richard Kotts, Jr.

Richard Kotts Jr.

RK:dk

Maize Indian corn

(maintenance 5% of eqm)

CABLE ADDRESS: NEWLANDIN

THE NEW ENGLAND INDUSTRIES, INC.
120 WALL STREET
NEW YORK 5, N. Y.
WHITEHALL 3-1600

IN REPLY REFER TO:

June 15, 1951

Prof. G. Natta
University of Milan
Milan, Italy

Dear Prof. Natta:

Researches which you have conducted on the continuous production of furfural are of great interest.

Could you possibly send us some details regarding your process in addition to what was published on Page 23 of the June 16, 1951 edition of Chemical Week.

A prompt reply would be greatly appreciated.

Very truly yours,

THE NEW ENGLAND INDUSTRIES, INC.

Richard Kotts, Jr.

Richard Kotts, Jr.

RK:dk

Prof.Dr.Ing.GIULIO NATTA
Ordinario di Chimica Industriale
Politecnico di Milano

Milan, 25th June 1951

Mr.Richard Kotts,Jr.
The new England Industries,Inc.
120 Wall Street- New York 5,N.Y.

Dear Mr. Kotts:

The process we have studies for furfural extraction has been ap in a pilot plant in Italy ,producing 200 Kg: day of furfural,which con firmed our laboratory results.

We have developed a preliminary project for a plant producing 1 t/day of furfural,raw material being rice husks. This plant has not b en realized,as there is no possibility in Italy of disposing of a suff cient quantity of raw material concentrated in one spot,for which a lo cost price can be granted for a long period of time .

Evaluating a cost price of rice husks of 8-9 $ each ton, a cost price for furfural can be calculated,which results to be low to be low than the american current price.

Now,we are developing the study of a plant in France,using flax fibers waste as starting material .

In case that you will let me knowprecisely the raw material you can have at your disposal,I'll be able to send you data more detailed the applicability of our process on such materials .

I was told that in some countries of Lousiana and California t re is a wide availability of rice husks.

Other raw materials can be oat hulls or corncobs,which give hi gher yields of furfural than rice husks.

Awaiting your reply

I am

Yours truly

PROF. DOTT. ING. GIULIO NATTA
Ordinario di Chimica Industriale
POLITECNICO DI MILANO

Milan, 25th June 1951

MILANO - PIAZZA LEONARDO DA VINCI 32
TEL. 292.125 - 292.126
ABITAZ.: VIA M. PAGANO 54
TEL. 46.308

Mr. Richard Kotts, Jr.

The new England Industries, Inc.

120 Wall Street- New York 5, N.Y.

Dear Mr. Kotts:

I am in receipt of your letter of 15th June. The process we have studied for furfural extraction has been applied in a pilot plant in Italy, producing 200 Kg:day of furfural, which confirmed our laboratory results.

We have developed a preliminary project for a plant producing 10 t/day of furfural, raw material being rice husks. This plant has not been realized, as there is no possibility in Italy of disposing of a sufficient quantity of raw material concentrated in one spot, for which a low cost price can be granted for a long period of time.

Evaluating a cost price of rice husks of 8-9 $ each ton, a cost price for furfural can be calculated, which results to be low to be lower than the american current price.

Now, we are developing the study of a plant in France, using flax fibers waste as starting material.

In case that you will let me know precisely the raw material you can have at your disposal, I'll be able to send you data more detailed on the applicability of our process on such materials.

I was told that in some countries of Lousiana and California there is a wide availability of rice husks.

Other raw materials can be oat hulls or corncobs, which give higher yields of fuffural than rice husks.

Awaiting your reply

I am

Yours truly

July 25,1951

Mr.Harry Fisher,Ph.D.
2101 Constitution Avenue
Washington 25,D.C.
U.S.A.

Dear Mr.Fisher,

I thank you for your kind letter of July 17.

I hope to be able to come to New York,if American Consulate will early appose the visé to my passport,that I requested a month ago. Unfortunately,the American Consulate of Milan transacts practicas with a very great slowness and I would not visé to be ready when Congress will be over. There is no reason for visé not to be given to me,for I am not inscribed in any political party,during fascist period I occupied no political charge and,as you do know,I am very far from being bent to communism.

I am addressing to you to pray you if it is possible to press on Consulate of Milan from Washington for the rapid release of the visé d passports for my wife and myself.

I wish to inform you that I have been designated as Italian delegate to represent the "Consiglio Nazionale delle Ricerche (Natinal Research Council of Italy) at the Congress of New York.

I thank you very much and,in the hope to have the pleasure of greeting you in New York, I am

Yours very sincerely

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

CENTRAL
EXPERIMENT STATION

4800 FORBES STREET
PITTSBURGH 13, PENNSYLVANIA

June 4, 1951

Dr. G. Natta
Instituto di Chimica Industriale del Politecnico
Centro Studi di Chimica Industriale del C.N.R.
Milano, Italy

Dear Dr. Natta:

We have read with interest your excellent article in La Chimica e L'Indvstria, XXXII, N. 5, Maggio 1950, entitled "Carboxylation of Olefins with Carbon Monoxide and Alcohols". At the end of the article many references are cited to other work on the same and related subjects that you and your collaborators have published. We would like very much to secure reprints of all the articles that you have published on the reactions of organic compounds with carbon monoxide. Dr. Orchin and I are in the process of compiling a list of reactions of the organic compounds with carbon monoxide that have appeared in the literature. We should like to include your work in this compilation.

Dr. Orchin and I have done some work on the chemistry of the oxo and related reactions and we have taken the liberty of enclosing some of our reprints. We would appreciate any comments which you may have on this work. Since we are both interested in reactions of organic compounds with carbon monoxide, this exchange of information should be of mutual advantage.

Kindest regards.

Sincerely yours,

Irving Wender

Irving Wender, Organic Chemist
Synthetic Fuels Research Branch

Encls.

XIIth International Congress of Pure and Applied Chemistry

NATIONAL RESEARCH COUNCIL
DIVISION OF CHEMISTRY AND
CHEMICAL TECHNOLOGY

HARRY L. FISHER, PH.D.
Administrative Assistant
2101 CONSTITUTION AVENUE
WASHINGTON 25, D. C.
U. S. A.

October 1, 1951

Dr. Guilo Natta
Via Mario Pagano 54
Milano, Italy

Dear Dr. Natta:

It was with real regret that I did not see you and Mrs. Natta among those who came from your country to the International Meetings in New York earlier this month. You have probably learned about what went on from some of your colleagues who were here and have now returned. We were very happy to greet them but very sorry not to be able to greet you also. Mrs. Fisher and I had been looking forward with much pleasure to seeing you and having you with us but unfortunately that was not possible. We did all we could to help you in your difficulties.

I had a good opportunity to see Professor Emanuel Oliveri and have a nice talk with him.

I send both you and Mrs. Natta my kindest regards and best wishes.

Sincerely yours,

Harry L. Fisher

Harry L. Fisher

HLF:FC
CC: Dr. A. B. Lamb
Dr. W. A. Noyes, Jr.

XIIth International Congress of Pure and Applied Chemistry

NATIONAL RESEARCH COUNCIL
DIVISION OF CHEMISTRY AND
CHEMICAL TECHNOLOGY

HARRY L. FISHER, PH.D.
Administrative Assistant
2101 CONSTITUTION AVENUE
WASHINGTON 25, D. C.
U. S. A.

July 17, 1951

Prof. Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Professor Natta:

I am very glad to acknowledge the receipt of the article by yourself, P. Pino and R. Ercoli entitled "Research on the Synthesis of Oxygen-containing Organic Compounds from non Saturated Compounds and Carbon Monoxide in Presence of Cobalt Catalysts" sent with your letter of July 10. I believe you already have our card announcing that your paper is on the program. It is #82 in Section 12, Organic Chemistry.

I note that you have added the name of R. Ercoli and I am adding the name of this co-author in the official program which is now being assembled for printing.

It will not be long now before I have the pleasure of greeting Mrs. Natta and yourself in New York.

Sincerely yours,

Harry L. Fisher

Harry L. Fisher

HLF:JH

10 July 1951

Mr.Harry L. Fisher,Ph;D.
2101 Constitution Avenue
Washington 25 D.C. - U.S.A.

National Research Council
Division of Chemistry and Chemical
Technology

Dear Dr. Fisher,

Please excuse me to send you but now the complete article for the Congress :"G.Natta,P.Pino,R.Ercoli - Research on the synthesis of oxygen-containing organic compounds from non saturated compounds and carbon monoxide in presence of cobalt catalysts",of which I had sent you the abstract on 13 april 1951.

In the case that it would be too late for it to be accepted,I should be very grateful to you,would you send it to an American review for the publication.

I thank you very much and,in the hope to see you in New York on September,I send you my kindest regards.

Yours very sincerely

27 June 1951

Prof.Irving Wender,Organic Chemist
Synthetic Fuels Research Branch
U.S.Iepartment of the Interior
Bureau of Mines
4800 Forbes Street
Pittsburgh 13,Pennsylvania - U.S.A

Iear Prof.Wender,

I thank you very much for your kind letter of 4 June and for the abstracts you kindly sent to me.

I had already read with a great interest some works of yours and Ir.Orchin which do represent one of the greatest contributes to the knowledge of the reactions between carbon monoxide and olefins.I did not know your work "New modifications of the oxoprocess",which appeared in the "Armed Forces Chemical Jou Journal" and am very grateful to you for having sent me it.

Since 1929 I had carried some investigations on reactions between CO and H_2,and in particular on the synthesis of methanol and higher alcohols,and,since 1941,on the oxosynthesis;but,during the war,these researches have undergone an interruption. Since three years only we started again with researches in this field and actually,at the Labbratory of Industrial Chemistry of Polytechnique,my coworkers are Ir.Pino and other young chemists.

Under separarte cover I am sending you the reprints of our works in the field of oxoreactions.

In your works I found many observations very important, among which the distribution of products obtained during hydroformylation of olefins,which demonstrates that the isomerisation of olefins does not occur before the oxoreaction,as german chemists thought,but occurs simultaneously.

Your studies on the hydrogenating action of cobalt hydrocarbonyl are very interesting too. Our researches have demonstrated that cobalt hydrocarbonyl is also a dehydrogenation catalyst and is able to convert secondary alcohols into ketones, if the reaction is carried out in absence or in defect of hydrogen and can behave as a Redox catalyst.

Your works on homologation of aliphatic alcohols are of a wide interest also. We worked very much on the reaction between carbon monoxide and methanol in presence of various

catalystsfor the synthesis of acetic acid,and have succeeded in lowering work pressure,obtaining a quantitative conversion of methanol into acetic acid and dimethyl acetate. During such researches and in other ones on the carbonylation of olefins in the presence of methahol,we have observed that the following reactions easily occur:

$$2CH_3OH = CH_3O\ CH_3 + H_2O$$

$$CH_3OCH + CO = CH_3COOCH_3$$

As to the formation of ethyl alcohol,one might think to the hydrogenation of methyl acetate:

$$CH_3COOCH_3 + 2H_2 = CH_3CH_2OH + CH_3OH$$

and this agrees with the presence of methyl acetate you have observed in the experiments on the homologation of methyl alcohol.

In our researches on carbonylation of olefins we also observed that methanol behaves very differently from other alcohols,and this is confirmed by you in the different behavior of higher alcohols in the homologation reaction.

During the recent World Petroleum Congress held in Holland,there have been read two papers on the oxosynthesis, the one by Hoog,of the Shell Company,the other by me. Roelen was present to the discussion and some French researchers also who had been interested in oxosynthesis.

As this research field is a very interesting one,in which many questions are not yet quite solved,it has been spoken about the possibility of holding a symposium in Europe (for instance in Italy) to which participate the most known researchers in the field of oxosynthesis. I think that your participation would be very important and should like what do you think about.

Likely I shall participate to the International Chemical Congress which will be held in September in New York,and sent there a paper on the modified oxosynthesis.

I hope to have the opportunity to make your knowledge and to speak with you about the questions which do interest us

Kindest regards

Yours very truly

ELEMENTS OF COST OF PRODUCTION

UNIT FURFURAL CAPACITY 3300 TONNES/YEAR

I - Raw materials

	Quantity per day	Quantity per year	Unit cost	Cost/tonne furfural
Furfural	10 T	3300 T		
Acetic acid	3 T	990 T		
Corncobs	80 T	26400 T	10	80
Chlorine (or HCl)	2 T → 2,5	660 T	50	10 → 12,5
Calk stone	5,5 T	1320 T	[illegible]	4,40
				94,40 96,90

II - Utilities

Cooling water : 7500 T/day
Overheated steam (300° - [illegible] ats.) 230 T /day
Steam is all produced by burning corncobs residues after furfural extraction. These residues have a calorific value of 4.600.000 cal/T. Is steam produced at elevated pressure and utilized at low pressure, it is possible to produce electric power (19.000 Kwh), of which more than 2/3 can be considered as by-products.

III - Operating cost :

Labor 6 operators	26,20
Supervision 2 operator	3,00
Maintenance 5 %	4,65
Depreciation ; insurance etc.	18,60
Overhead expenses and miscellaneous	15,00
	6666
	67,45

By-products credits: 12.000 Kwh/day
(The cost of equipment for the production of steam from combustion of residues of corncobs after extraction of furfural is not accounted above).

Acetic acid : 4 T/day
(The extraction cost of acetic acid from waste solution and the equipment is not accounted above).

14 July 1951

The New England Industries, Inc.
120 Wall Street - New York 5, N.Y.

Dear Sir,

I am in receipt of your letter of 3 July.

Our experiments with the pilot plant producing 200 Kg/day of furfural have been carried out with maize core (Indian corn-cobs) and rice hulls. While rice hulls may be used such as they are, without any mechanical pre-treatment, maize cores necessitate a previous crushing as to be reduced in pieces 5-10 mm size.

Usual practical yields with maize core are 12-14% and can be higher than 18 when there is a disposal of steam in a quantity higher than that obtainible from combustion of treatment residues.

As a by-product, about 4 T/day of acetic acid are obtainible.

We never examined furfural extraction from corn-stalks. They also would have to be crushed, and it would be examined if they have not a lower specific weight and a lower permeability of external surface, as in this cases larger volume of the reaction tanks would be required. Therefore, I should advice you to limit at first study to the use of corncobs. It shall be necessary to you to examine whether it is possible to receive this raw material during all year and which is its moisture content.

The cost price of equipment to produce 10 T/day of furfural would be of 200.000.000 It.Lire (that is 300;000 $) in Italy, not enclosing steam production.

Herewith enclosed are some preliminary data on the foreseen cost of furfural production.

Here are ~~xxx~~ accounted neither the cost of plant and production of steam from combustion of corncobs residues, after furfural extraction, nor water cost. In the case that steam is produced at an elevated pressure and is utilized to produce electric power, at least 12.000 Kwh/day are available for other purposes and we have foreseen that sale of this electric power would compensate steam production ~~xxx~~ expenses.

I wish to inform you that on first days of September

I should be in New York for the Chemical Congress and I should be pleased to have the opportunity of meeting you.

With best wishes I am

Yours truly

McGRAW-HILL World News

Rome Bureau.

Via Madonna del Riposo 28/16a,
Rome.
January 4 1950

Istituto di Chimica Industriale,
Piazza Leonardo da Vinci,
M I L A N O

Dear Sirs,

Thank you very much for your kind and prompt letter of December 28, in reply to my letter addressed to Prof. Natta.

I shall be quite happy to await Prof. Natta's return, if it is only a matter of a week or two, because unfortunately I do not possess the technical knowledge necessary to summarise the Paper.

Please accept my sincere thanks for your co-operation in this matter.

Yours truly,

Elizabeth Fisher

(Elizabeth Fisher)

McGRAW-HILL World News

Rome Bureau

Via Madonna del Riposo 23/11a,
Roma

February 26 1951

Istituto di Chimica Industriale,
Piazza Leonardo da Vinci,
Milano

Dear Sir,

Referring to my first letter of December 18 and your kind reply of December 28, I am writing to enquire if Professor Natta has returned to Milan, and if so would it be possible for him to accede to the request of the McGraw-Hill trade and technical magazine, Chemical Industry. I am posting by same mail a copy of this weekly magazine which I have on hand.

You will recall that my editor asked if Professor Natta would be kind enough to let us have a brief summary of the paper on a new process for furfural production, which was presented to the International Chemical Congress in Milan last September.

He would also like to know if this process is being used commercially, and where.

Please excuse me for disturbing you again on this matter, and allow me to thank you again for your kind assistance.

Yours sincerely,

Elizabeth Fisher
(Elizabeth Fisher)

23th May 1951

Mrs E.Fisher
V.Madonna del riposo 28/16a
Roma

Dear Mrs Fisher;

I beg to excuse me for not having replied before to your letter of 18th December;as,owing to my numerous works, I had no time.

I enclose herewith the abstact,you requested to me, of the paper I read at the International Chemical Congress held in Milan in september 1950:"G;Natta e F.Beati- A continuous process for the extraction of furfural".

With best regards

Yours sincerely

(Prof.G.Natta)

McGRAW-HILL World News

Rome Bureau

Via Madonna del Riposo 83/16a,
Rome,
May 18 1951

Professor G. Natta,
Institute Politecnico,
Piazza Leonardo da Vinci,
Milano

Dear Professor Natta,

I am enclosing a copy of a letter I addressed to you on December 18 1950. To this I had a kind, and very prompt reply dated 23rd December, signed by "Francesca Pisani" advising me you were out of Milan. I wrote again on January 4 and February 26 enquiring if you had returned, but have received no answer.

My editors have asked me again if there is any chance of having this material made available for publication.

Would you be kind enough to let me know how things stand?

Yours sincerely,

Elizabeth Fisher

(Elizabeth Fisher)

McGRAW-HILL World News

Via Madonna del Riposo 88/16a,
Rome Italy,
August 31 1951

Professor G. Natta,
Instituto di Chimica Industriale,
Politecnico,
Piazza Leonardo da Vinci,
Milano

Dear Professor Natta,

I wish to thank you for your very kind letter of May 23, with which you enclosed a synthesis of the paper you read at the International Chemical Congress in Milan last September.

I have posted you today a copy of our "Chemical Engineer", a monthly, with a reference to this process for extracting furfural, and enclose a copy of the longer story carried in the June 16 copy of "Chemical Week." A reader of this latter magazine has written to my head office, asking if we could tell him where this process is being operated in Italy; he says he is interested in the nature of the carbonaceous material discharging from this process...Would it be usable as a form of charcoal?

If this information is available, would you kindly let me know, so that I can inform New York? Please accept my thanks in advance.

Yours sincerely,

Elizabeth Fisher

(Elizabeth Fisher)

(Tessera No. 781 – Associazione della Stampa Estera in Italia)

"Copy"

McGRAW-HILL World News

"Copy"

"Chemical Week" June 16, 1951 -- Page 23 - 24

CONTINUOUS FURFURAL

Employing hydrochloric acid instead of sulfuric acid as the hydrolysis catalyst, furfural can now be prepared by a continuous process. Higher yields of furfural from pentose-containing materials than those obtained by the present process are claimed by the developers of the process, Prof. G. Natta and E. Beati of the University of Milan.

Uses a Column: A hollow vertical column is the heart of the new process. Hydrochloric acid-treated (2-4%) pentose-containing material such as corn cobs or rice hulls are introduced at the top of the column while superheated steam (250-300 C) is injected at the bottom. The superheat of the steam is sufficient to provide a dry residue as it flows from the bottom of the tower. This acid-free residue can be burned under the boilers for steam-raising, sufficient to cover the steam requirements for the operation of the plant.

Rectification within the column provides a higher concentration of hydrochloric acid in the center of the colum and with this almost complete conversion of the pentoses to furfural.

Acid Frees: Solid materialissuing from the bottom of the column is acid-free. The hydrochloric acid goes overhead with the vapors of furfural and acetic acid. Partial condensation (about 10%) produces a condensate with most of the hydrochloric acid for re-use. The acid in the remaining vapors is neutralized with limestone.

Acetic Acid Also: Acetic acid is formed along with the furfural and production can reach 8% of the material treated. The acetic acid yield is said to vary directly with the quantity of superheated steam introduced.

Based on pilot plant data (two tons of raw material per day) Natta and Beati claim furfural yields of 8-10% with rice husks and 12-16% with corn cobs, by weight.

October 17 1951

Mrs. Elizabeth Fisher
Via Madonna del Riposo 88/16a
Rome

Dear Madam,

Please excuse me replying to your letter of August 31 but now, as I have been long time off from Milan.

As for that your reader asked about our processing for furfural production, You can reply that pilot plant which studied our processing was operating at Colleferro (Italy) by the plant of the Anonimi Prodi Selfina Company of Rom.

The semi-vegetal material discharge I we from this process is used as combustible and is sufficient to cover the steam requirements for the operation of the plant.

With best regards

Yours Faithfully

(Prof. G. Natta)

22_8-1951

Dear Professor Mark;

I have beeing hoping to come to New York for the International Congress of Chemistry, but I have not granted the visa yet from the American Consulate and I can not explain the reason, beeing not a comunist, not a political man and beeing not interested in atomic physic.

I think that the Consul of Milan, Miss Kelley, believes that having beeing Professor if Physical Chemistry in Rome I had to deal with the atomicphysic.

I should officially represent at the Congress the Italien Research Council, which has given to me a million lire for the travel and I am member of the Commission on Physicochemocal Standards of the International Union of Chemistry.

Mr. Harry Fisher wires now that State Departement is working on my case. If you also have any possibility to speed the matter I should be very greatful to you.

In case I could not have the visa in time for the Congress I hope you would be so kind to read the paper I sent to your section.

If you remember, in 1938 at the Congress of Rome Iread your paper because you could not come.

I thank you very much if you can do the samething for me.

With my best regards yours sincerely

Ceing

20 Settembre 1951

Prof.Peter Hohenstein
Professor of Polymer Chemistry
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2.New York

zm/ Politecnico

Caro Prof. Hhenstein ,

La ringrazio per la Sua gentile lettera del 14 settembre e La prego ringraziare il Prof.Mark per il suo interessamento per il mio visto .

Se Lei avrà occasione di venire in Italia avrò piacere di vederLa . Una Sua conferenza alla Soc.Chimica a Milano sulmaterie plastiche,ad es. sulle resine stiroliche,potrà essere molto gradita.

Per quanto riguarda il polistirolo la Soc.Montecatini ha aumentato la sua produzione con il procedimento di polimerizzazione continua in blocco che ha molto perfezionato,

Tale procedimento che non richiede catalizzatori e che fornisce direttamente all'uscita dal polimerizzatore il prodotto finito nelle dimensioni volute,risulta estremamente economico e poichè il prodotto soddisfa i consumatori ,la Montecatini non ha per ora in programma di adottare il processo di polimerizzazione in perle.

La Montecatini potrà produrre almeno 4000 t di polistirolo all'anno. Forse in seguito potrà interessare la polimerizzazic in perle,che risulterebbe più costosa come impianto e come esercizio, lo se essa permetterà di produrre un polimero a caratteristiche molto migliori che possa essere richiesto per usi speciali.

La pregherei perciò di comunicarmi quali sono le caratteristiche dei migliori prodotti ottenibili in perle,ed il costo di impianto e di esercizio (costo di energia, reattivi chimici, mano d' pera,ecc.) per un piccolo impianto che produca ad es. 500 t/anno di prodotti speciali .

Sperando di vederLa presto in Italia Le invio i più cordiali saluti

(Prof. G.Natta)

TELEGRAMMA VIA ITALCABLE

Estremi di ricevimento

LOD

307 NR 55 USGOVT WASHINGTON DC
20/18 16 1126 A ITC =

PROFESSOR GIULIO NATTA
MILANO - VIA MARIO
PAGANO 54 MILANO =

752

TF46308

America

SEND ABSTRACT FOR CONGRESS IMMEDIATELY LETTER
FOLLOWING = H L FISHER =

ITALCABLE 16 APR 1951 MILANO

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

September 14, 1951

Prof. Giulio Natta
Polytechnic Institute of Milan
Piazza Leonardo da Vinci
Milano, Italy

My dear Professor Natta,

I cannot tell you how very sorry I was to hear that you were unable to attend the Conferences of the American Chemical Society as well as the International Congress in New York. Your visit to New York was an occasion to which I looked forward very much and I hoped to be able to reciprocate your splendid hospitality which you have always shown me on my stays in Milan. Let me assure you many of us feel badly about the way foreign scientists were treated, and in order to show you how the press reacted to some of these cases, I enclose herewith an article which appeared in one of the leading New York City newspapers. You see that you are in very good company, and from the article it appears that your inability to obtain a visa was merely a matter of unnecessary and complicated bureaucratic procedures. Your absence during the discussions was certainly a loss to everybody concerned.

I returned from India only two weeks ago and despite the fact that I have been out of my office now for almost a year, I have to leave New York again for Europe. To be precise, I am leaving on October 6th and shall stay in London and Paris until about the end of October. I then intend to go to Geneva, but I do not know whether my time will permit me to continue on to Italy; the more so, because I do not know whether a visit to Milano would serve any purpose, having no idea what the Montecatinni plans are with respect to polystyrene production. In fact, I would be most grateful if you would inform me in a few words about the present situation with regard to polystyrene, and I do understand, of course, that you may not be able to tell me the full story because of your commitments.

The Congress here was a monster affair - - with 18,000 chemists assembled. I had the pleasure of meeting many friends.

September 14, 1951

Prof. Giulio Natta

from Italy, among them Professor Nasini, who I am sure will give you more details.

Once again let me assure you that I regret very much that we were not able to meet here in New York. I hope that Mrs. Natta and you had a nice Summer and are in good health.

With kindest personal regards to your wife and yourself, I remain

Most sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

Enc.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

October 2, 1951

Prof. G. Natta
Politecnico
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta,

Thank you for your kind letter of September 20th, I have as yet not been able to fix a definite travel itinerary for my trip to Europe; all that has been established so far is that I leave New York on October 17th. I shall of course be very happy to come to Milano to give a lecture at the Chemical Society if I can at all arrange my schedule accordingly. However, I already know that I won't have very much time, because after my long absence from New York I am eager to cut this European trip as short as possible.

I appreciate the information with regard to the Montecatini polystyrene. Since you tell me that Montecatini is able to produce about 4,000 tons polystyrene per year following a block polymerization method (which they have found to be satisfactory), there seems to be no further reason for me to attempt to sell them the idea of pearl polymerization at the present time. It may be that they will be interested later, when they find out that they cannot make copolymers with the block polymerization method and have to turn to either emulsion polymerization or pearl polymerization.

More than ever I am convinced that Italy is a good field for polystyrene and I would have no hesitation in opening another polystyrene plant of my own, with a capacity for 1000 to 2000 tons yearly, if I only could get the monomer. What I would like to know is whether the monostyrene production of Montecatini exceeds their polystyrene production capacity; in other words, whether they would be willing to sell me 1000 or 2000 tons of monostyrene per year. I would be most grateful if you could find that out for me by talking to Mr. Guistiniani. I would invest all American capital in such a plant, or would share half and half with Italian capitalists.

I recently had the pleasure of dining with Prof. and Mrs. Nasini and we talked a lot about Mrs. Natta and yourself, regretting the fact that you were not with us. I presume that you will see Professor Nasini soon after his arrival in Italy and he wi

October 2, 1951

tell you about the impressions he got from America.

Once more let me assure you that I shall be very happy if I am able to include a visit to Milano as well as to Turino in my travel plans to Italy on this trip. However, if by mischance I should not be able to come this time, I certainly will do so next Summer, at which time I plan a trip to Europe for a duration of at least ten weeks.

With kindest personal regards,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

11th october 1951

Mr Paul H. Emmett
119 Yorkshire Road
Pittsburgh 6, Pennsylvania

Dear Mr Emmett,

I am in receipt of your kind letter of 1st October 1951. I thank you for your proposal of my contributing one or two chapters of the book on catalysis, which will be published by the Reinhold Publishing Company of New York.

I should cover the subject of methanol synthesis from carbon monoxide and hydrogen, whose industrial apparatus details I do know also. Of course, because of the nature of the work, as you have explained to me, I shall center attention, from a critical standpoint, on the catalytic aspects of the reactions and on the nature of the catalysts. I should like to know if you think it useful to discuss each reaction from a thermodynamic standpoint also.

As to higher alcohols, I should limit my work to covering the processes of production of higher alcohols by high pressures (greater than 100 atm.) and high temperatures (higher than 350°); that is under similar conditions as that used in methanol synthesis. I suppose I have not to cover the synthesis of higher alcohols that, in some conditions, is carried out in same time as hydrocarbon synthesis, by means of the Fischer-Tropsch processing.

I know well the production of higher alcohols by hydrogenation of acids and also the selective hydrogenation of carboxyl group without reducing the double bond of unsaturated acids.

Furthermore, there is a subject I am interested in since many years, that is the aldehyde synthesis (oxosynthesis) from olefinic compounds, carbon monoxide and hydrogen. In the case that you are still in search of an author to cover this subject, I could cover it in collaboration with my assistant Ir Pino. As to hydrogenation of acids to higher alcohols, my collaborator would be Prof. Spilardi.

I might develop all these works and send you the manuscripts within September 1952.

With kindest regards, I am

Yours faithfully

October 1,1951.

Dr. G. Natta,
Institute of Chemical Industry,
Milan, Italy.

Dear Dr. Natta:

I am at the present time in search of an author to write a critical, comprehensive review of the catalytic work that has been done in the field of methanol synthesis and higher alcohol synthesis. In view of the pioneering work that you did in these two fields, it occurred to me that you might be interested in contributing one or two chapters covering these subjects. I am accordingly writing you this letter and shall explain the general project upon which I am working and to which these chapters would be a contribution.

Some time ago I agreed to edit a series of five or more books to cover the entire field of catalysis. These books will be published by the Reinhold Publishing Company of New York City. One volume will be devoted to the fundamentals of catalysis;other volumes will be devoted to hydrogenolysis, hydrogenation, synthesis reactions, catalytic oxidation, hydration, dehydration,hydrocarbon cracking, alkylation, isomerization, cyclization, etc.. Naturally it has been impossible to find any one individual who would undertake a very large fraction of the writing. It has been necessary therefore, to have a number of authors for each volume. The chapters on methanol synthesis and on higher alcohol synthesis would be included in the volumes relating to hydrogenation or hydrogenolysis.

As mentioned above, these various chapters are supposed to constitute comprehensive and critical reviews of all of the work that has been published on the catalytic aspects of various reactions. Little attention will be given to industrial details or to the question of the type of apparatus used in industrial processes. Attention will be centered on the catalysts and the catalytic processes,including not only the factual matter in regard to the catalysts that are used, but ideas and theories that have been advanced to explain the nature of the catalytic reaction or to account for the particular activity of certain catalysts. It is especially important that the individual writing these chapters should be somebody who has had first hand information and experience with respect to the particular topic that he is covering. It seems to me that your early work in methanol synthesis and in higher alcohol synthesis adequately fits you for covering these subjects. I am very hopeful,therefore, that you will be able to find the time to undertake the writing of these chapters for me.

I am hoping to have the manuscripts for the

various chapters that are to be covered in this series of books in hand by the summer of 1952. The Reinhold Publishing Company plans to pay a flat ten per cent royalty to the various authors distributed on the basis of the relative number of pages contributed by each. Although I realize that such royalties do not fully compensate one for the time and effort involved, in such writing, I hope that they will at least partially reimburse you for the efforts that would be involved.

Since I have not had the pleasure of meeting you and talking to you I am not sure as to how readily you speak and write English. However, Professor Taylor of Princeton University has very kindly suggested that in the event that you wish to write these chapters in Italian, he will be very glad to have the chapters translated by some of the Italian students who are at present doing graduate work at the University of Princeton. Accordingly, manuscripts either in Italian or in English would be quite acceptable.

I had hoped to see you at the recent International Congress in New York, but noted that you were not able to make the trip. I am therefore taking this means of learning as quickly as possible whether or not it will be possible for you to undertake the writing of these chapters. You realize, of course, that if you wish to have an assistant collaborate with you in the work, it will be perfectly all right for the contributions to be made jointly by you and an assistant of your own choosing. I shall be hoping to receive a favorable reply from you.

With kindest personal regards, I am

Very sincerely yours,

Paul H. Emmett

Paul H. Emmett.

115 YORKSHIRE ROAD

PITTSBURGH 8, PENNSYLVANIA

January 20,1952.

Professor Giulio Natta,
Ordinario di Chimica Industriale,
Milan, Italy.

Dear Professor Natta:

You will recall that when I wrote to you on January 7th in regard to the proposed outline for your chapters on methanol synthesis and higher alcohol synthesis, I agreed to contact you again as soon as I had talked with Dr. Orchin in regard to the material that he plans to cover in the chapters that he is going to write for me. I have now talked with Dr. Orchin and have discussed with him the particular material that he will include in his chapter on oxo-synthesis.

On discussing with him the various items that you mentioned in the second paragraph of your letter of November 12th, I find that these were all topics that he had planned to include in the second of his chapters on the General Reactions of Carbon Monoxide with Other Molecules. However, he has not,himself carried out any experimental work on the particular topics that you mentioned in said paragraph. He accordingly made the suggestion that you and he and your respective collaborators cover this material in a joint chapter of joint authorship. He suggests that you cover all of the material upon which as you mention in your letter of November 12th,you and your associates have been working relative to (1)esters of ~~type~~ dicarboxylic acids from olefins or acetylene,carbon monoxide and alcohols;(2)amides from olefins,carbon monoxide and ammonia; (3) acids from carbon monoxide and alcohols and (4) acids from olefins, carbon monoxide and water. In the meantime, he and his collaborators will work up all of the other miscellaneous reactions involving carbon monoxide that have appeared in the literature. When you send over your contribution to this subject, he will then combine it with their own to make a joint chapter. In this way, you will have a chance to cover all of the topics upon which you have actively worked in this field and at the same time, he will have an opportunity to include all of the miscellaneous reactions of carbon monoxide that appear pertinent but upon which neither of you have worked.

If this is satisfactory to you, you might drop me a line by way of confirming your plans to cover the above listed items from the second paragraph of your letter of November 12th. I shall then have Dr. Orchin go ahead and cover other miscellaneous topics of related reactions involved in carbon monoxide and shall have him plan to combine his material with yours into a single chapter on the subject as soon as you send it to him.

The general remarks that I made to you in regard to your chapters on methanol and higher alcohol synthesis would of course also apply to this material. We are interested especially in the factual matter relative to the activities of

catalysts, etc. in carrying on these various reactions and also any ideas that you have as regards the mechanism by which the reactions probably proceed.

One other item has occurred to me that I thought you perhaps might want to cover in your chapter on the synthesis of higher alcohols. I refer to the synthesis of isoparaffins as related in the work of Pichler and carried out during the war in Germany. I am sure that you are familiar with his work in which he used catalysts such as thorium oxide to build up relatively high conversions to C_4 and C_5 isoparaffins by applying high pressures of carbon monoxide and hydrogen at temperatures very similar to those employed in higher alcohol synthesis. It occurred to me that coverage of the one or two papers or reports on this work of Pichler might fall more logically in your chapter on higher alcohols than in some of the other chapters that I am having written in this country on Fischer-Tropsch synthesis and the production of synthetic fuels. I would appreciate your letting me know your wishes in this matter because I can have it covered by either group, though the people who are covering the Fischer-Tropsch work for me suggested that you probably may have had some contact with this work or at least are very familiar with its details, and might want to cover it in your chapter on higher alcohols.

With kindest personal regards, I am

Sincerely yours,

Paul H. Emmett

Paul H. Emmett.

12th November 1951

Mr. Paul H. Emmett
115 Yorkshire Road
Pittsburgh 8, Pennsylvania

Dear Mr. Emmett,

I am glad to hear from your letter of October 22 that my interpretation of the higher alcohol synthesis is in accord with your plans for the work. I am learning from you that the work on oxosynthesis is being covered by Ir. Orchin. I am sure that Ir. Orchin will do a very satisfactory job.

Among the reactions with carbon monoxide, that we are studying actively at present, I think that synthesis of esters of dicarboxylic acids from olefins or acetylene, carbon monoxide and alcohols, as well as synthesis of amides from olefins, carbon monoxide and ammonia, is worth being touched. Another subject which has to be covered briefly is the acid synthesis from alcohols and carbon monoxide (e.g. acetic acid from methanol) and the synthesis of acids from olefins, carbon monoxide and water.

As to the general work on preferential hydrogenation of various types of bonds, it is indeed a very big and complex subject, and nor I neither my associates certainly should have sufficient time to develop it in a complete way. I do not believe that in Italy there may be an individual who can develop such a work by the time you indicat

As to the number of pages that will be involved in covering the methanol and higher alcohol synthesis, I will communicate it you in a near future. I should like to know the outline of the other subjects, as other authors will plan to cover them in their chapters, so that my contribution can result proportionate to the complete work.

I estimate that methanol synthesis would involve at least 40-50 pages, fatty acids hydrogenatio n to alcohols at least 15 pages. Of course, these subjects can be more developed and therefore I would like to know what is the greater number of pages allowed.

The methanol and higher alcohol synthesis will cover the following arguments:

"Thermodynamic discussion and comparison with other parallel and consecutive reactions.

Kinetics of methanol synthesis reaction (bimolecular reacti

Selective catalysts - Promoter effect - Promoters in solid solution (homogeneous catalysts) - Promoters in mixed catalysts (heterogeneous catalysts).

Relation between catalytic activity and activated adsorptio

(Relation between catalytic activity in direct and reverse reactions)

Poisons : Ferrocarbonyl and its removal - Sulphur, etc.

Consecutive reactions. Dimetylether formation, etc.

(Dimensioning reaction vessels and surface of heat exchanger on the basis of kinetic data).

Synthesis of higher alcohols - Chemical mechanism - Intermediate compounds - Effect of CO/H_2 ratio - Nature of catalysts - poisoning and regenerating catalysts.

Parallel anxd consecutive reactions.

Methanol recirculation
(Aldehyde and ketone removal)
(Depuration and separation of higher alchhols)"

As to the hydrogenation of free acids and esters to higher alcohols, I would cover the following arguments:

"Thermodynamic discussion.
Kinetics data.
Selective catalysts for carboxylic group (without reducing the double bond of unsaturated acids).
Batch and continuous processes with fixed or suspended catalysts.
Concurrent and countercurrent processes.
Hydrogenation of free acids.
Hydrogenation of esters and their preparation by inter-esterification.
(Alcohol depuration).
Poisons."

Please kindly let me know wether arguments in ~~fix~~ parentheses can be developed or are far ~~fmm~~ the nature of the book, as, for example, the question, very important from the practical standpoint, of the purification of gaseous mixtures from impurities inhibiting catalysis (by catalyzing secondary reactions or by poisoning the catalysts Another important question is the removal of the reaction heat, so that reaction can be carried out as isothermically as possible. But this question has a carachter more technological than chemical, although it is d termining the chemical process yields by avoiding secondary reactions. The reverse reaction of methanol synthesis, that is methanol decomposition, has been object of study from many authors and I would think to touch it only briefly, as results of that researches do not permit to deduce serious previsions on the direct reaction.

I would be very grateful to you, will you kindly give me some suggestions on work planning.

With kindest regards, I am

Yours faithfully

October 22,1951.

Professor Giulio Natta,
Ordinario di Chimica Industriale,
Milan, Italy.

Dear Professor Natta:

I was delighted to learn from your letter of October 11th that you will be willing to undertake the covering of the work on the catalytic hydrogenation of carbon monoxide to form methanol and higher alcohol synthesis. I feel sure that you will do a very satisfactory job and hope that you will enjoy this opportunity to write up the work with which you have been connected so long.

Your interpretation of the higher alcohol synthesis is in accord with my plans for the work. I would like you to cover the synthesis of methanol and also the synthesis of higher alcohols at pressures above 100 atmospheres and temperatures higher than 350° centigrade. In other words, you will be covering the regular 'higher alcohol synthesis' such as you have described in a number of your earlier papers. It would also be very desirable to include the work that you mentioned on the hydrogenation of acids to form higher alcohols and also on the selective hydrogenation of carboxyl groups without reducing the double bond of unsaturated acids. On the other hand, the work on oxo-synthesis is being covered by Dr. Orchin of the Bureau of Mines, here in Pittsburgh. He has done extensive research in this field and will, I believe, do a satisfactory job, of covering the aldehyde synthesis or oxo-synthesis work from olefinic compounds, carbon monoxide and hydrogen.

There may be a little over-lapping on the part of your work concerned with the preferential hydrogenation of carboxyl groups without reducing the double bond of unsaturated acids.The over-lap will be with the individual who is covering the general field of the addition of hydrogen to various types of bonds, including carbon-carbon double bonds,carbon-oxygen bonds, carbon-nitrogen bonds etc. As a matter of fact, I have not yet succeeded in obtaining an individual to cover this general work on hydrogenation. It is a very big assignment,because it will cover most of the work that is given in books such as the early book by Sabatier, and also will cover most of the work of the type that is given in the book by Adkins. I think I have a line on a man who is going to be working in Professor Taylor's laboratory in Princeton this year. However, if you have any suggestions,or if you know of anyone in Italy, or if possibly you or some of your associates have done sufficient work in this field and have sufficient time, to be able to undertake the writing of the general work on the addition of hydrogen to various types of bonds, Iwould greatly appreciate getting any suggestions that you may have.

I have been hoping to have most of the chapters for the various volumes in my hands by July 1,1952.However, I feel certain that there will be a number of chapters that are not completed by that time,and would be perfectly satisfied if your chapters on methanol synthesis and higher alcohols synthesis are in my hands by September 1952. It would be very helpful to me if,

in the near future, you would make a brief outline of the work as you would plan to cover it in your chapters. I have found that these outlines are very helpful in trying to produce a co-ordinated presentation of all of the catalytic work, without too much duplication on the part of the various authors. Actually, I do not anticipate very much duplication in the field of methanol and higher alcohol synthesis because these subjects are set aside by themselves and are not likely to be even mentioned by any others contributing to the various volumes on catalysis.

You asked in your letter about the propriety of including thermodynamic discussions in the consideration of methanol synthesis and higher alcohol synthesis. I certainly think that mention of the thermodynamics of the reactions in the sense of the equilibrium constants, free energy changes, etc., would be very appropriate. I would suggest, however, that you limit such discussion to the final accepted values for these various thermodynamic quantities, and that you should not go back and include a history of the thermodynamics of the methanol reaction. As you probably are well aware, some of the early calculations on the methanol equilibrium were considerably in error and diverged from the experimental values that were actually obtained. If, at the time you send the outline to me, you can also make some kind of a guess as to the probable number of double spaced, typed pages that will be involved in covering the methanol and higher alcohol work, it will be very helpful to me. I have made such guesses myself, but like, in each instance, to check my estimate against the estimates of the individuals who are actually writing the chapters.

With kindest personal regards, and sincere thanks for being willing to undertake this work, I am

Sincerely yours,

Paul H. Emmett

Paul H. Emmett.

TO THE AUTHORS OF CHAPTERS FOR THE REINHOLD SERIES ON CATALYSIS:

This letter is being sent out with the two-fold purpose of

(1) serving as a reminder that it is only eight months to the date (June 15,1952) by which time I hope most of the chapters will be completed and in my hands, and
(2) suggesting that all of you, if you have not already done so, should send me an outline of your proposed contributions. Such outlines will be helpful in avoiding unnecessary duplication among the various authors.

The total manuscript pages for the four volumes that we hope will be completed by next June, will probably total about 3,000 standard, double-spaced typed pages. You may be sure, therefore, that I shall be very glad to receive your manuscripts at as early a date as possible in order to spread my editorial work over a longer period of time.

Sincerely yours,

Paul H. Emmett

Paul H. Emmett.

115 Yorkshire Road
Pittsburgh 8, Pennsylvania

AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EXECUTIVE SECRETARY

ALDEN H. EMERY
EXECUTIVE SECRETARY
REPUBLIC 5300

WASHINGTON 6, D.C.
1155 SIXTEENTH ST., N.W.

October 5, 1951

Dear Member:

It was a great pleasure to meet so many of you during the sessions of the International Chemical Conclave. We wish that more could have been present. The Society was greatly pleased by the many gracious tributes from its sister organizations and from the general public which were received.

Fortunately, the editors of CHEMICAL AND ENGINEERING NEWS compiled and presented an account of the many activities and special events. Even those who were present will find much to interest them in these issues since no individual could possibly see and hear everything on the programs.

As the year draws to its close, the time arrives for meeting the financial obligations of membership. The enclosed bill, based on your 1951 orders, should be returned with your remittance. Any desired changes in journal subscriptions may be indicated on the bill.

We are glad to report that there is but one change in our 1952 charges from those in effect in 1951. The JOURNAL OF THE AMERICAN CHEMICAL SOCIETY must print so many papers that it is necessary to increase the number of issues from 12 to 24 annually. With this expansion, the annual subscription price to members will be $7.00 in 1952, an increase of $1.00.

One other change may be of importance to you. The JOURNAL OF PHYSICAL AND COLLOID CHEMISTRY, formerly published by Williams and Wilkins in Baltimore, Maryland, will be published by the Society in 1952 as the JOURNAL OF PHYSICAL CHEMISTRY. The subscription price will be $8.00 per year to members of the ACS plus $1.20 for overseas postage ($0.40 in Canada). Orders should be sent to this office.

We hope that you will take advantage of this early notification and make arrangements promptly to obtain the necessary exchange in order that there may be no interruption in the receipt of your journals.

We look forward to a continuance of our relationships as fellow members of the Society. If that is not possible, your resignation must be received in this office before December 31, 1951.

Cordially yours,

Alden H. Emery

Alden H. Emery
Executive Secretary

AHE:td
Enclosure

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF GEOLOGY
CAMBRIDGE 39, MASSACHUSETTS

April 16, 1951

Prof. G. Nalto, Direttore
Instituto de Chimico Generale
R. Universita
Pavia, Italy

Dear Professor Nalto:

I expect to attend the Stockholm Congress of the International Crystallographic Union this summer and before doing so, I plan to visit some of the universities in northern Italy. It is my hope that sometime during the week of May 14, I will be able to pay you a brief visit. If you would find my visit to you during this week inconvenient, I would be pleased to have you let me know. Meanwhile, I look forward to paying you a brief visit during that time.

Sincerely yours,

M. J. Buerger

M. J. Buerger

MJB/R

April 21, 1951

Dear Mr.Buerger,

Massachusetts Institute of Technology
Department of Geology

Cambridge 39, Massachusetts

The University of Pavia has received a letter of yours dated April 16 th, adressed to Prof.G.Nalto. As there is no Prof.G.Nalto, nor at Pavia neither in any other Italian University, and as I have been Professor at the Institute of General Chemistry of the Pavia University befor 1936, this letter has been transmitted to me.

As for me, I shall be pleased to make your knowledge, if you will come to Milano.

Sincerely yours

(Prof.G.Natta)

USA 1952

M. M. ROSTEN

50 East 78th Street
New York 21, N. Y.
U. S. A.
April 8, 1952.

Air Mail

Professor Giulio Natta
Politechnico di Milano
Piazza Leonardo da Vinci, 32
Milano, Lombardia, Italy

Dear Professor,

Mrs. Rosten and I plan to leave for Europe next week. We shall be staying in Paris at least until the end of this month, and we plan to stop at the Hotel Scribe (Paris, 8, France).

We are also planning to visit Italy and we are looking forward, with a great deal of pleasure, to seeing you and Mrs. Natta.

With kindest personal regards to you and to Mrs. Natta, and with best wishes for a pleasant Easter Season,

Sincerely yours,

M. M. Rosten

MMR:EA

AIR REDUCTION COMPANY
INCORPORATED
RESEARCH AND ENGINEERING DEPARTMENT
RESEARCH LABORATORIES
MURRAY HILL, New Jersey, U.S.A.

21 February 52

Dr. G. Natta
Instituto de Chimica Industriale
Milan
Italy

Dear Dr. Natta:

Please send me two reprints of your paper "The Synthesis of Esters by the Reaction of Olefins, Carbon Monoxide, and Alcohols", Gazz.chim.ital. 80, 680-701(1950), if any are still available, and also reprints of any earlier reports of the material presented in your paper at the XIIth International Congress of Pure and Applied Chemistry in New York in September 1951.

Send to the attention of the undersigned.

Very truly yours,

F E McKenna

F. E. McKenna
Senior Chemist

FEMcK:on

AIR MAIL

JEFFERSON CHEMICAL COMPANY, INC.
711 FIFTH AVENUE
NEW YORK 22, N. Y.

AIR MAIL

March 14, 1952

Professor Guilio Natta
Polytechnico di Milano
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

As Mr. H. V. Atwell of The Texas Company wrote you on February 29, Mr. P. M. Dinkins and I plan to be in Europe this spring and will be in Milan for a few days during the early part of May. If it is convenient to you, we would like to visit with you and your associates on the morning of Friday, May 9. From what Mr. Atwell has told us concerning the activities of Polytechnico di Milano, we should have considerable of mutual interest to discuss.

As you may know, our company is jointly owned by The Texas Company and American Cyanamid Company, and we are engaged in the manufacture of ethylene oxide, ethylene glycol and ethanolamines at our plant in Texas. Our general field of interest lies in the production of chemicals from petroleum or petroleum-derived raw materials, and we hope to add considerably to our list of products within the next few years.

Mr. Dinkins and I plan to sail for Europe on March 22, and after that date mail addressed to us in care of Cyanamid Products Ltd., Bush House, Aldwych, London, W.C. 2, England, will be forwarded to us en route.

Very truly yours,

Max Neuhaus
Vice President

BCR:ij

Jefferson
CHEMICAL COMPANY, INC. 260 Madison Avenue • New York 16, N. Y. • Murray Hill 6-7700

June 20, 1952

Professor Guilio Natta, Director
Institute of Industrial Chemistry
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

At the request of Dr. M. Neuhaus, Vice President of our company we are pleased to forward you a five pound sample (No. 377) of ethylene carbonate from our Austin laboratory. We are also enclosing a technical bulletin on ethylene carbonate.

If we may be of further assistance, please get in touch with us.

Cordially yours,

S. D. Koonce

S. D. Koonce
Market Development Manager

SDK/dm

Enclosure

JEFFERSON CHEMICAL COMPANY, INC.
711 FIFTH AVENUE
NEW YORK 22, N. Y.

Paris
April 8, 1952

Professor G. Natta
Instituto di Chimica Industriale
Politecnico
Milano
Piazza Leonardo da Vinci 32
Italy.

Dear Professor Natta

Thank you very much for your letter of March 20 which was forwarded to me in Paris. I am glad to hear that you will probably be in Milan on May 9 and Mrs. Dinkins and I are looking forward to seeing you then.

With best personal regards

Sincerely yours

Max Mintz

April 19,1952

Mr.M.M.Rosten
Hotel Scribe
Paris 8,France

Dear Mr.Rosten,

I am in receipt of your letter of April 8. I am very glad to hear that you and Mrs. Rosten have planned to come to come to Italy. My wife and I are looking forward with a great deal of pleasure to seeing you and Mrs. Rosten.

Let me know when you are planning to come to Milan.

With best personal regards,I am

Yours faithfully

(Prof.G.Natta)

March 21 1952

Politecnico

Mr. F. E. McKenna
Senior Chemist
Air Reduction Company
Research and Engineering Departmen
Murray Hill=New Jersey,U.S.A.

Dear Mr. McKenna,

please excuse me if I have delayed in replying to your request of reports on oxosynthesis.

Under separate cover,by oversea mail,I am sending you the reprints of the paper "The synthesis of esters by the reaction of olefins,carbon monoxide and alcohols" and some other papers,published in these last years. The reprints of the older papers are no more available.

With best regards

Yours sincerely
(Prof.G.Natta)

March 20,1952

Politecnico

Mr.Max Neuhaus
Vice Presidente
Jefferson Chemical Co.,Ind.
711 Fifth Avenue
New York 22,N.Y.

Dear Mr. Neuhaus;

Mr. W.V.Atwell had already informed me about your visit. I should be very glad to make your knowledge and to see you Milan.

I think I will be in Milan on May 9. From 18 to 25 May I shall go to the Congress of the Achema in Frankfurt,where I'll read a paper,relating to continuous isothermic processes for fractionating gaseous mixtures.

With best personal regards

Yours sincerely

(Prof.G.Natta)

PICCOUMARON PICCOLYTE PICCOCIZER PICCO PRODUCTS

PENNSYLVANIA INDUSTRIAL CHEMICAL CORPORATION

CHESTER, PENNA.
Research Laboratory

November 4, 1952

Dr. G. Natta
Istituto Di Chimica
Industriale Politechnico of Milano
Milano, Italy

Dear Dr. Natta:

We have just received a copy of your paper which we had requested. Thank you very much for your courtesy in this matter.

Very truly yours,

PENNSYLVANIA INDUSTRIAL CHEMICAL CORP.

William J. Roberts
Assistant Director

WJR:jgs

FOREST INSECT LABORATORY
SAULT STE. MARIE, ONTARIO

ONTARIO
DEPARTMENT OF LANDS AND FORESTS

CANADA
DEPARTMENT OF AGRICULTURE

April 24, 1952 FILE No. 904

Dr. G. Natta,
Institute of Industrial Chemistry,
University of Milan,
Italy.

Dear Dr. Natta:

If copies are still available, we should appreciate 2 reprints of your paper "Quelques observations sur le rôle des réactions dans l'état solide dans la formation et le vieillissement des catalyseurs" in Bull. soc. chim. France, 1949: D. 161-D. 166, for our library and C. Holoway.

With thanks,

Yours very truly,

for M. L. Prebble
Officer-in-Charge

PRI LUMO3/ITZ10 NEWYORK 53 9 2317 CTF CK51 =

128

PER LA RISPOSTA TELEFONATE AL **N. 88.38**

1952 NOV 10 AM 10 24

LT RP12.50 PROFESSOR JULIO

ATTA POLYITECHNICUM MILAN =

P.L. DA VINCI 32 292107

292125

TELEGRAMMA via Italcable via ItaloRadio

DOLA ERI

ALLEGATO

ELENCO R.P.

N. 11/32553

10 NOV. 952

MILANO

SOGGETTO RETTIFICA PAROLE 51-

WE ARE ANXIOUS OBTAIN TRIBUTES FROM LEADING INTERNATIONAL SCIENTISTS TO CHAIM WEIZMANN PRESIDENT WEIZMANN INSTITUTE OF SCIENCE REHOVOTH ISRAEL FOR PUBLICATION HERE WILL YOU PLEASE JOIN THIS WORLDWIDE TRIBUTE IMMEDIATELY CABLING YOUR STATEMENT WEIZINST MANY THANKS =

HAM FEINBERG PRESIDENT AMERICAN COMMITTEE FOR WEIZMANN INSTITUTE

RIFIUTATO PER TELEFONO

ORE 1058 SIGLA FDA

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

December 4, 1952

Dear Member:

As the time for the Stockholm-Uppsala Meeting is approaching, I would like to start correspondence concerning the agenda of the Commission on Macromolecules which is going to meet in Stockholm some time between July 27 and August 3, 1953. As you know, we are having two main areas of activity, each of which is taken care of by a subcommittee.

1) Continuation and extension of Nomenclature in the field of Macromolecules. The Huggins Report has been translated into French by Professor Smets and our french speaking colleagues have accepted the French version with a few minor changes. The German translation of the Huggins report carried out by Professor Kratky is now being studied by a group of our German speaking colleagues and it is very probable that their comments and suggestions will be available at the time of the Stockholm Meeting. Hence, it is proposed that we devote a one-half day session to discuss the report of the Subcommittee on Nomenclature.

2) The Frank Report on the results of the cooperative work on polystyrene fractions will appear within the next few months in the Journal of Polymer Science; it contains the data obtained hitherto. A new and better defined fraction of polystyrene will be sent to a number of the cooperating laboratories early next year and it can be expected that the results of the work with this new sample will be available in a more or less final form at the Meeting. It is therefore proposed to reserve at least a one-half day session for the discussion of these results.

3) Dr. G.M. Kline, Secretary of the Division on Plastics and Polymers in UIPAC has suggested that our Commission arranges for a joint meeting with his group in order to plan and coordinate the work of these two organizations in the future. This seems to be a very good idea and it is suggested to arrange for a one-half day's joint meeting of our Commission with the Division on Plastics and Polymers.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

4) Since our last meeting in New York in September, 1951, work has been started to prepare a list of all laboratories which are carrying out fundamental work in the field of Macromolecules with indications as to the number of scientific workers, special equipment, domains of main interest and plans for the future. A report on the present state of this documentation will be ready for the Stockholm Meeting. It will require another session of 2-3 hours.

As a consequence of the material mentioned above, I have asked Professor Delaby to reserve for our Commission four or five half-day Sessions. It is probable that we shall be able to complete our work in four sessions, but it would seem desirable to have a fifth session in reserve.

At this occasion I would also like to extend to all members, the cordial invitation to bring up any kind of new business and any kind of proposals for new activities of our Commission so that we can work it into our agenda. With five sessions we should have enough time to discuss a number of such suggestions and make it sure that they can be worked into the future activities of the Commission.

I would greatly appreciate it if you would kindly let me have your comments to this preliminary proposal for an agenda of the Stockholm Meeting, and any kind of suggestions you have to make for the organization of our program.

Thanking you, on behalf of the Commission, for all your cooperation, I am, with kindest personal regards and best wishes, as always,

Very sincerely yours,

H. Mark

HM:JB

H. Mark

June 23,1952

Prof.H.Mark
Polytechnici Institute of Brooklyn
99 Livingston Street
Brooklyn 2,New York

Dear Professor Mark,

I am in receipt of your very kind letter of June 16,and am very grateful to you.

It is for me a great pleasure to accept your invitation to cooperate with the Commission on Macromolecules of the International Union of Pure and Applied Chemistry as a National Representative Member for Italy.

Thanking you for the honor accorded to me, I am sending you my best greetings.and wishes.

Yours very sincerely

(G.Natta)

THE JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

Dept. of Chemistry
Univ. of Rochester
Rochester 3, N.Y.

Dr. Giulio Natta
Istituto di Chimica Industriale Politecnico
Piassa L. da Vinci 32
Milano, Italy

Dear Dr. Natta:

Your manuscript entitled "The Distribution of Products in a Series of Consecutive Competitive Reactions" has been accepted for publication and will probably appear in the May or June issue of the Journal.

Sincerely yours,

W. Albert Noyes, Jr.

W. Albert Noyes, Jr.
Editor

P

J. Am. Chem. Soc.
Univ. of Rochester
~~Rochester 3, N.Y. USA~~

ROCHESTER N.Y. FEB 2 1952 PM

AIR MAIL 10¢ U.S. POSTAGE

AIR LETTER

VIA AIR MAIL
PAR AVION

Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico
Piassa L. da Vinci 32
Milano, Italy

MESSAGE MUST ~~APPEAR~~ ON INNER SIDE ONLY
NO TAPE OR STICKER MAY BE ATTACHED
IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

~~ARANCE LIMON~~ MANDARINI

MILANO 24 · II 1952

FIRST FOLD

SECOND FOLD

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

Dept. of Chemistry
Univ. of Rochester
Rochester 3, N.Y.

May 19, 1952

Prof. G. Natta
Istituto di Chimica Industriale Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

Your manuscript entitled "Hydrogen Transfer Reactions Accompanying the Cobalt Catalyzed Addition of Carbon Monoxide to Olefinic Compounds" has been accepted for publication and will probably appear in one of the September issues of the Journal.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG:P

J. Am. Chem. Soc.
Dept. of Chemistry
University of Rochester
Rochester 3, N.Y. USA

ROCHESTER MAY 20 1952 PM N.Y.

AIR LETTER

VIA AIR MAIL
PAR AVION

Prof. G. Natta
Istituto di Chimica Industriale
Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

MESSAGE MUST APPEAR ON INNER SIDE ONLY
NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

THE JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

Dept. of Chemistry
University of Rochester
Rochester 3, N.Y.

February 28, 1952

Prof. G. Natta
Istituto di Chimica Industriale Politecnico
Piassa Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

Your manuscript entitled "The Synthesis of Oxygen-Containing Organic Compounds from Unsaturated Compounds and Carbon Monoxide in Presence of Cobalt Catalysts" has been received. I shall write you of our decision regarding it as soon as possible.

Sincerely yours,

W. Albert Noyes, Jr.

W. Albert Noyes, Jr.
Editor

P

FOLD SIDES OVER AND THEN FOLD BOTTOM UP AND SEAL.
NO OTHER ENVELOPE SHOULD BE USED.

J. Am. Chem. Soc.
Dept. of Chemistry
Univ. of Rochester
Rochester 3, N.Y.

ROCHESTER N.Y. FEB 25 10 PM 1952

AIR LETTER

VIA AIR MAIL
PAR AVION

Prof. G. Natta
Istituto di Chimica Industriale
Politecnico
Piassa Leonardo da Vinci 32
Milano, Italy

MESSAGE MUST APPEAR ON INNER SIDE ONLY
NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. Albert Noyes, Jr., *Editor*
Marshall Gates, *Ass't. Editor*

Department of Chemistry
University of Rochester
Rochester 3, New York

April 10, 1952

Professor G. Natta
Istituto di Chimica Industriale Politecnico
Piassa Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Your manuscript entitled "The Synthesis of Oxygen-Containing Organic Compounds from Unsaturated Compounds and Carbon Monoxide in Presence of Cobalt Catalysts" has now been examined with the aid of reports from two independent referees who are familiar with this field. Copies of the reports of both referees are enclosed.

You will note from the reports that both referees consider the work of high quality and significant and have recommended publication. Our own examination confirms their opinion, but we, like Referee II, believe that the presentation will have to undergo considerable alteration before publication to bring it into the format preferred by this Journal. We are now faced with a very heavy demand for our space and have had to require that authors reduce the amount of review and introductory material in their papers to the minimum which will allow an appraisal of their own contribution by an informed reader, and the application of this principle to your manuscript would dictate that the introductory portion be considerably abbreviated.

You will note that Referee II has gone to the trouble of rewriting the article in a form which meets our requirements, and we should like to urge you to accept his rewritten version. He is a man who has not only worked in this field but has written many articles for our Journal, and we believe his presentation is excellent. You are, of course, at liberty to change his revision as you see fit, but on the whole we feel that his revision should not be departed from too greatly.

The manuscript is returned herewith together with the referee's rewritten version. We shall be glad to have your reply. Please submit duplicate copies of the revised manuscript.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG M

Encls. ms. orig. and cc.
referees' reports and rewritten version

RECONSTRUCTION FINANCE CORPORATION

WASHINGTON 25, D. C.

October 23, 1952

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci
32 - Milano
ITALY

Dear Professor Natta:

I am very glad to hear from you again and to note that you are still interested in some day making another trip to this country. It surely was too bad that you and Mrs. Natta could not come a year ago at the time of the meetings of the International Congress of Pure and Applied Chemistry and the International Union of Pure and Applied Chemistry. I never obtained the full story of why you did not receive your visa in time but I think the chances are that your application was included in the great mass of applications that came to Washington for special treatment because the writers had done something or had been somewhere and these things had placed them under the McCarran Act which required such a procedure. I do not know whether the visa was not given to you or whether the time for giving it to you was too late when your papers had been reviewed. At any rate, if you would like to make a trip to this country and you have not yet received a decision, I understand that it would be all right for you to make another try and reapply for the visa. Also, there is a new McCarran Act which will go into effect December 24, 1952 and possibly this may apply to you.

It is very kind of you to mention in such a pleasant manner my nomination as President-Elect of the American Chemical Society and I assure you of my appreciation. I still regard with great pleasure my trip to Milan where I met you and your friends and I always recall it with much interest.

I hope that there will be no difficulty in your receiving a new visa and that all will go well with you. I am happy to send my kindest regards to Mrs. Natta and yourself.

Sincerely yours,

Harry L. Fisher

Harry L. Fisher
Special Assistant to the Director
of the Office of Synthetic Rubber

HLFisher:jes

May 10 , 1952

M.Marshall Gates
Assistant Editor
Department of Chemistry
University of Rochester
Rochester 3,New York

Lear Mr.Gates,

we are sending you the manuscript of our work:we have entered but little changes on the text suggested by you.

Thank you very much for your kindness and for the advices that you have given to us to permit that our work, written for XXIII International Congress,may become suitable for publication in the Journal of the American Chemical Society.

The extensive revision that has been necessary depends on the fact that the paper had been written for a Congress,and its purpose was such as to let the American people know the work carried out by us in these last years,that is generally known in America with a great delay.

We thought that,in analogy to what is usually being done in Europe,works presented to an important Congress were published in special numeros of the Reviews.

We shall bear in mind your necessities and the particular character of your review in the case that,in future,we shall have other works to publish.

With best regards,I am

Yours faithfully

(Prof.G.Natta)

Encls.: Duplicate copies of the revised manuscript

THE PERMUTIT COMPANY

330 WEST 42nd STREET — NEW YORK 36, N.Y.

CABLE ADDRESS "PERMUTIT"

Water Conditioning

AUTOMATIC AND MANUALLY CONTROLLED EQUIPMENT FOR REMOVAL OF HARDNESS, DIRT, IRON, OIL, TASTE, ODOR AND OTHER TROUBLESOME IMPURITIES FROM WATER. FOR INDUSTRY, MUNICIPALITIES, RESIDENCES

ZEOLITES, ION EXCHANGERS, DEMINERALIZERS, DEAERATORS, FILTERS, CHEMICAL FEEDS, PRECIPITATION EQUIPMENT, DEGASIFIERS, CO_2 METERS, SWIMMING POOL PURIFICATION, INTERNAL BOILER FEEDWATER TREATMENT.

November 12, 1952.

Prof. G. Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci 32, Milan, Italy

Dear Prof. Natta:

Thank you for your letter of November 5th. We are happy to send you, without charge, under our Sample No. 49908, one pint each of Permutit A and Permutit S-2.

We are enclosing copies of the following literature:

Permutit Ion Exchangers
Manual for Laboratory Use of Ion Exchangers

We have conducted a considerable amount of work on the removal of formic acid from formaldehyde and have found that both Permutit A and Permutit S are very successful for this purpose. As a matter of fact, most of the formaldehyde manufactured in the United States at present is treated for the removal of formic acid by Permutit ion exchangers.

Permutit A would probably be more satisfactory than Permutit S, as it has a somewhat higher capacity when treating aldehyde solutions, and there is less possibility of polymerization of the aldehyde. It has been our experience that the possibility of polymerization is almost entirely as a result of traces of free alkali remaining in the bed after regeneration, and hence we recommend that the bed be rinsed very thoroughly with demineralized or distilled water after the regeneration step.

We will look forward to hearing from you if we may be of any further assistance to you.

Very truly yours,

THE PERMUTIT COMPANY

C. F. Paulson

C. F. Paulson
Special Applications Dept.

DF
Enc.

December 15,1952

Mr. C.F.Paulson
Special Applications Dept.
The Permutit Company
330 West 42nd Street
New York 36,N.Y.

Dear Mr. Paulson,

thank you very much for your kind letter of November 12 and for the samples you have sent us; we shall examine them as soon as we shall have got them.

The problem that interests us is not connected with formaldehyde purification,but with that of higher aldehydes,in absence of water. For this reason it is necessary to work with resins that do not swell in the presence of organic solvents.

We shall be very grateful to you,could you let us know if you have more suitable materials than the ones of which you sent us the samples.

With many thanks and best regards

Yours sincerely

(Prof. G. Natta)

November 5,1952

The Permutit Company
Dept. CN.10
330 West 42nd Street-New York 36,N.Y.

Sirs,

As we are studying the industrial depuration of aldeheydes in non aqueous solutions from acids,we should like to examine the behavior of your Permutit S.

We know that it is not possible to use for our purpose resins containing primary and secondary amines. In the case that you think that your Permutit,containing quaternary nitrogen,is stable in the presence of aldehydes and moreover do not cause their polymerisation,please send us a sample thereof.

Have you at your disposal other anion exchangers,suitable for our purpose,we beg you to send us some samples.

With many thanks and best regards

Yours faithfully

(Prof.G.Natta)

FOSTER WHEELER CORPORATION

165 BROADWAY

NEW YORK 6, N. Y.

CABLE ADDRESS
REWOP

BRANCHES IN
PRINCIPAL CITIES OF THE
UNITED STATES AND CANADA
ALSO
LONDON AND PARIS

April 13, 1948

Prof. Dott. Ing. Giulio Natta
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta;

I am very happy to inform you that I am forwarding to you by regular mail a copy of our bulletin 0-48-3 describing "Hypersorption". I am sure that you and Mr. P. Giustiniani, to whom I am also sending a copy, will be very interested in it.

I recall with pleasure your visit to our New York office while you were visiting the United States.

With all my respect, I remain,

Very truly yours,

FOSTER WHEELER CORPORATION

G. Puccinelli

G. Puccinelli
Export Department

GP:ejo
Original via airmail
cc & catalogs-regular mail

CABLE ADDRESS
REWOP

FOSTER WHEELER CORPORATION

165 BROADWAY

NEW YORK 6, N. Y.

BRANCHES IN
PRINCIPAL CITIES OF THE
UNITED STATES AND CANADA
ALSO
LONDON AND PARIS

June 23, 1947

Societa Torinese Adesivi Resine
Via Giacomo Bove, 3
Torino, Italy

Fatty Acid Fractionation

Gentlemen:

We wish to thank you for your inquiry dated May 25th covering the above subject.

For your information we are attaching a copy of the May-June 1944 issue of our publication HEAT ENGINEERING which contains on Page 62 a description of subject equipment.

We hope the above information will be of assistance to you and should you require any additional data, please advise.

Very truly yours,

FOSTER WHEELER CORPORATION

G. Puccinelli

G. PUCCINELLI
Export Department

GP:CL

enclosure

Via : Air Mail
cc: Regular Mail

January 13, 1953

Prof. H. Mark
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2, New York

Dear Professor Mark,

I have received your letter of December 4.

I beg to confirm you my participation to the Stockholm=Uppsala Meeting, of July=August 1953.

I am in full agreement with all the items you mentioned and I have no comments to make to your preliminary proposal. I should be very grateful to you, would you send me samples of the new and better defined fractions of polystyrene, that you mentioned in item 2 , so that results of researches can be available at the Meeting.

With kindest personal regards and best wishes, I am, as always,

most cordially and sincerely yours

(G. Natta)

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

April 21, 1952

Professor G. Natta
Instituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

As you know, I plan to be in Italy around the middle of May, and Professor Nasini has kindly written to me about a possible program for May 14 and 15; I proposed the following schedule.

May 14: 9:30 a.m. - 10:30 a.m.
"Lecture on Progress in Fiber"

10:30 a.m. - 12:30 p.m.
Discussion on: Nylon, Dacron, Orlon, Acrilan, Cyana, Acco, Kuralon, etc. with emphasis on dyeing and finishing. Graft Copolymers

2:00 p.m. - 3:00 p.m.
Lecture on "Progress in Plastics"

3:00 p.m. - 5:00 p.m.
Discussion on Epon Resins, New types of Silicones, Teflon, Kel-F, Krillium, Styrinated Polyesters, Mylar and new types of inorganic resins. Transistors
Evening: Lecture in Milano on "Progress in the field of Highpolymers"

May 15: 9:30 a.m. - 10:30 a.m.
Lecture on "Progress in Rubber"

10:30 a.m. - 12:30 p.m.
Discussion on: New Catalysts, Activators and Modifiers: Cold Rubber; Butyl Rubber; Resin-Rubber combinations and Oil-Rubber combinations; new methods of testing.

Afternoon: Visit to Torino and lecture in Torino on "Progres in the field of Highpolymers".

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

I am leaving the United States on April 30, and shall be in England from May 1 - 6. You can reach me c/o the Royal Institution, 21 Albemarle Street, London, W.1; please kindly let me know whether the above program appears attractive to you so that I can make the final arrangements.

It is with great pleasure that I am looking forward to seeing you in the very near future. In the meantime, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

HM:JB

H. Mark

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

May 21, 1952

Professor G. Natta
Istituto Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I would like to take this opportunity to express my many thanks for the very kind reception you gave me during my visit to Milano, for the very pleasant time I had, for the very interesting discussions, and for your gracious hospitality.

I hope to come to Italy again soon and to have the pleasure of seeing you again. Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark/gs

HM:JB

H. Mark

April 1,1952

Professor H.F.Mark
Institute of Polymer Research
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2,New York

Dear Professor Mark,

I am very pleased to hear that you will come to Italy this Spring and spend some days in Milano.

I already talked with Dr. Morandi,vice-President of the Montecatini Soc. and President of the Lombarda Section of the Italian Chemical Soc.,about your visit. Prof. Nasini also had spoken thereof to dr. Morandi.

In next days,you will receive a definitive confirmation from the Montecatini Soc. and Chemical Soc. about the subject of your lecture and report. I think that a communication about cold rubbers will be very interesting indeed.

In the hope of soon seeing you,I am,with best personal regards,yours

Yours very sincerely

(Prof. G. Natta)

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

March 24, 1952

Professor G. Natta
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I hope that I shall be able to visit Italy this Spring and to spend two days in Milano (Mai 14 and 15) and Torino.

It will be a great pleasure to have the opportunity to see you again at this occasion and I would be very glad if I could also meet your collaborators. Maybe you could be so kind and arrange a lecture at your Institute on one of these days.

I would also be very glad to report to the Rubber Industrialists on the latest progress in Butyl rubber and in GR-S, GR-N and GR-S2 production, if they should be interested in such a report. I have also written to Professor Nasini and Professor Centola and presume that they will get in touch with you in this matter. Looking forward with much pleasure to seeing you in the near future, I am, with kindest regards and best wishes, as always,

Very sincerely yours,

H. Mark/gs

H. Mark

HM:JB

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

April 9, 1952

Professor Giulio Natta
Instituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of April 1, 1952. I am looking forward with great pleasure to my visit to Italy and I shall prepare a report on "Progress in the Chemistry and Technology of synthetic Rubber" which I hope will contain a few new scientific facts.

Please accept my kindest personal regards and best wishes. As always, I remain

Very sincerely yours,

H. Mark/cr

H. Mark

HM:CR

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

June 16, 1952

Professor Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

It gives me great pleasure to inform you that the Commission on Macromolecules of the International Union of Pure and Applied Chemistry has resolved to ask you to join this Commission as a National Representative Member for Italy.

I would be greatly obliged to you if you could kindly let me know whether you are inclined to accept this invitation to cooperate with this Commission in the investigation of macromolecular substances. All present members hope that you will be so kind to accept this invitation, and I shall, after your acceptance, submit to you all reports and documents which refer to the activities of this Commission.

Looking forward to a favorable reply, I am, with kindest personal regards and best wishes, as always,

Very sincerely yours,

H Mark

H. Mark

HM:JB

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

June 6, 1952

Prof. G. Natta
Politecnico di Milano
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta,

I haven't answered your last letter for a long time because I was busy with preparations for my trip to Europe and my travel schedule was not at all worked out in detail. However, due to certain circumstances I had to change my plans completely and instead of leaving for Europe on June 11th, I have postponed my trip until sometime in the Fall of this year.

You were very kind to invite Mrs. Hohenstein and myself to spend a few days with you and your wife, and we would have been delighted to do so, but all this is changed now; nevertheless, I hope that I shall have the pleasure of seeing you and Mrs. Natta when I come over in the Fall and am looking forward very much to this occasion.

I hope that you and your family are enjoying a pleasant Summer, and remain, with kindest personal regards,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

June 21,1952

Prof.M.Peter Hohenstein
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2,New York

Dear Professor Hohenstein,

I have received your letter of June 6,from which I was sorry to hear that you will not come to Italy this Summer,as you had planned.

I am looking forward to the pleasure of seeing you and Mrs.Hohenstein in the Fall.

With kindest personal regards,I remain

Yours faithfully

(Prof.G.Natta)

April 5 1952

Prof. W. Peter Hohenstein
Polytechnic Institute of Brooklyn
99 Livingston Sreet
Brooklyn 2,New York

Dear Professor Hohenstein,

I am very pleased to hear that you and Mrs. Hohenstein will come to Italy next Summer. As you ask how to spend your holidays in Italy,I might suggest you this program:

If you meet your wife in Nice,stop first of all on the French Côte d'Azur and then come up to Portofino which is a very nice place. Beeing Portofino very crowded in Summer,you should write at once to the"Hotel Splendido" for the rooms.

As for the Mountains,Val d'Aosta is very interesting if you have a car to make excursions in the different valleys. I shall be there at Champoluc in August:if you like to come and to be our guests in our Châlet for a week,we shall show you the country all around.

Then you might go on the Switzerland and see the Alps from the other side. Let me know something about what you are going to do.

With my wife,I send you my best regards also for Mrs Hohenstein

Yours very sincerely

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

March 6, 1952

Prof. G. Natta
Politecnico di Milano
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta,

I haven't had the pleasure of hearing from you for a long time but I know that you are a very busy man and may not have been in Italy at all during recent months.

I am delighted to be able to write you that Mrs. Hohenstein and I contemplate coming to Europe in the Summer of this year and it is in this connection that I am writing you specifically. I shall arrive in England as early as the 20th of June, but I'll be busy in England, France and Belgium until about the 20th of July. At that time my wife will fly over and join me in Zurich or in Nice. We then want to spend a four weeks' vacation, two weeks of which in the mountains and two weeks by the sea.

As for the mountains, I thought either to stay in Switzerland or in Northern Italy (Vald'Aosta or Dolomites). As a sea resort I had in mind Portofino or Santa Marguerita Ligure.

I will take my car over and so will be independent of airlines or trains. Also I may make some car trips to Florence or Venice if it will not be too hot. I would be most grateful if you will give me some advice as to the mountain places in Northern Italy which you think would be nice and the hotels in these mountain resorts. Likewise I would appreciate it if you would write me which hotel on the sea you would recommend. I think it would be well to make reservations early because most probably all Summer resorts will be very crowded.

I am looking forward to this vacation in Europe because during the last few months I haven't been feeling well at all and I need a good rest and relaxation. I hope that we will have the pleasure of meeting Mrs. Natta and you when we come to Italy and we are both looking forward very much to that occasion.

Hoping that you and your wife are in good health, I remain, with best personal regards,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH/ec

XIIth International Congress of Pure and Applied Chemistry

NATIONAL RESEARCH COUNCIL
DIVISION OF CHEMISTRY AND
CHEMICAL TECHNOLOGY

HARRY L. FISHER, PH.D.
Administrative Assistant
2101 CONSTITUTION AVENUE
WASHINGTON 25, D. C.
U. S. A.

May 24, 1951

Dr. Giulio Natta
Ordinario di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

Many thanks to you for sending in the paper by E. Mantica and yourself entitled "The distribution of products in a series of successive competitive reactions." We also have the abstract of the paper by yourself and Piero Pino entitled "Researches on the Synthesis of oxygen-containing organic compounds from unsaturated organic compounds and carbon-monoxyde in presence of cobalt-catalysts," and will look forward to receiving the paper itself soon.

I thank you for your good cooperation.

Sincerely yours,

H. L. Fisher

Harry L. Fisher

HLF:EH

January 29, 1952

Mr. Paul H. Emmett
115 Yorkshire Road
Pittsburgh 8, Pennsylvania

Dear Mr. Emmett,

I am in receipt of your letter of January 29 referring to an eventual our collaboration to your book on catalysis, for some other subjects than methanol or higher alcohol synthesis.

As to isoparaffins synthesis from carbon monoxide and hydrogen, I shall write to you again as soon as I have examined througly Pichler Works : it is necessary to see if the subject falls more suitably in chapters on higher alcohol synthesis, to which it may be referred, showing some analogies in reaction mechanism, or in those on hydrocarbon synthesis (Fischer-Tropsch process) to In the latter case it should be written by the author covering this synthesis.

As to your proposal of making a joint chapter covering 1) esters of dicarboxylic acids from olefins, or acetylene, carbon monoxide and alcohols; 2) amides from olefins, carbon monoxide and ammonia; 3) acids from carbon monoxide and alcohols and 4) acids from olefins, carbon monoxide and water, together with all other miscellaneous reactions of carbon monoxide, I think that this chapter would result not homogeneous. In fact, it would cover, e.g., many various arguments, as, e.g., aldehyde synthesis by the Gattermann method, formate synthesis from alcohols and carbon monoxide, formamide synthesis etc., which are completely different from the point of view of catalysis. We believe that a possible solution might be to divide the subject into three parts:

1) Orchin and coworkers : Oxosynthesis (aldehyde and ~~xxxxx~~ alcohol synthesis) Homologation.

2) Natta and Pino : Synthesis of esters, amides, acids, anydrides from olefins and carbon monoxide.
In developing ester synthesis from olefins, we shall cover briefly also the synthesis of esters and ketoesters from acetylene and carbon monoxide, as it presents some analogies.

3) Orchin and coworkers : Miscellaneous reactions.

Eventually we could collaborate to this third part with: Synthesis of acids from alcohols and carbon monoxide - Synthesis of ~~ethers from~~ esters from ethers and carbon monoxide - Synthesis of ketones may be included in first or in second part.

With kindest personal regards, I am

Yours sincerely

(Prof. G. Natta)

March 21,1952

Politecnico

Mr. Paul H. Emmett
115 Yorkshire Road
Pittsburgh 8,Pennsylvania

Dear Mr. Emmett,

Please excuse me if I reply to your letter of February 20 only today.

According to your proposal,I and Dr. Pino will write the chaptre covering the topics:

A)= Synthesis of esters of dicarboxilic acids,olefins or acetylene,carbon monoxide and alcohols.

B)= Synthesis of amides from olefins,carbon monoxide and ammonia.

In regard to the other topics,we have worked experimentally upon:

C)= Alcohols plus carbon monoxide to form acids

D)= Ethers plus carbon monoxide to form esters

and we agree to cover briefly these two topics.

I would like to know how many pages will be accorded to the work on methanol and higher alcohol synthesis and on the synthesis of esters and amides from olefins and alcohols from esters.

With kindest regards,I am

Yours sincerely

(Prof.G.Natta)

October 16,1952

Professor Harry L.Fisher
2101 Constitution Avenue
Washington 25,D.C. - U.S.A.

Dear Professor Fisher,

I like to see that you have been proposed as President-Elect of the American Chemical Society. My friends of Milan and I,who enjoyed very much the time we have spent with you during your visit in Milan,have made our choice for you,and are sure that you will reach this high honor.

I have read on "Chemical News" that in U.S.A. the possibility of appeal,with regard to visà for American passes,has been given. As you know,the visà has not been concessed to me,in spite of your very kind interest. Is this appeal possibility concessed to non-American people,I should like to appeal,as decision taken for me is certainly based on a mistake.

In the case that you know the proceedings which have to be followed,I should be very grateful to you,will you kindly advice me in this matter.

With many thanks and best regards,I am

Yours very sincerely

(Prof.G.Natta)

February 20,1952.

Professor Giulio Natta,
Ordinario di Chimica Industriale,
Milan, Italy.

Dear Professor Natta:

I have discussed your letter of January 29th with Dr. Orchin and believe that for the most part we are in agreement with your proposals. We believe, however, that in view of the short amount of time that remains for the writing of these various chapters, it may be well to divide the subjects in some equitable manner and not count on the collaboration of you and Dr. Orchin in any one particular chapter. On this basis, then, we have the following proposals to make.

1- You and your various co-authors will cover the work on methanol synthesis and higher alcohol synthesis, as already planned.
2- Dr. Orchin and his co-workers will cover the work on oxo-synthesis.
3- You and Dr. Pino will write a chapter covering the following topics-
   A- Synthesis of esters of dicarboxilic acids,olefins or acetylene,carbon monoxide and alcohols
   B- Synthesis of amides from olefins, carbon monoxide, and ammonia.

It is our understanding that you have done actual experimental work on both of these reactions. We are not quite clear, however on which of the additional reactions you have also included in your experimental work. Of the following items, accordingly, we would like you and Dr. Pino to cover as many as you have worked upon experimentally. If you would be so good as to designate which of the following that you have mentioned in your letter have actually been worked upon and accordingly would be covered by you and Dr. Pino, I shall see that Dr. Orchin and his co-workers cover the remaining topics. The items to which I refer are:

C-Alcohols plus carbon monoxide to form acids,
D- Olefins plus carbon monoxide plus water to form acids
E- Ethers plus carbon monoxide to form esters
F- Formamide synthesis
G- Formate synthesis from alcohols and carbon monoxide
H- Aldehyde synthesis by the Gattermann method

Dr. Orchin expressed himself as being especially anxious to have you cover any of these topics upon which you have done experimental work. He and his co-workers will then be glad to cover the rest of them together with other miscellaneous reactions involving carbon monoxide.

I forgot to mention under item 1 above that of course you will include the work that you mentioned relative to the hydrogenation

of free acids and the hydrogenation of esters. These latter topics were outlined on page 2 of your letter of November 12th 1951.

I hope that the above arrangement is satisfactory to you. It should mean that between you and Dr. Orchin a very complete coverage will be made of all types of synthesis involving carbon monoxide.

With kindest personal regards, I am

Sincerely yours,

Paul H. Emmett.

Paul H. Emmett.

March 31,1952.

Professor Giulio Natta,
Ordinario di Chimica Industriale,
Milan, Italy.

Dear Professor Natta:

Thanks for your letter of March 21st. If it is satisfactory to you, I would very much appreciate having you and Dr. Pino cover items A, B, C and E mentioned in your letter. In addition to this, as I understand it, you will cover the work on methanol synthesis and on higher alcohol synthesis. Also, as outlined in your letter of November 12th, you will include either as a separate chapter or in connection with one of these other chapters, the work that you have done on the hydrogenation of free acids and the hydrogenation of esters.

In some of our previous correspondence I raised the question as to whether you also would like to include a discussion of isoparaffin synthesis from carbon monoxide and hydrogen. In your letter of January 29th you mentioned that you would write to me in regard to your decision in this matter as soon as you had had a chance to examine thoroughly the papers by Pichler on the subject. I shall be very glad to have you and your collaborators cover this topic also if you wish to do so. On the other hand, if you prefer, I can have those who are writing the work on Fischer-Tropsch synthesis cover the work on isoparaffin synthesis.

In your letter of March 21st you raised the question as to the number of pages to be included in the write-up on methanol synthesis and on higher alcohol synthesis. I would say that you should include as many pages as you feel are necessary in order to make a critical summary of all of the good work that has been done on these various topics. There is a great deal of flexibility in the number of pages to be devoted to each. As an estimate, I would think that the chapters on methanol synthesis, higher alcohol synthesis and preferential hydrogenation of free acids and of esters might require fifty typewritten pages apiece. This would mean a total of about one hundred fifty typewritten pages for these three topics. This, however, is only an estimate. My guess,however, is that for these three chapters the total number of pages will be in the range one hundred to two hundred typewritten pages.

For topics A, B, C and E, mentioned in your letter of March 21st, I would again estimate that each topic might take about fifty typewritten pages. This would make a total of two hundred typewritten pages for covering topics A, B, C and E. If,in addition to these various topics, you decide to include a discussion of isoparaffins, I would think

that that subject also would probably amount to about fifty typewritten pages. If we add all of these up, accordingly, my estimate would be that your total contribution, together with that of your various co-authors, might amount to a total of about four hundred typewritten pages, provided you include the subject of isoparaffins. This will probably condense to about two hundred book pages, as judged by the average size of printed compared to typewritten pages.

I hope that you will understand that this is only an estimate. More space is available if you need it. On the other hand, if you feel that some of the topics do not need as many pages as I have estimated, you can, of course, cover the subject in fewer pages. The important thing, is, I believe, that each of the topics be covered critically and sufficiently comprehensively as not to omit any of the ideas that you, yourselves, have advanced, or that have been advanced by other authors, in discussing these topics in the literature.

In agreement with our previous discussions then, I shall plan to have Dr. Orchin and his co-workers cover topics D, F, G and H mentioned in my letter of February 20th in addition to the chapter that they are writing on oxo-synthesis.

I want to say again how much I appreciate you and your co-workers cooperating in the covering of this particular work. I feel sure that your contributions will make the coverage much more complete than it could possibly be if you had not agreed to write these numerous chapters. If I can be of any further assistance to you, please do not hesitate to call upon me.

With kindest personal regards, I am

Sincerely yours,

Paul H. Emmett

Paul H. Emmett.

Chemical and Engineering NEWS

PUBLISHED BY THE
AMERICAN CHEMICAL SOCIETY

1155 SIXTEENTH STREET, N.W.
WASHINGTON 6, D. C.

WALTER J. MURPHY
EDITOR

LONDON OFFICE:
TELEPHONE: TEMPLE BAR 3605
CABLEGRAMS: JIECHEM, LONDON
TELEGRAMS: JIECHEM, ESTRAND, LONDON

ADDRESS REPLY TO:
RICHARD L. KENYON
ASSOCIATE EDITOR
BUSH HOUSE
ALDWYCH, LONDON, W.C.2

13th November, 1952.

Professor G. Natta,
Istituto di Chimica Industriale,
Politecnico,
Piazza Leonardo da Vinci,
MILAN, Italy.

Dear Professor Natta,

Recently there was in this office Dr. Philip Newman, of Paris, who is the European representative for the Scientific Design Company. This is a relatively new company which is interested in the buying of chemical processes developed in Europe or in selling American processes to European companies. Dr. Newman is now endeavouring to make the acquaintance of people in the European countries who take an interest in such matters. I have suggested that he might call on you in view of your research work in fields which I know are of interest to him. I have urged him to write to you well in advance, asking for an appointment.

I am very sorry that now I must tell you that Mrs. Kenyon, my daughter and I are returning to the United States in January to resume residence there. The American Chemical Society is to start publication of a new journal — AGRICULTURAL AND FOOD CHEMISTRY — and I am to be Managing Editor. My successor in this office will be Mr. Gordon Inskeep, who is now in our office in Chicago. I hope that I shall have an opportunity to see you again before going to Washington, and I shall urge Mr. Inskeep to make your acquaintance at the first opportunity.

My wife and I send our cordial regards to you and Mrs. Natta.

Sincerely yours,

Richard L. Kenyon

Richard L. Kenyon
Associate Editor

Chemical and Engineering NEWS

PUBLISHED BY THE
AMERICAN CHEMICAL SOCIETY

1155 SIXTEENTH STREET, N.W.
WASHINGTON 6, D. C.

WALTER J. MURPHY
EDITOR

LONDON OFFICE:
TELEPHONE: TEMPLE BAR 3605
CABLEGRAMS: JIECHEM, LONDON
TELEGRAMS: JIECHEM, ESTRAND, LONDON

ADDRESS REPLY TO:
RICHARD L. KENYON
ASSOCIATE EDITOR
BUSH HOUSE
ALDWYCH, LONDON, W.C.2

January 8, 1952.

Professor Ing. Giulio Natta,
Via Mario Pagano 54,
MILANO, Italy.

Dear Professor Natta,

I have just returned to London following the extended trip of which my visit to Milan was a part. I found the visit to Milan very fruitful and I feel that I am indebted to you for valuable assistance in making acquaintances there.

Mrs. Kenyon and I both enjoyed very much the luncheon at your home and the hospitality which you extended us. We send our warmest thanks and our cordial good wishes to you and Mrs. Natta.

Sincerely yours,

Richard L. Kenyon

Richard L. Kenyon.

Chemical and Engineering NEWS

PUBLISHED BY THE
AMERICAN CHEMICAL SOCIETY

1155 SIXTEENTH STREET, N.W.
WASHINGTON 6, D. C.

WALTER J. MURPHY
EDITOR

LONDON OFFICE:
TELEPHONE: TEMPLE BAR 3605
CABLEGRAMS: JIECHEM, LONDON
TELEGRAMS: JIECHEM, ESTRAND, LONDON

ADDRESS REPLY TO:
RICHARD L. KENYON
ASSOCIATE EDITOR
BUSH HOUSE
ALDWYCH, LONDON, W.C.2

January 25, 1952.

Prof. Ing. Giulio Natta,
Via Mario Pagano, 54,
MILANO, Italy.

Dear Professor Natta,

In accordance with our earlier discussions, I am enclosing a draft of the article I have prepared on the Italian chemical industry for publication in CHEMICAL AND ENGINEERING NEWS. I should welcome any comments you might be willing to make.

Thanks to your kind assistance, and that of your colleagues, I have accumulated more information than I shall be able to use. I am sorry that I am not allotted more space for publication. I believe that the greatest weakness in the report is lack of specific data for 1951. It is to be expected that not many specific figures can be found at this early date, but I should like to be able to include estimates of the trends, if possible. For example, in Table 4 under the heading, "1951 Trends," I should like to be able to indicate whether there was a strong increase, moderate increase, little change, moderate decrease , or heavy decrease. Any comments you might wish to give me on this matter will be welcome. No sources will be mentioned in this respect.

Table No. 7 mentioned in "Import-Export" on page 14 is not included. This was taken directly from the 1950 report of ASCHIMICI and as I presume you have access to that I have not enclosed it.

Unfortunately, I do not have much time in which I can change or add to this report, as the final version must be sent from

here by February 1. Minor changes will be possible even a few days later.

I hope you will offer your frank comments on the report. I look forward to receiving them and thank you for any assistance you can give me.

I send my most cordial regards to you and Mrs. Natta.

Sincerely yours,

Richard L. Kenyon

Richard L. Kenyon,
Associate Editor.

RLK:GN
Encl.,

February 8,1953

Mr. Richard L. Kenyon
Associate Editor
Chemical and Engineering News
1155 Sixteenth Street,N.W.
Waschington 6,D.C.

Politecnico

Dear Mr. Kenyon

I have received with delay your letter in date January 25, for I was absent from Milan.

I knew that you have sent a copy of the same work to people of the "Montecatini". At present we are examining together,to control some data. Therefore we shall return you the text after having agreed on eventual corrections.

I send my most cordial regards to you and Mrs.Kenyon

Yours faithfully

(Prof. G. Natta)

March 10th,1952

Politecnico

Mr. H. V. Atwell
The Texas Company
Texaco Petroleum Products
Beacon Laboratories
Beacon,N.Y.

Dear Mr. Atwell;

I was very glad to have your news. I am pleased to meet in Italy with Mr. P. L. Dinkins and Dr. Max Neuhaus.

Referring to the actual activity of our laboratory,I whish to let you know that,as to the synthesis of carboxylic acids from acetylene,we are engaged with the Lonza Co. of Basilea,which patented with us the process.

As to the field of Oxosynthesis,we are engaged with the Montecatini Co.,which is building up a large plant for production of butyrraldehyde and ethylhexyl alcohol from propylene,and higher alcohols by oxosynthesys also.

In the case that such matters would interest your Society,I shall be able to let you go in touch with these Companies.

I shall be pleased to discuss with your people about the possibilities of applying in America some new chemical processes which have been developed here.

My wife remembers with sympathy Mrs. Atwell and hopes to have the opportunity to see her again in Italy.

Very truly yours

(Prof. G. Natta)

ALDEN H. EMERY
EXECUTIVE SECRETARY
REPUBLIC 5300

AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EXECUTIVE SECRETARY

WASHINGTON 6, D.C.
1155 SIXTEENTH ST., N.W.

October 10, 1952

Dear Member:

Although the schedule established by our Bylaws is rigid, it is possible for you by using air mail to participate in the choice of President-Elect of the American Chemical Society for 1953. He will become President of the Society in 1954.

The voting schedule requires that all ballots to be counted be received in this office on or before December 1. We believe that your return, as well as this mailing, must be by air mail. The Bylaws require that your ballot be placed in the blue envelope which then must be sealed. It must be enclosed in an outer mailing envelope. Your signature must appear on the outer mailing envelope or on a slip of paper enclosed in this outer mailing envelope. DO NOT WRITE ON THE BALLOT ENVELOPE OR ENCLOSE IN IT ANYTHING EXCEPT THE BALLOT!

In order to assist you in making your choice for President-Elect, we are enclosing brief biographical sketches of those who have been nominated for this office.

We hope that you will take advantage of this opportunity to indicate your choice of a professional associate for this high honor.

Cordially yours,

Alden H. Emery

Alden H. Emery
Executive Secretary

AHE:td
Enclosures

Ing. Palombelle
Albergo Romagna V.le Romagna

Fisher

Caro —

Ho appreso con molto piacere ~~della sua~~ che ~~Lei~~ il Sig. è stato proposto a Presidente del Sup. Cons. Sup.

Tutti i miei amici di Milano e di Torino con molta simpatia, hanno detto il loro voto per lei e noi capiamo che lo venga eletto nessuno.

~~Lei sarà~~ ~~chiamato~~
~~Desidero che~~ ~~[illegible]~~
Ho letto nel Chemical News che è stata istituita dagli S.U. la possibilità di appello per quanti signoranti i visti ai passaporti ~~quando~~ ~~[illegible]~~ ~~[illegible]~~ Come lei sa i visti, nel mio Wassenaar vi è stato concesso è la sola possibilità di appello i concetti ai sudditi con Americani correi appellarmi poiché la decisione ad ai signori non avrà come base che su di un errore.

~~Lei sarà forse di~~
Ed con che lei sapere quanto bisogna ~~[illegible]~~ per dare appello le sarei molto grato se volesse consegnarmi in proposito

Lei sarà molto grato se lei [illegible]

THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS

BEACON LABORATORIES
C. E. CUMMINGS, SUPERINTENDENT
R. K. FIETSAM, ASST. SUPERINTENDENT
C. E. MOSER, ASST. DIRECTOR OF RESEARCH
B. HEGEMAN, ASST. DIRECTOR TECHNICAL SERVICE

BEACON, N. Y.

February 29, 1952

AIR MAIL

Prof. Guilio Natta
Polytechnico di Milano
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Prof. Natta:

During my visit with you last December, I think I mentioned that my interest in several of the activities in your laboratories would be shared by our subsidiary, the Jefferson Chemical Company. Quite recently it has been decided that two officials of Jefferson will make a trip to Europe next summer and I hope very much that they can visit you and some of your associates when they reach Italy early in May. This trip will be made by Mr. P. M. Dinkins, President and Dr. Max Neuhaus, Vice President of Jefferson and they will write to you directly to determine the exact date which would be mutually satisfactory for their call at the Polytechnico. I hope they can also meet Dr. Pino because I know that they will be interested in his work on the carbonylation of acetylene. I was very sorry that I could not prolong my visit in Milan so as to see Dr. Pino but he will find Mr. Dinkins and Dr. Neuhaus much better qualified to discuss this particular line of work than I would be.

Mrs. Atwell and I look back on our visit at your home as one of the highlights of our European trip. Mrs. Natta's assistance on shopping expeditions was particularly appreciated and our friends have greatly admired the souveniers which she helped my wife to select. Your arrangements for us to visit Prof. Nasini in Torino were also much appreciated and our visit with him was most enjoyable.

My wife joins me in sending repeated thanks and very best wishes to you and your family. I surely hope that we shall some time have the opportunity to entertain you in this country.

Very truly yours,

H. V. Atwell

H. V. ATWELL

Faithfully yours

HVA-DZ

for Fifty (

USA 1953

August 29, 1953

Prof. H.F. MARK Director
Institute of Polymer Research
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 2, NEW YORK

Dear Prof. Mark,

at my arrival in Milano from the journey to Sweden I have found your letter in date 5 August, where inform me that I have been proposed as a National Representative of the commission on Macromolecules in the International Union of Pure and Applied Chemistry.

I thank you and inform you that I accept this nomination.

I hope to see you soon in Italy. With kindest regards and best wishes,

Very sincerely yours

G.NATTA

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

August 5, 1953

Professor G. Natta
Direttore dell 'Instituto di Chimica Industriale
Del. R. Politecnico di Milano
Poazza Leonardo da Vinci 32
Milano, ITALY

Dear Professor Natta:

I would like to take this opportunity to inform you that you have been proposed as a National Representative of the Commission on Macromolecules in the International Union of Pure and Applied Chemistry for a four year term.

I would very much appreciate your letting me know if you accept this nomination.

With kindest regards and best wishes, I am, as always,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

January 13,1953

Mr. E.S.Proskauer
Editor in Chief
Interscience Publisher,Inc.
250 Fifth Avenue,New York 1,N.Y.

Politecnico

Dera Mr. Proskauer,

I am in receipt of your very kind letter of January 2.

I thank you very much for your empressement to mail to me the Journal of Polymer Science of 1953,and I shall be very pleased to receive also the volumes for 1952.

With many thanks and best wishes for the New Year,I am

Yours sincerely
(Prof.G.Natta)

Cable Address: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

January 2, 1953

Professor G. Natta
Instituto di Chimica Industriale del
R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

My attention was just called to the fact that you did not receive JOURNAL OF POLYMER SCIENCE, in your capacity as a member of the Advisory Board. Please accept our apologies for this oversight.

Issues of the Journal will be mailed to you again as of January, 1953. And if you would like to have the back two volumes for 1952, we will be very happy to send these to you so that you may complete your files.

May we take this opportunity to wish you a very happy New Year.

Sincerely,

INTERSCIENCE PUBLISHERS, INC.

E. S. Proskauer

E. S. Proskauer
Editor-in-Chief

ESP:ec

ROYAL MONCEAU HÔTEL
35·37·39, AVENUE HOCHE
PARIS
Champs-Elysées-Etoile

TÉL. CARNOT 78-00
TÉLÉGR. ROYAMONCO-PARIS

4/18/53

My dear Prof. Natta.

Thank you for your last letter. As you see from the adress I am on the way to Milano and should arrive there either on April 21 or April 22. I shall call you immediately upon my arrival and hope that we then can arrange for a meeting.

Looking forward with pleasure to seeing you and Mrs. Natta soon

Y.

I remain with kindest
personal regards

Sincerely yours

V. G. Hohenstein

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

March 17, 1953

Professor G. Natta
Institute Politecnico Di Milano
Piazza Leonardo Da Vinci
Milano, Italy

My Dear Professor Natta:

It is a pleasure to inform you that I shall leave for Europe on April 7 and expect to be in Milano around April 20 or 21.

It is now a long time that I have not had the pleasure of seeing Mrs. Natta or you and, there are a number of interesting things which I would like to discuss with you. I hope that you and Mrs. Natta are going to be in Milano at the time of my visit there. Will you be good enough to write me a short note, indicating whether you will be available at anyone of the two days mentioned above. I also, would like to say hello to Mr. Giustiniani if he will be in Milano at the time of my visit.

With kindest personal regards to Mrs. Natta and yourself.

Sincerely yours,

W. Peter Hohenstein,
Professor of Polymer Chemistry

WPH:IAG

March 24,1953

Prof. W. Peter Hohenstein
Department of Chemistry
Polytechnic Institute of Brooklyn
Brooklyn 2,New York

Dear Professor Hohenstein,

I shall be very glad to see you in Milan next month and to discuss with you many interesting things.

I hope that I and my wife shall be in Milan at the time of your visit here. Therefore,please confirm to me the day of your arrival,as I should be very sorry to not be able to see you.

With kindest personal regards to Mrs.Hohenstein and yourself.

Sincerely yours

(Prof.G.Natta)

UNIVERSITY OF ILLINOIS
DEPARTMENT OF CHEMISTRY
URBANA

THE WILLIAM ALBERT NOYES LABORATORY

February 3, 1953

Prof. Dott. Giulio Natta
Istituto di Chimica Industriale
Politecnico di Milano
Milano, Italia

Chiarissimo Professore,

dopo un viaggio proprio meraviglioso in Italia, sono dovuto ritornare, sebbene a malincuore, a Urbana per riprendere il mio lavoro.

Le invio separatamente una copia del mio libro "Advanced Organic Chemistry," che Le ricordi sempre la mia simpatia.

E stato per me un gran piacere di fare la Sua conoscenza e spero vivamente di aver l'occasione di rivederLa, o in America o in Italia, fra non molto.

La prego di accogliere i miei cordiali saluti.

R. C. Fuson

RCF:gm

13th April 1953

Prof. R. C. Fuson
The William Albert Noyes Laboratory
University of Illinois
Department of Chemistry

Dear Professor Fuson:

I was very pleased to receive your very interesting book "Advanced Organic Chemistry", that you kindly sent to me.

I enjoyed very much to have made your knowledge, and hope to see you again soon in Italy. I am sorry that you have not been able to come to our Institute and to visit our laboratory.

Under separate envelope, I am sending you some reprints of my works, concerning mainly the oxosynthesis.

With my best personal regards, I am

sincerely yours

(G.Natta)

January 31,1953

Professor P.H.Emmett
115 Yorkshire Road
Pittsburgh 8,Pennsylvania

Dear Professor Emmett:

I have not heard from you since a long time. I am informing you that I am going on with my work on methanol catalysts, and I have delayed so long in sending you the manuscript as I did not find available data on kinetics of methanol synthesis. Therefore,I had to start with a new careful experimental work. These experiments have begun in the past summer and two chemists are working for. I hope that in a few months we shall be to an end with these researches.

As to oxosynthesis of esters the manuscript is almost ready.

With best regards,I am

Yours faithfully

(Prof.G.Natta)

May 9,1952

Professor P.H.Emmettt
115 Yorkshire Road
Pittsburgh 8, Pennsylvania

Dear Professor Emmett,

excuse me if I have delayed till now in replying to your letter of March 31, in which you asked me whether I also would like to include a discussion of isoparaffin synthesis from carbon monoxide and hydrogen, in the chapter covering the higher alcohol synthesis. After having throughly examined Pichler papers, I think that this subject is to be more convenaoly covered by those who are writing the work on Ficher Tropsch synthesis.

With my best personal regards, I am

Yours sincerely

(Prof.G.Natta)

February 26,1953.

Professor G. Natta,
Institute of Chemical Industry,
Milan, Italy.

Dear Professor Natta:

I was glad to receive your letter of January 31st and to learn that you are coming along nicely on the various chapters that you are planning to write. I have purposely refrained from writing you in regard to your progress because I did not want to disturb you. However, I want you to know that I shall be very glad to get your chapters as soon as you can get them completed.

I was a little surprised in your letter of January 31st to notice that you have gone to the trouble of making experimental measurements on the kinetics of methanol synthesis. Naturally, I shall be very glad to have you include any such data that you may have available in your chapter, but I did not expect you to actually determine experimentally any data that were missing, or needed.

I would very much like to have the chapter on methanol synthesis by April 15th or May 1st if it is possible. Most of the other material for the volume in which the methanol material will be included has already been handed in to me, so that I am trying to get the last chapters from that particular volume in my hands by the above date. I realize that some of your experimental work may not be completed by that time. I would suggest, however, that you send the chapter anyhow, and include such material as will have been completed by that time, on your methanol synthesis kinetic measurements.

You may recall that I raised with you the question of obtaining a chapter on isoparaffin synthesis. I followed your suggestion,however, and obtained an author here at the Bureau of Mines to cover this part of the subject.

In summary, to keep our records straight, I would like to list the items which I understand you are covering. I do not know how many of these items will constitute separate chapters, and how many of them will be combined into one chapter; I will leave that to your discretion. I gather from our previous correspondence that you together with the assistance of Dr. Pino and perhaps other assistants whom you may desire to select, will cover the following topics;

I
1-methanol synthesis
2-Higher alcohol synthesis

II
3-synthesis of esters of dicarboxylic acids from olefins or acetylene,carbon monoxide, and alcohols
4-synthesis of amides from olefins,carbon monoxide~~s~~ and ammonia

III
5-synthesis of acids from alcohols and carbonmonoxides
6-conversion of ~~ethers~~ and carbon monoxide to esters

7-preferential hydrogenation of free acids
8-preferential hydrogenation of esters

If all of these various items other than methanol synthesis are in my hands by July 1st, they will not be delaying the publishing of the particular volume in which they will be incorporated. I hope that you will be able to finish them by that time. The methanol chapter, on the other hand, as mentioned above, I would like if possible to have by the latter part of April or the first of May.

With kindest personal regards, I am

Sincerely yours,

Paul H. Emmett.

Paul H. Emmett.

Prof. P. H. Emmett
1061 Lowrie Lane
Pittsburg 16 - Pa

Emmett

May 23,1953
Pittsburgh, Pa.

Prof. Giulio Natta,
Polytechnic Institute,
Milan, Italy.

Dear Professor Natta:

I was sorry to learn from your letter of May 6th that you have recently been ill, but am glad to mote that you now feal pretty well recovered.

Your experimental results on methanol synthesis sound very interesting. I shall look forward to receiving an account of them. A m glad to note thatyou are making progress on your chapters.

I shall be glad to get the first of your several chapters in July as you mentioned in your letter. By that time I shall be busy correcting the manuscritpts for the volume on hydrogenation so that your chapter will arrive just in time. I have been delayed in my schedule of sending the material in to the publsihers because a number of authors have not been able to finish their contributions on time. However, I shall be glad to get your manuscritps one at a time as rapidly as you finish them. I am tentatively hoping to have all of the hydrogenation material completered by September 1, but if some of it isnt ready by that time I shall just have to wait. I appreciate your finishing up your various chapters as rapidly as circumstances permit but I certainly dont want you to ruin your helath doing it.

With kindest persona l regards, Iam

Sincerely yours,

Paul H. Emmett

1016 Locust Lane
Pittsburgh 28, Pa.
November 6, 1953

Professor G. Natta
Institute of Industrial Chemistry
Piazza Leonardo da Vinci
32 Milan, Italy

Dear Professor Natta:

I am sorry to have delayed so long in answering your letter relative to the chapter that you have written on methanol synthesis. I recently arranged with one of your countrymen, who is spending several months here in the states, to translate into English the article that you have written as soon as he returns to Italy. He is Dr. Umberto Colombo who obtained his Ph.D. degree from the University of Pavia and is now employed by the Montecatini Chemical Company. I would suggest, therefore, that you hold the chapter until he gets in touch with you. He plans to be back in Italy within a few weeks.

As to the figures and drawings, I would suggest that you make accurate pencil sketches in such a form that Dr. Colombo can translate all of the legends into English, and can send them to me at the same time that he sends me the English translation of the paper.

You will be glad to know that the work on catalysis is proceeding nicely. According to present plans, the chapter that you have written will appear in Volume 3. Volume 1 is now in the hands of the printer. Volume 2 will probably be sent to the printer within another month. I shall then start working on the volume for which your chapter on methanol has been written. I hope to have all of the chapters for that volume completed and into the hands of the printer by early spring.

I want to thank you again for agreeing to write various chapters for me in this series. I shall look forward to receiving the chapter on methanol as soon as it has been translated and to receiving the other chapters as soon as you have completed them.

With kindest personal regards, I am

Sincerely yours,

Paul Emmett
fb

Ho ricevuto la sua lettera ieri e ho già avuto con me la traduzione del Dr. Colombo

PHEmmett/fb

ALDEN H. EMERY
EXECUTIVE SECRETARY
REPUBLIC 5300

AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EXECUTIVE SECRETARY

WASHINGTON 6, D.C.
1155 SIXTEENTH ST., N.W.

Mr. Giulio Natta
Via Mario Pagano 54
Milano, Italy

Address Reply to Dues Dept.

April 29,,1948

Dear Mr. Natta:

We have received your remittance in the amount of $ .90.

In accordance with your request we are enclosing herewith one rolled gold American Chemical Society emblem.

Very truly yours,

AMERICAN CHEMICAL SOCIETY

Alice Crim

BY: Alice Crim

EGH
ENCL: one rolled gold button

October 5, 1953

Professor P.H. Emmett
115 Yorkshire Road
Pittsburg 8, Pennsylvania

Dear Professor Emmett,

I am very pleased to inform you that the manuscript of the work covering methanol synthesis is ready. I wish to know under which form figures and graphs have to be put. If you like, I might send you at once the manuscript and then later, the figures.

The manuscript consist of 50 type-written pages and includes also about 20 figures. It is written in Italian and must be translated in English. You wrote me that you know several Italians in Princeton who may be able to translate into English.

It will be necessary, however, that I have a look at the English translation, to correct eventual interpretation mistakes.

Hoping to hear from you soon, I am

very sincerely yours

(Prof. G. Natta)

May 6 1953

Prof. P.H.Emmett
115 Yorkshire Road
Pittsburg 8
Pennsylvania.

Dear Professor,Emmett,

I hoped to be able to send you my work on methanol synthesis before the end of April. I had in mind to go to an end with this work during the Easter holydays. But unfortunately during this period I suffer from renal colics and I was not ableto work. Now,I have recovered my health,but during the academic period,that will finish on June,I have only a limited time at disposal.

I have the pleasure of informing you that the experimental research of kinetics,carried out under different conditions (varying composition of synthesis gases,catalysts; pressure,temperature,studying influence of inert gases) lead to very satisfactory and interesting results,that have been arranged following the new theories on heterogeneous kinetics. On theb basis of these results,I had to modify many conclusions drawn from the old works in the literature.

I will send you the first chapter covering the methanol and the higher alchols synthesis on July On this date I hope to send you also the second chapter covering the synthesis of esters and amides from carbon monoxide,olefines, and alchol,and the synthesis of acids and esters from carbon monoxide,alchols and ethers;the third chapter covering the hydrogenation of acids and esters is still far from its conclusion.

Please excuse once more the delay .

With kindest regards ,I remain

sincerly yours

(Prof.Giulio Natta)

May 5 1953

Prof. P.H. Emmett
115 Yorkshire Road
Pittsburg 8
Pennsylvania.

Dear Professor Emmett,

I hoped to be able to send you my work on methanol synthesis before the end of April. I had in mind to go to an end with this work during the Easter holydays. But unfortunately during this period I suffered from a renal colic and was not able to work. Now, I have recovered my health, but during the academic period, that will finish on May 20, I have only a limited time at disposal.

I have the pleasure of informing you that the experimental research of kinetics, carried out under different conditions (varying composition of synthesis gases, catalysts, pressure, temperature, studying influence of inert gases) lead to very satisfactory and interesting results, that have been arranged following the new theories on kinetics. On the basis of these results, I had to modify many conclusions darwn from the old works in the literature.

I will send you the firs chapter covering the methanol and the higher alchols synthesis on July 1st. On this date I hope to send you also the second chapter covering the synthesis of esters and amides from carbon monoxide, olefines, and alchol, and the synthesis of acids and esters from carbon monoxide alchol and ethers. The third Chapter covering the hydrogenation of acids and esters is still far from its conclusion.

Please excuse once more the delay. With kindest regards,

I am

sincerly yours

(Prof. Giulio Natta)

November 3, 1953

Prof. P. H. Emmett
1601 Lowest Lane

PITTSBURG 16, Pa.

Dear Professor Emmett,

I send you a letter on October 5, but I did not receive your answer and I am thinking that the address was not right.

In my letter I let you know that the manuscript of the work on [illegible] and [illegible] thesis was ready. I also wished to know under which form [illegible] and graphs have to be [illegible]. If you like I might send you at once the manuscript and then, later, the figures.

The manuscript consist of 50 typewriting pages and includes also about 20 figures. It is written in Italian and must be translated into English. My wife tells me that you know several Italians in Princeton, who may be able to translate our work.

It will be necessary, however, that I may take a look at the English translation, to correct eventual inter-pretation failures.

Hoping to hear from you soon, I am

Very truly yours,

Prof. [illegible]

ALDEN H. EMERY
EXECUTIVE SECRETARY

REPUBLIC 7-5300

AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EXECUTIVE SECRETARY

WASHINGTON 6, D.C.
1155 SIXTEENTH ST., N.W.

October 10, 1953

Dear Member:

Although the schedule established by our Bylaws is rigid, it is possible for you by using air mail to participate in the choice of President-Elect of the American Chemical Society for 1954. He will become President of the Society in 1955.

The voting schedule requires that all ballots to be counted be received in this office on or before November 30. We believe that your return, as well as this mailing, must be by air mail. The Bylaws require that your ballot be placed in the blue envelope which then must be sealed. It must be enclosed in an outer mailing envelope. Your signature must appear on the outer mailing envelope or on a slip of paper enclosed in this outer mailing envelope. DO NOT WRITE ON THE BALLOT ENVELOPE OR ENCLOSE IN IT ANYTHING EXCEPT THE BALLOT!

In order to assist you in making your choice for President-Elect, we are enclosing brief biographical sketches of those who have been nominated for this office.

We hope that you will take advantage of this opportunity to indicate your choice of a professional associate for this high honor.

Cordially yours,

Alden H. Emery

Alden H. Emery
Executive Secretary

AHE:dr
Enclosures

Pl Giu Cenini
Pl

Caro Cenini

Con riferimento alla tua richiesta telefonica, ti informo che il tenore massimo di piombo tetraetile ammesso nelle benzine è di 0.05 % per le benzine normali e di 0.06 % per ~~[illegible]~~ i supercarburanti.

Tale norma è pubblicata nella Gazzetta Ufficiale del 27.10.1950

Tale limite è stato fissato in base ad un accordo tra i petrolieri e i fabbricanti di motori.

~~[illegible] Dal punto di vista igienico~~ la eccessiva concentrazione di ~~[illegible]~~ composti di piombo nei gas di scappamento ~~[illegible]~~ ha preoccupato molti sul lato igienico, diffusi ~~[illegible]~~ nelle gallerie e ferrovie da auto veicoli (come quella ~~[illegible]~~ sotto il fiume Hudson) è stato adottato un sistema di ventilazione molto efficace all'uopo applicato alle navi di ridurre il tenore di ossido di carbonio e di composti di piombo.

Altri è stato fatto dai negri S.U.A. si sono usate delle benzine con il 0.07 % di piombo tetraetile

Cordiali saluti

December 22, 1953

Professor P. Emmett
1016 Locust Lane
Pittsburgh 28, Pa.

Dear Professor Emmett,

I received your letter of November 6 in which you told me about Dr. Umberto Colombo for the translation into Turkish of my article.

Till now I did not see this doctor and I should like to know if he has already come back in Italy.

I take the opportunity of wishing you a Merry Christmas and a Happy New Year.

With kindest personal regards, I am

Sincerely yours,

(G. Natta)

USA 1954

Heyden Chemical Corporation

GARFIELD NEW JERSEY

February 19, 1954

VIA AIR MAIL

Direzione Settore Progetti e Studi
Montecatini Co.
Via F. Turati 18
Milano, Italy

Dear Sir:

I recently wrote to Professor G. Natta at Istituto di Chimica Industriale del Politenico with regard to our interest in the OXO synthesis, particularly as it applied to the production of propionaldehyde from ethylene.

In his reply he stated that your company will soon produce butyraldehyde and isobutyraldehyde by this method. He further suggested that you have a pilot plant which he believes might be practical for a study of the propionaldehyde process.

As it happens, the president of our company, Mr. Simon Askin, will be in Italy in the middle of March. If you feel that a matter of mutual interest might be involved, I would like to arrange for him to confer with the head of this department. Mr. Askin is not planning to be in Milano, but could travel there if necessary. Is it possible that such a meeting could be arranged in either Rome or Naples?

I will appreciate your early air mail response to this letter.

Yours very truly,

HEYDEN CHEMICAL CORPORATION

D. X. Klein

D. X. Klein
Manager of Research

DXK:LBV

A	B	C
SEPS 23 FEB. 1954		
1	2	3

Heyden Chemical Corporation

GARFIELD NEW JERSEY

January 28, 1954

VIA AIR MAIL

Dr. G. Notta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Notta:

I recently had the opportunity of speaking with Dr. Irving Wender at the Research Laboratories of the Bureau of Mines. He informed me that you had considerable experience with the production of propionaldehyde because of your association with the projected Bombrini plant.

I am therefore taking the liberty of writing to you and asking the following questions:

(1) Has a plant for the production of propionaldehyde from ethylene and synthesis gas ever been operated?

(2) Is such a plant practical from both an operating and an economic standpoint?

(3) Is design information for such a plant currently available?

Any information which you would care to give me on the above subject would be greatly appreciated.

Yours very truly,

HEYDEN CHEMICAL CORPORATION

D. X. Klein
Manager of Research

DXK:LBV

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

August 24, 1953

Doctor Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Doctor Natta:

It is a pleasure to welcome you as a member to The New York Academy of Sciences and, as Mrs. Miner stated in her letter of August 14th, informing you of your election to membership, we are pleased to extend every courtesy and service to our members.

All Members have the privilege of proposing new members. This privilege, in addition to that of special invitation extended by the Council, is the only means by which a candidate may be elected to this Society. I am, therefore, enclosing a recommendation form and an application blank and assure you we shall be pleased to recommend to the Council any candidate proposed by you.

Please do not hesitate to call upon me on any occasion when I may be of service to you. The Membership Division of the Academy is intended for that purpose, and I shall consider it a pleasure to assist you in any way possible.

Most sincerely yours,

J.G. Jackson
Head, Membership Division

JGJ/hp

February 23rd, 1954.

Mr. D.X. Klein
Manager of Research
Heyden Chemical Corp.
Garfield, N.J.

Dear Sir,

I received your letter of February 19th and wish to inform you that we would be very glad to meet Mr. Simon Askin, President of your Company, during the first fortnight of March. Indeed it would be more convenient for us to see Mr. Askin at our Head Offices here in Milan; please kindly let me know in due time when the visit will take place.

With my best personal regards,

Yours sincerely,

Dr. Bartolomeo Orsoni
Head, Settore Progetti e Studi.

Or/ir

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, February 13, 1954
TELEF. 292-125 - 292-126

Dr. D.X.Klein
Manager of Research
Heyden Chemical Corporation
Garfield - New Jersey

Dear Doctor,

Replying to your letter of January 28: our laboratory has been studying the oxosynthesis these 13 years, and developped several researches working first with the Bombrini-Parodi-Delfino Co. (B.P.D.). The plant for the production of propionaldehyde, that was in building during the war, has not been operated for the destructions made by German troops during their retreat.

After the war, the B.P.D. Co. did not study any longer the oxosyntesis, but our Institute continued the researches working with the Montecatini Co.

Our new researches, part of which has not yet been published, led to some remarkable improvements in oxosynthesis. The Montecatini first industrial production, already accuratly studied in a pilot plant, will be that of Butirraldehyde from propylene. This plant will be practical for both an operating and an economical standpoint; for desing information and others, I can address yourselves to the Montecatini Co. (Direzione Settore Progetti e Studi, Via F.Turati 18, Milano). The Montecatini Co. is the greatest chemical Company not only in Italy but also in the continental west Europe.

We have studied the synthesis of propionaldehyde in laboratory and I think that comparing the laboratory data for butirraldehyde and propionaldehyde with the pilot plant data for butirraldehyde, it is possible to foresee the setting and operating costs for a plant for the production of propionaldehyde. I think also that the Montecatini Co. could very easily prove the propionaldehyde production in its pilot plant, because this plant is near a great plant of the same Co. utilising a great deal of pure ethylene.This production of propionaldehyde offers some advantages comparing with that of butirraldehyde, because the separation of a very pure product is easier than that of butirraldehyde. In the case of butirraldehyde, the separation of two pure isomers, n-butirraldehyde and iso-butirraldehyde, is relatively expensive.

Very truly yours.

(Prof.G.Natta)

April 22, 1954

The New York Academy of Sciences
2 East Sixty-third Street
New York 21, N.Y.

I received a second card asking for the payment of my annual dues for the year 1954.

I already paid on Chase National Bank of the City of New Yprk, through the Banca Commerciale Italiana, on March 25, 1954.

I return you the card with the stamp of the Banca Commerciale Italiana, but I think that now you have already received py payment.

Yours Truly,

1 Encl.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

August 16, 1954

Professor G. Natta
Istituto Chimica Ind. Politecnio
Piazza Leonardo de Vinci 32
Milan, ITALY

Dear Professor Natta:

Thank you very much for your understanding letter.

Professor Mark has agreed to present the paper entitled: Ionic Polymerization. Chain Transfer in Ionic Systems, by C. G. Overberger and G. F. Endres.

I am very grateful for your courtesy in this matter.

With kindest personal regards,

Sincerely,

C G Overberger

CGO:DL

C. G. Overberger
Professor of Organic Chemistry
Associate Director of the Polymer Institute

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

July 27, 1954

Professor Giulio Natta
Istituto Chimica Ind. Politecnio
Piazza Leonardo de Vinci 32
Milan, ITALY

Dear Professor Natta:

I must respectfully inform you that it will not be possible for me to be present at the International Symposium on Macromolecular Chemistry in Milan and Turin this Fall. I have recently been appointed as Head of the Department of Chemistry at the Polytechnic Institute of Brooklyn and my new duties make it impossible for me to leave the country at that time. I am very sorry to be unable to attend.

There remains the possibility of having my paper presented by a colleague from our Institute. Unfortunately a problem has also arisen in this respect. I have a manuscript prepared which I intend to submit to the Journal of the American Chemical Society for publication. Thus it would not be possible for this manuscript to be published in a regular Italian Journal because of the rules of the Journal of the American Chemical Society. If you could assure me that the paper would only be published in the form of a preprint and not in a regular Journal, I would be glad to send it to you as soon as possible and make plans to have it presented by Professor Mark. I would of course acknowledge its presentation at the Conference.

I would appreciate your consideration and advice.

With kindest regards,

Sincerely,

C G Overberger

CGO:DL

C. G. Overberger

xx x
26 2

Milano August 5, 1954

Professor C.G.Overberger
Department of Chemistry
Polytechnic Institute of
Brooklyn 1, New York

Dear Professor Overberger,

I received your letter of July 27, and I congratulate you very muchfor your charge as Head of the Department of Chemistry. I quite understand how your new duties make impossible f for you to be present at the Symposium and I am very sorry for this.

In regard to your paper, I regret very much to have to tell you that all the preprints will be published in a special issue of "La Riverca Scientifica". You can, however, have your paper presented by a Colleague of your Institute (its title is already listed), but we shall not published it neither in the form of a preprints, nor in a regular Journal Italian

Hoping you will agree to this arrangement, I am,

Very truly yours,

(G.Natta)

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

April 29, 1954

Prof. Giulio Natta
Istituto Chimica Ind. Politecnio
Piazza Leonardo de Vinci 32
Milano, ITALY

Dear Professor Natta:

I should like to present a paper at Milano entitled: "Ionic Polymerization. Chain Transfer in Ionic Systems", by C. G. Overberger and Gerard F. Endres.

This contribution is from the Department of Chemistry, Institute of Polymer Research, Polytechnic Institute of Brooklyn.

Enclosed you will find duplicate copies of a short abstract.

Sincerely,

C. G. Overberger

CGO:DL
Encls.

C. G. Overberger
Professor of Organic Chemistry
Associate Director of the Polymer Institute

cc: Prof. Mark
Prof. Nasini ✓

Milano May 4, 1954

Professor C.G.Overberger
Depmtment of Chemistry
Institute of Polymer Research
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1, New York

Dear Professor Overberger,

I was very glad to know that you will partecipate to the Symposium of Mawromolecular Chemistry, with a paper entitled: "Ionic Polymerization. Chain Transfer in Ionic Systems". I received the copies of the short abstract.

Enclosed you will find the second circular and the preliminary application form.

With best reggrds,, I am,

Sincerely,

(Prof.G.Natta)

Enclosures.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

April 29, 1954

Professor Antonio Nasini
Istituto Chimico Universita
Corso Massimo d'Azeglio 48
Torino, ITALY

Dear Professor Nasini:

I should like to present a paper at the conference in Torino entitled: "The effect of Alkyl Side Chains on the Transition Temperatures of Amorphous Polymers", by C. G. Overberger and H. Mark.

This contribution is from the Department of Chemistry, Institute of Polymer Research, Polytechnic Institute of Brooklyn.

Enclosed you will find duplicate copies of a short abstract.

Sincerely,

C G Overberger

CGO:DL
Encl.

C. G. Overberger
Professor of Organic Chemistry
Associate Director of the Polymer Institute

cc: Prof. Mark
Prof. Natta

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

April 27, 1954

Prof. G. Natta
Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo di Vinci 32
Milano, Italy

Dear Professor Natta:

Please find enclosed the abstract for a paper entitled, "Dye Sensitized Photopolymerization" by myself and G. Oster, for the Milano Meeting this Fall.

With kindest personal regards and best wishes, I am, as always,

Very sincerely yours,

H. Mark

H. Mark

HM:JB

Milano April 30, 1954

Prof. H.F.Mark, Director
Polymer Research Institute of
Polytechnic Institute df Brooklyn
99 Livingston Street
Brooklyn 1, New York

Dear Professor Mark,

I was very glad to reweive your paper entitled "Dye Sensitized Photopolymrization".

With my personal kindest regards and best wishes, I am,

Very truly yours,

(Prof.G.Natta)

P.S. I am very pleased to announce you that the partecipation to the Symosium is foreseen to be large enough, and that about 1[illegible] works are announced for the subjects to be presented in Milano.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

INSTITUTE OF POLYMER RESEARCH
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

January 27, 1954

Professor Giulio Natta
Istituto Chimica Ind. Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear friend:

I am enclosing 20 copies of the very interesting announcement of the Symposium in September/October, 1954. I shall see to it that it will be published in the Chemical and Engineering News and the Journal of Polymer Science. I have written Professor Nasini to kindly sent it to the Makromolekulare Chemie and to other European journals.

I shall also send out about 100 copies to the potential American contributors and shall submit to you a list of those to which it was sent.

Please accept for yourself and all members of your family my kindest regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

January 3, 1954

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Many thanks for your kind letter of December 23, 1954.

I am looking forward with great interest to the enlarged manuscript. Meanwhile, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:JB

INTERNATIONAL SYMPOSIUM ON MACROMOLECULAR CHEMISTRY

UNDER THE PATRONAGE OF THE COMMISSION OF MACROMOLECULAR CHEMISTRY OF THE

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

AND OF THE

ITALIAN NATIONAL RESEARCH COUNCIL (C.N.R.)

MILAN and TURIN - SEPTEMBER 30 th - OCTOBER 6 th, 1954

GENERAL SECRETARY BUREAU

Postal address: ISTITUTO CHIMICO UNIVERSITÀ
Corso Massimo d'Azeglio, 48 - TORINO

Telegr. address: Sympochimia Torino

Phones: 62.102 - 68.28.92

MILANO BUREAU

ISTITUTO CHIMICA INDUSTRIALE POLITECNICO
Piazza Leonardo da Vinci, 32 - MILANO

Phones: 23.08.79 - 29.21.25

Torino, 28 Aprile 1954

Dear Sir,

In order to keep our next Symposium on a conveniently high scientiphic plane, Prof. Natta and I, as executive commettee, have designed to invite a little number of well known macromolecular chemists to come and speak about their recent works on some of the items of our programs.

We then should be very glad if you could accept our invita= tion, considering also that our organisation commettee, as partial contribution to your expences, will supply you the sum of 50.000 lire (nearly 75 dollars) (half for the Milano Meetings and half for the Torino Meetings).

You will oblige us very much by giving us your reply as soon as possible.

Faithfully Yours

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

May 20, 1954

Professor Ing. Giulio Natta
Direttore Dell 'Instituto di
Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I presume that you are interested in the Gordon Research Conferences and I am, therefore, taking the liberty of sending you a complete program of all 30 Conferences.

With kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR
ENCL.

Torino 29 Aprile 1954

Chiar.mo Prof. Mark,

Molte grazie della Sua cortese lettera e del riassunto in essa contenuto. Speriamo che Le sia regolarmente pervenuto il plico con le 2e circolari.

Facendo seguito alle nostre precedenti comunicazioni e sulla base degli accordi intercorsi, abbiamo indirizzata la lettera allegata ai seguenti macromolecolisti:

-Desreux
-Kratky
-Bawn
-Smets
-Gee
-Muller (Marburg)
-Ziegler (Mulheim)
-Schultz (Mainz)

Come vede abbiamo riservato per ora l'invito con rimborso spese di soggiorno ai soli universitari. Per quanto riguarda eventuali inviti ad appartenenti all'industria, pensando che in genere essi partecipano ai Congressi a spese delle rispettive Società, credemmo di non attribuire loro la nostra modesta indennità, a meno di casi particolari, sui quali il Suo consiglio ci sarebbe molto gradito. Così pure, desiderando avere tra noi Flory e Stockmayer La pregheremmo di volersi informare se essi possono usufruire di qualche altra opportunità per le spese di viaggio, restando a nostro carico il rimborso delle spese di soggiorno (lire cinquantamila). Analogamente La pregheremmo di invitare Mesrobian e Overberger alle stesse condizioni, cioè con la nostra sola partecipazione al rimborso delle spese di soggiorno (lire cinquantamila).

Le saremmo molto grati se potrà rispondere con cortese sollecitudine alle nostre richieste e La chiediamo scusa per il continuo disturbo che Le rechiamo.

Cordialmente.

Prof. Antonio Nasini

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

July 26, 1954

Professor G. Natta
Direttore Dell'Instituto di
Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your very kind letter of July 19, 1954.

I have meanwhile submitted the complete manuscript of the paper of E.H. Immergut and myself on "The Degradation of Cellulose". The manuscript of the paper of G. Oster and myself on "Photopolymerization" is unfortunately not yet finished and I am afraid I shall not be able to submit it to you before the middle of August. In case this is too late, please take the paper off the program.

I am extremely sorry that we have failed to meet the dead-line but Dr. Oster has been charged unexpectedly with additional responsibilities and hence, had no time to prepare the paper. Please kindly excuse this! In the event that you should decide to take the paper off the program, I still could make a few short remarks during the discussion so that the general content of our work could be contributed to the Conference in this manner.

As far as my opening lecture goes, it will be a review paper and I don't think that it will be worthwhile to be published at all. However, I shall prepare an Italian manuscript and bring it with me to the Conference.

Please accept my sincerest thanks for your kind offer to assist me in the translation. Fortunately, we have here at our Institute, Dr. Prati from Milano, who has kindly consented to translate the English manuscript into Italian. As soon as the translation is completed, I shall send it to you for mineographing. This will probably be early in September.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

 July 26, 1954

I am most grateful to you for all your kindness.

Please accept from Mimi and myself very best wishes for your wife and yourself. Looking forward to seeing you, I am, with kindest regards,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

xx x
26 2

Milano August 6, 1954

Professor H.F.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1, New York

My dear Professor Mark:

I received your kind letter of July 26, and I thank you very much.

In regard to the manuscript of yourself and G.Oster, it will be accepted surely when presented and we shall do our best for its publication. If it don't arrive in time for preparing the preprints before the Symposium, it will be published in a special issue of "La Riverca Scientifica" that will be printed after the Symposium.

With Rosita's and my best wishes for your wife and yourself, I remain,

Yours sincerely,

(G.Natta)

xx x
26 3

Milano July 30, 1954

Prof. H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1, New York

My dear Professor Mark,

I am very glad to inform you that the papers accepted for the IUPAC Symposium have risen up to 82. Really the papers presented were more than that, but only the more interesting have been accepted.

The partecipants already inscribed are about 300, 250 of them are coming from abroad. I think that this number is susceptible of inceasing greatly, because of the people from industry and some Italians who usually send their applications at the last minute.

If you agree, we might hold the meeting of the IUPAC Commission on Sunday the 26 th of September at 3 p.m. at the Museo Nazionale della Scienza e della Teecnica - Piazza San Vittore - Milano. After the meeting we would like to invite the Commission on Macromolecules out for the dinner. But if that evening a councert is performed at the Scala theater, we could shift the dinner to the other day.

Regarding to the opening lecture, as there it is the possibility of having it trasmitted in several languages, you can speak in the language you prefer.

As the subject is: New Rubbers, Plastcs and Fibers, I hope if the patent situations will not forbid it to me, to be able to tell you about some completely new and very interesting high polymers, which recently have been prepared.

You might, if you think it worth, mention it in your opening lecture.

Looking forward to meet you, I send you and your kind wife, Rosita's and my best wishes, Sincerely yours - G. Natta -

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

July 13, 1954

Professor G. Natta
Direttore dell'Instituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

I am already in rather close touch with our good friend, Nasini about the Congress in September and October but I am anxious to write you personally to thank you on behalf of the Commission on Macromolecules for all the excellent work which you are doing in organizing the Meeting.

There is already tremendous interest for the Congress in this country and I presume that 30-40 American scientists will participate at the sessions. The program is most attractive and I am sure there will be a stimulating and vigorous discussion during all sessions.

Needless to say, I am looking forward with greatest pleasure to seeing you and your dear wife again. Please accept my kindest personal regards and best wishes from Mimi and myself. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

Milan July 19, 1954

My dear Prof. Mark,

in these days J wanted to write to you, but you preceded me with your kind letter of July 13.

My Milan friends and J are very glad that you will hold the opening lecture of the Symposium on Macromolecular Chemistry in Milan.

Prof. Nasini told me that you will speak Italian. I want to let you know that if you want, we shall be very glad to translate your manuscript from English to Italian.

It would be possible for us to prepare Italian and English copies to distribute before your lecture. Of course it is necessary I receive the manuscript well in advance.

The interest for the Symposium has overcome any expectation.

At the present time 80 communications have been announced and now we have difficulties to fit them within the time we despose for the communications and discussions.

So, it is necessary, that most of the works can be distributed beforehand as preprints. I have therefore telegraphed to the authors whose manuscripts have not arrived yet, to send them as soon as possible.

But if you really can not send your manuscript of the conference as soon it is necessary to prepare its preprints, we will find another solution expecially for you. We will make copies of your manuscript by cyclostile, what takes very little time to be done.

We are really looking forward to meet you and your wife here in Milan.

Rosita and J send you our best regards,

yours sincerely

(G.NATTA)

POLYTECHNIC INSTITUTE OF BROOKLYN

July, 1-1954

Professor A. Nasini

Torino

My dear Professor Nasini,

In connection with your kind letter of June 17th, I would like:

1) to suggest for my lecture on September 26, 1954 the title, "Nuove gomme, plastiche e fibre".
I shall prepare this lecture in Italian, shall need about one hour, a,d would like to project about 10 slides and show a number of samples.

2) to suggest for my lecture on September 30 in Torino the title, "Basi scientifiche della Unificazione delle Materie Plastiche"
I shall prepare this lecture in Italian, shall need about 20 minutes and show a number of samples and slides.

I am very glad to hear that good old Professor Staudinger is going to get the Honorary Degree from the University of Turin and I am sure he will be very happy about it. This is a very nice idea of yours.

The program of your Symposium looks most attractive and I am quite sure the meeting will be a great success.

Please accept, in the name of our Commission, the best wishes and many thanks for all your kind efforts. With kindest personal regards, I am, as always,

Very sincerely yours,

H. Mark

August 5, 1954

Professor A. Nasini
Instituto de Chimica
Generale dell'Universita
Corso Massimo d'Azeglio 48,
Torino, Italy

Dear Professor Nasini:

Many thanks for sending me all the necessary forms which I have filled out. I am enclosing herewith the applications and the money.

I am now working on my lecture and am looking forward with much pleasure to seeing you this Fall. In the meantime, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

HM:JB

August 12, 1954

Professor Ing. Manlio Muzzoli
Salone Internazionale Della Tecnica
Via Massena 20
Turin, ITALY

My dear Professor Muzzoli:

Very many thanks for your kind letter of August 3, 1954 and for the gracious invitation which you extended to me.

It will be a great pleasure and honor for me to participate at the Congress and I am sure that I shall profit a great deal from the Conferences and Discussions.

Looking forward to seeing you soon, I am, with kindest personal regards and best wishes, as always,

Very sincerely yours,

H. M.

HM:JB

H. Mark

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

September 10, 1954

Professor G. Natta
Direttore Dell 'Instituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of September 3, 1954. I am herewith enclosing copies of my biography and a copy of my list of publications.

Looking forward to seeing you, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:CR
ENCL.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

August 3, 1954

Professor G. Natta
Direttore Dell 'Istituto di
Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of July 30, 1954 concerning the Milano Meeting. I am very pleased to hear that there is so much interest for the Conference and I am sure that it will be most stimulating and pleasant.

I hasten to answer the various points of your letter:

1) I fully agree to hold the Meeting of the Commission on Macromolecules of IUPAC at 3:00 p.m. on Sunday, September 26th and I shall send out the program to all members immediately. It will only have two points:

a) Report of Dr. H.P. Frank on the "Investigation of several Polystyrene Fractions".

b) Discussion of the next meetings of the Commission (Freiburg (1955); (Rehovoth (1956).

2) Many thanks for your great kindness to invite the members of the Commission to dinner; I am sure everybody will greatly appreciate this countesy.

3) I would be very happy indeed if you could give me some informative news on new and very interesting polymers, which you have recently prepared. I shall be extremely glad to mention them together with the other things in my lecture.

Please extend very best wishes from mywife and myself to your wife. With kindest personal regards, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

October 12, 1954

Dear Member:

When I had the pleasure of continuing discussions on the 1955 Meeting of the Commission on Macromolecules of IUPAC with Professor Staudinger and Professor Signer, the idea was developed that it would be best if we would have our Symposium in Zurich immediately after the Congress of IUPAC, which takes place from July 21 to July 27, 1955.

Professor Signer (Bern) and Professor Hopff (Zurich) have kindly consented to take on the burden of organizing this meeting and they recommend to have two days (probably July 28 and 29) with comprehensive progress reports on "Progress in the Organic Chemistry of Macromolecules" (organized by Professor Signer) and "Advances in the Technology of Highpolymers" (organized by Professor Hopff).

As soon as our two colleagues have progressed in their work, I shall send on to you whatever information they will give me.

The business session of our Commission will take place earlier in the frame of the Meeting of the Union in Zurich, probably during the days from July 21-24.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H Mark

HM:JN

H. Mark
President,
Commission on Macromolecules
IUPAC

xx xx
26 2

Milano September 3, 1954

Professor H.F.Mark, Director
Polymer Research Institute of
Polytechnic Institute of Brooklyn
99 Livingstone Street
Brooklyn 1, New York

Caro Professor Mark,

Le saremmo grati se Lei potesse inviarci un "curriculum vitae" possibilmente con l'elenco delle Sue pubblicazioni e dei principali avvenimenti della Sua vita.

Ciò occorre perchè il Politecnico di Milano e la Società Chimica Italiana desiderano esprimerLe pubblicamente la gratitudine per l'opera da Lei svolta nell'organizzazione del Congresso e nello stesso tempo onorare l'imponente contributo da Lei apportato nel campo dei fondamenti della scienza delle Macromolecole.

Molti cordiali saluti.

(G.Natta)

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

October 11, 1954

Professor G. Natta
Direttore Dell 'Istituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

I would like to report to you that I have written letters of thanks to the following:

Dr. L. Morandi	Professor Cassinis
Dr. Giustiniani	Professor Battani
Dr. Emannelli	Ing. Ucelli
Count Dr. Camerana	Professor Pagani
Avocato Amades Peyron	Professor Rossi
Professore Ferrari	

May I thank you once more for all your kindness and assistance during my recent visit. Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

October 4, 1954

Professor G. Natta
Direttore Dell 'Istituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

I would like to take this opportunity to express my sincerest thanks to you for the very kind reception you gave me during my recent visit, for the very pleasant time I had, for the very interesting and stimulating discussions and for your most gracious hospitality.

I hope to have the opportunity of visiting you again in the not too distant future. Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

8 Novembre 1954

Chiar.mo Prof. H.F. Mark, Dir
Polymer Research Institut
Polytechnic Institut of
BROOKLYN 1, New York
Livingston Street 99

Caro Professor Mark,

La prego di scusarmi se ho tardato sinora a scriverLe per ringraziarLa per quanto Ella ha fatto per la migliore riuscita del Congresso di Milano e Torino.

Ho ricevuto, dopo il Congresso, un grandissimo numero di lettere di persone che vi hanno partecipato, le quali sono rimaste entusiaste della riuscita del Congresso, e ciò si deve in massima parte a Lei che ne è stato il massimo animatore.

Le scrivo anche per informarLa che, insieme ad un gruppo di amici Milanesi, abbiamo deciso di farLe coniare una medaglia in oro, riproduzione di quella che Le è stata assegnata dal Politecnico di Milano, ... naturalmente più piccola. Poichè vi possono essere difficoltà per la spedizione di un oggetto in oro, penseremmo di consegnargliela in forma privata nella Sua prossima venuta in Italia, oppure di portargliela a New York, quando qualcuno di noi avrà occasione di venire in America. L'informo anche che è già stata spedita la medaglia in bronzo del Politecnico.

Non so se Lei è già stato informato che la Signora Nasini ha dovuto subire un intervento chirurgico giovedì scorso. La ha operata il Prof. Fasiani che è il miglior chirurgo italiano. L'operazione è andata bene, ma il Prof. Nasini è stato ed è tuttora molto in apprensione.

Colgo l'occasione per inviarLe molti cordiali saluti.

(G.Natta)

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

September 13, 1954

Professor G. Natta
Direttore Dell 'Istituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

I would like to take this opportunity to express my many thanks to you for the great honor which is being conferred upon me by the Politecnico Milano and the Societa Chimica Italiana. Of course, I am most happy and honored to accept.

I am looking forward to seeing you soon. In the meanwhile, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

HM:CR

November 9, 1954

Professor H.F.Mark, Director
Polymer Research Institut
Polytechnic Institut of
BROOKLYN 1 - New York
99 Livingston Street

Dear Professor Mark,

I should be very grateful to you if you can inform me about the minimum time necessary for the publicationof one or two letters to the editors, on the Polymer Science. I should like also to know if it is possible to get some reprints without delay, or rather, before the issue publication. Publication date of these letters may be very important for some of my co-workers, and, therefore, I should beg you to inform me if, on sending the letters in december, it is possible to get reprints within a month at the latest.

Excuse me if I am profiting by your kindness. With many thanks and very best regards, I remain,

Very truly yours,

(G.Natta)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

November 16, 1954

Professor G. Natta
Istituto di Chimica Industrale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

Many thanks for your kind letter of November 9, 1954 with reference to submitting a manuscript for the Journal of Polymer Science.

A Letter to the Editor can, at the present time,, appear two months after the manuscript is sent in, if all proofs are read here and the reprints cannot be given out before the article actually has appeared in print. This is a general regulation of all scientific journals which, unfortunately, we cannot change.

I am very osrry that it cannot be done more quickly and, if you send in the manuscript, I shall do my best to rush it through. Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

HM:JB

H. Mark

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

November 16, 1954

Professor G. Natta
Direttore Dell Istituto di Chimica Industriale
Del R. Politechico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Many thanks for your kind letter of November 8, 1954.

I wish to thank you also for your very great kindness and for all your most gracious attitudes.

Please kindly keep the small medal in Milano; I shall be very glad to pick it up next year when I come to Italy. I hope to have the privilege at that time to reiterate my thanks to you and your colleagues by another lecture.

I am very sorry to hear that Mrs. Nasini had to undergo an operation and I have immediately written Professor Nasini, expressing best wishes from my wife and myself.

I am looking forward to seeing you next year. In the meanwhile, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

December 16, 1954

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Many thanks for your kind letter of December 9, 1954. I hope we shall find someone who can translate the paper. I shall let you know, as soon as I do.

Please accept my best wishes for a Merry Christmas and a Happy New Year. As always, I am,

Very sincerely yours,

H. Mark

HM:JB

H. Mark

23 Dicembre 1954

Prof. H.F.Mark, Director
Polymer Research Institute
Polytechnic Institute of
B R O O K L Y N 1, New York
99 Livingston Street

Dear Professor Mark,

I thank you very much for your kind letter of December 16 and, assoon as you let me know if you found the translater of my paper, I shall send you the manuscript. At present, I might send you only the manuscript presented at the "Accademia Nazionale dei Lincei" on December, but, about January 10, I might let you have the paper enlarged with new data, so that it seems different from that presen= ted at "Lincei".

I reciprocate your good wishes for a Merry Christmas and a Happy New Year. With my best personalere= gards, I am,

Very sincerely yours,

G.NATTA

December 9, 1954

Prof. Herman MARK
Polytechnic Institute of
B R O O K L Y N - New York
99 Livingston Street

Caro Professor Mark,

Le invio copia di una lettera che ho scritto al Prof. Paul Doty, relativa ai lavori che vorrei inviare per il Suo anniversario.

Si tratta di lavori che ritengo possano incontrare molto interesse tra chi si occupa di macromolecole. Ha Lei la possibilità di farli tradurre da qualcuno dei Suoi collaboratori?

Colgo l'occasione per inviarLe molti cordiali saluti ed auguri per il nuovo anno.

(G.NATTA)

Cable Address: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

Presidente

I

July 9, 1954

Professor Antonio Nasini
Professor G. Natta
Executive Committee of the
International Symposium on
Macromolecular Chemistry

Gentlemen:

We would like to make the following proposal for the distribution of the Symposium containing the lectures presented at the meeting in Milano-Torino from September 26 to October 2, 1954.

The Symposium volume will be published as a special issue of Ricerca Scientifica. It will comprise 600-700 pages and will have a list price of from 8000 to 10,000 Lire.

Interscience Publishers, Inc., will act as sole distributors for this Symposium throughout the world with the following exceptions:

1) Italy
2) Fifty-[illegible] free copies will be presented to the International Union of Pure and Applied Chemistry
3) The subscribers to Ricerca Scientifica will receive the Symposium volume as part of their regular subscriptions.

The title page of the Symposium will carry the following imprint:

Distributed by
Journal of Polymer Science
(Interscience Publishers, Inc)
250 Fifth Avenue
New York 1, N.Y.

Interscience will advertise the Symposium in its Journal of Polymer Science and in its catalogs and announcements to scientists, libraries, and the book trade.

Interscience will take care of the inclusion of the Symposium into the normal bibliographies.

Interscience will provide a list of journals to which review copies of the Symposium should be sent. In sending review copies, the Journal of Polymer Science, as distributors of this Symposium, should be mentioned.

Interscience will make a special mailing to all subscribers to the Journal of Polymer Science and the Resins, Rubbers, Plastics Abstract Service announcing the publication of the Symposium.

Interscience will purchase from the National Research Council, or whatever agency be designated by the Executive Committee of the International Symposium on Macromolecular Chemistry, copies of the Symposium at a discount of 50% of the Italian list price and will reimburse the Council for postage.

The procedure for receiving of orders, dispatching of copies, and making of payments, will be handled as follows:

a) Interscience Publishers will establish a list price in U. S. A. dollars which will be commensurate with the Lira price of the Research Council and will list the dollar price in all its announcements.

b) After receipt of an order, Interscience Publishers will bill the customer at the dollar list price and will note on the bill that the copy of the book will be dispatched directly from Italy

c) Interscience Publishers will send a duplicate of this invoice to the National Research Council, or to such other place as will be designated by the Executive Committee.

d) The Research Council will dispatch to the address stated on the Interscience invoice a copy of the book.

e) The Research Council will send a bill to Interscience Publishers charging 50% of the list price plus postage, and show the Interscience invoice number and the name of the receiver of the parcel.

f) Interscience Publishers will make payment for the bills every three months to the Research Council.

In case the Research Council should receive orders directly from territories other than Italy, it will transfer such orders to Interscience Publishers.

Interscience will receive an approximate estimate of the postage for the dispatch of one volume from Italy to the United States.

We hope you will agree to all points of this arrangement and we would appreciate receiving a communication from you to that effect.

Very sincerely yours

INTERSCIENCE PUBLISHERS, INC.

E. J. Proskauer
Editor-in-Chief

ESP/kd

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

November 24, 1954

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your kind letter of November 15 informing me that reprints of the International Symposium will be distributed in the United States by the Interscience Publishers, Inc. I have already given them my order.

I am preparing to leave for California in about two weeks, but expect to come to Europe some time in April or May of next year, and I am looking forward to visiting you then.

With kindest personal regards to Mrs. Natta and yourself,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH:EC

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

November 8, 1954

Prof. G. Natta
Politecnico di Milano
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta:

I have heard with great interest from the accounts of Professors Mark, Eirich and Mesrobian about the excellent meeting which you and Prof. Nasini have organized in Milano and Turino, respectively. I wish I could have been there and participated in the lectures and discussions but, unfortunately, the only time that I had this year for my trip to Europe was in the Spring. Right now I am busy preparing for my transfer to San Francisco where, as I have told you before, I intend to settle permanently and be connected with the University of California.

The purpose of this letter is to ask you whether you would be kind enough to send me a set of as many reprints as are available. Professor Eirich has loaned me his set of reprints but I had only time to very hastily go through them. Since I would like to incorporate these lectures into my reprint file I would appreciate it very much if you could send them to me.

Hoping that you and your family are well, I remain, with kindest personal regards,

Sincerely yours,

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH:EC

Grazie a Vi quella lettera che ho appreso dalla Vi cara intervenzione in Le Francia e vi auguro che nella Vi nuova residenza possiate trovarvi bene e raggiungere ~~[illegible]~~ importante.

Per quanto riguarda ~~[illegible]~~ iniziativa del congresso Vi informo che, per ~~[illegible]~~ tempo vorrei pubblicare ~~[illegible]~~ e mandarvi in visione

I volume comprendente tutti i lavori e le memorie presentate al congresso ~~[illegible]~~ Pubblicazione che sarà molto rilevante

November 15, 1954

Prof. W. P. Hohenstein

Department of Chemistry
Polytechnic Institut of

BROOKLYN 2, NewYork
(99 Livingston Street)

Dear Prof. Hohenstein,

I received your kind letter of November 8, and I wish your new residence in S.Francisco be very satisfactory for you and allow you to develop very interesting studies.

In regard to the reprints of International Symposium, I inform you that the results was incomplete and have been already distributed. However in a short time, they will be published in a special issue of the "Ricerca Scientifica" , including also discussions; this issue will be distributed, in the countries out of Italy, by the Journal of Polymer Science, Interscience Publishers Inc., and will be very interesting.

With kindest personal regards, I am,

Very sincerely yours,

(Prof. G. Natta)

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

March 10, 1954

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

It gives me great pleasure to inform you that I will leave for Europe on March 24 and probably shall come to Milano sometime during the first week in May. I hope that you will be there at that time and am looking forward very much to having a pleasant chat with you.

Please do not hesitate to write me if I can do anything for you before my departure, or during my stay in England. You can reach me in England until April 9 at the Berkeley Hotel, Berkeley Street, London, W. 1.

With kindest personal regards to Mrs. Natta and yourself,

Sincerely yours,

Walter P. Hohenstein

W. Peter Hohenstein
Professor of Polymer Chemistry

WPH:EC

March 15, 1954

Prof. W. Peter Hohenstein
Polytechnic Institute of Brookly
Department of Chemistry
99 Livingston Street
Brooklyn 2, New York

Dear Professor,

I received with great pleasure your letter of March 10, and I shall be very glad to see you in Milano during the first week in May.

I should be very grateful to you if you can bring us some Zimm-Myerson osmometric membranes of Teflon or other materials that can be appeared better. These membranes is to be employed for misurations with polythene or, however, for misurations at high temperatures.

Kindly excuse my troubling you. With my thanks and my kindest regards, I remain,

Very truly yours,

(Prof. G. Natta)

BROOKS'S,
ST. JAMES'S STREET, S.W. 1.
TEL. HYDE PARK 3745/6.

19/9/54

My dear Professor Natta,

I want to report to you that I shall arrive in Milano early in the morning of Sunday September 26 (Hotel Principe e Savoia) and shall be at the Museo at 9:00 am. For my lecture I need

1) A slide projector for slides 8 x 10 cm. and a pointer

2) A blackboard, as large as possible with chalk and eraser

3) A table to deposit the samples which I want to show.

I am looking forward with very great pleasure to see you and your wife again and I remain yours most cordially

H. Marx

HOTEL BAUR AU LAC ZURICH
ADRESSE TÉLÉGR.: BAURLAC · TÉLÉPHONE: (051) 23 16 50
PROPR. H. KRACHT'S ERBEN

6/27/54

Professor Julio Natta
Via Mario Pagano
Milano, Italia

My dear Professor Natta :-

You undoubtedly heard from the Reti's that we went to Germany with them and had 2 days together at Wiesbaden. We have since then been in Israel and are now leaving again for Germany.

Among your numerous publication which you were kind enough to give me there was one pertaining to Oxydation reactions and you pointed out in particular 2 reactions yielding H_2O_2 which you wrote out separately on a piece of paper. I seem to have misplaced this particular pamphlet and I would greatly appreciate if you could mail me another copy care "Dow Chemical International Ltd, Claridenhof, 21 Dreikoenigstrasse, Zurich.

We expect to return from Germany to Zurich about 2 - 3 week and after a few days in Zurich till

HOTEL BAUR AU LAC ZURICH
ADRESSE TÉLÉGR.: BAURLAC · TÉLÉPHONE: (051) 23 16 50
PROPR. H. KRACHT'S ERBEN

leave for the United States.

My wife and I take this opportunity to thank Mr. Natta and yourself for your kind hospitality during our stay in Milano. We hope we may reciprocate some day in the U.S. Should you contemplate such a trip in the future, please notify me in advance and I shall do my best to assist you in obtaining a visum.

My wife joins me in sending Mr. Natta and yourself our very best wishes.

Cordially yours

L. Hirschkind

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DIVISION OF
APPLIED PHYSICS

August 26, 1954
via airmail

Professor Guilio Natta
Politechnic di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

A former student of Professor Mark and mine, Dr. Herman S. Kaufman, is going to be in Italy during October. He is now and for several years has been doing research work in x-rays; more recently on the physical properties of high polymers at M. W. Kellogg Company. He is/in Europe /to be primarily for consultations in Germany but since he will be visiting Italy and because I know he would very much like to visit your laboratories, I wonder if you would be interested in having him lecture (in English) at your University.

Dr. Kaufman is an extremely fine lecturer and could give exciting lectures on many subjects, e.g. structural and physical properties of Kel-F (poly-trifluoromonochloroethylene). He has been particularly interested in coordinating x-ray structures with physical properties, e.g. melting point, hardness, tensile strength, etc.

As his schedule now stands, Dr. Kaufman will be in Italy the week of October 18. I am writing similar letters to Professor Giacomello and Professor Bezzi and would like to suggest that if you and they are interested you coordinate things and communicate with me. Dr. Kaufman is to leave the States the end of September so I will appreciate it if you could let me know fairly soon.

My family and I enjoyed our visit with you so much that we are eagerly looking forward to our next visit in the not too distant future. With kindest regards, in which my family join me, I am

Sincerely yours,

I. Fankuchen

PAUL H. EMMETT
~~115 YORKSHIRE ROAD~~ 1061 Lindendale Drive,
PITTSBURGH 12, PENNSYLVANIA

October 10,1954.

Professor G. Natta,
Institute of Chemical Industry,
Milan, Italy.

Dear Professor Natta:

I am expecting to receive your chapter on methanol synthesis almost any day. Dr. Colombo wrote me in August that it would soon be on its way. Thanks a lot. I know it has been hard for you to find time to cover this work and I greatly appreciate your efforts.

I would like to tell you something as to the revised time schedule for publication. Volume II covering the fundamentals of catalysis is now in the process of being "page-proofed" and should be published by the end of the month. Volume III which will contain your chapter on Methanol synthesis will be ready for the printer by December 1,1954, I hope. Only your chapter and two others out of 11 still are outstanding and not yet received. Vol. IV which should include the work on oxosynthesis that Dr. Orchin is covering and your chapter or chapters on the items listed in my letter of February 26,1953 (other than the items that will be included in your methanol chapter) I hope to have in my hands by the first of January, 1955. If, therefore, you will try to get your material in shape and send it to me by that time I would greatly appreciate it.

I realize that with all the work you have to do it may turn out that you will not be able to do as much writing as you originally planned. If you cant cover as many of the topics as you originally planned then I would suggest that you cover whichever items are most nearly ready and let the rest go. In your letter of May 6,1953 you mentioned that the "second chapter covering the synthesis of esters and amides from CO , olefins, and alcohol, and the synthesis of acids and esters from CO,alcohols and ethers" was about ready. I hope that this "second chapter " is therefore in shape.Dont worry if it is written in Italian. I shall get it translated here. If chapter III mentioned in your letter of May 6, 1953 on the "hydrogenation of acids and esters" is ready I shall be glad to get it. However, I wont be able to hold volume IV after about January 1 so shall have to publish at that time with such material as is available.

Again I want to thank you for you cooperation.

With kindest personal regards, I am

Sincerely yours,

Paul H. Emmett

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Harvard University
Department of Chemistry
12 Oxford Street
Cambridge 38, Massachusetts

September 23, 1954

Professor G. Natta
Istituto di Chemica Industriale del Politechnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Professor Natta:

The plan of publishing a 60th Anniversary Volume in honor of Professor Mark which I wrote you about in July has met with the approval of the forty-five people I have contacted. Nearly everyone has replied with the statement of intention to contribute an article.

I am writing now to obtain an accurate estimate of the number of articles to be expected, their approximate size, and estimated date of receipt. This has become necessary because of the additional work which a publication of a special issue of this size places on the publisher's facilities. Moreover, the magnitude of this venture has forced the moving up of the final closing date from the end of December to December 1. It is hoped that this change will not be inconvenient or cause a change in plans to submit an article. Indeed, an earlier receipt would be appreciated.

Several persons have inquired concerning the nature of articles desired. Because of the short time available for preparing the manuscripts, it is likely that the majority of articles will be of the type usually submitted by the respective authors. However, since these articles will represent a gesture of best wishes to Professor Mark, it would not be inappropriate to use this opportunity to publish an article that is of a more speculative or discursive nature than that ordinarily found in Journal articles. Moreover, in view of the response to suggestions of this special issue, it would be desirable if each article could be limited to about 15 typewritten pages. However, these remarks represent only our suggestions; your own judgment in this matter is most important.

It would be most helpful if you could provide the information requested on the enclosed card by return mail.

Very sincerely yours,

Paul Doty

Paul Doty

PD:EW
Enclosure

Department of Chemistry
HARVARD UNIVERSITY
12 Oxford Street
Cambridge 38, Massachusetts

July 26, 1954

Dr. G. Natta
Politechnico
Milano, ITALY

Dear Dr. Natta:

Professor Herman Mark will have his sixtieth birthday on May 3, 1955. In view of his substantial and wide-ranging contributions to our scientific life, particularly in the community of polymer chemists, a number of his friends have suggested that it would be appropriate to dedicate a special issue of the JOURNAL OF POLYMER SCIENCE to him on that occasion. I am, therefore, writing you of this suggestion in the hope of finding your reaction to it and, if it is favorable, to ask if you would consider setting aside an appropriate article for such an issue. If the plan does have wide acceptance and is activated, it would be necessary to have the manuscripts by the end of December in order to proceed on schedule.

Looking forward to your reply, I am

Sincerely yours,

Paul Doty

Paul Doty

PD:EW

September 16, 1954

Professor I.FANKUCHEN
Division of Applied Physics
Polytechnic Institute of Broo
B R O O K L Y N 2, New York
99 Livingston Street

Dear Professor Fankuchen,

I received your letter of August 26, and I am very glad to know that your wife and you will return in Italy in a next future. I hope that , in such an occasion, also my wife will be in Milan and she will be very glad to make your wife's acquaintance.

In regard to Dr. Herman S.Kaufman, I shall make his acquaintance with great pleasure, if he has the opportunity of coming in Milan when I am here, and I shall be grateful to him if he will pay a visit to me, since we are very interested in his work. Unfortunately, I shall be away the almost entire month of October, first in Strasburgo, then in Essen and after in Napoli. It is probable, however, that I stay in Milan some days after the October 20, but I am afraid it is no possible to organize a conference at the Italian Chemical Society.

My wife join me in sending your wife and you best personalrregards,

Very sincerely yours,

(G.Natta)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

DEPARTMENT OF CHEMISTRY

October 14, 1954

Professor G. Natta, Director
Polytechnic Institute of Industrial Chemistry
P.za Leonardo da Vinci
Milan, Italy

Dear Professor Natta:

This is briefly to confirm our conversation, according to which it will be a privilege for us to invite you to participate in the Centennial celebrations at the Polytechnic Institute of Brooklyn.

Please consider this as an advance note. There are various questions which have to be settled, but I will do my best to forward a formal invitation to you soon.

With many more thanks for all the courtesies and considerations we received at the occasion of the recent meetings in Milano and Turino, and with kindest personal regards,

Yours sincerely,

Frederick R. Eirich
Professor of Chemistry

FRE:c

C O P I A

Polytechnic Institute of Brooklyn
99 Livingston Street - Brooklyn, 1, N.Y.

Department of Chemistry

October 14, 1954

Professor Natta, Director
Polytechnic Institute of Industrial Chemistry
Piazza L. Da Vinci 32
Milan, Italy

Dear Professor Natta:

This is briefly to confirm our conversation, according to which it will a privilege for us to invite you to partecipate in the Centennial celebrations at the Polytechnic Institute of Brooklyn.

Please consider this as an advance note. There are various questions which have to be settled, but I will do my best to forward a formal invitation to you soon.

With many more thanks for all the courtesies and considerations we received at the occasion of the recent meetings in Milano and Torino, and with kindest personal regards,

Yours sincerely,

f. to

Frederick R. Eirich
Professor of Chemistry

November 23, 1954

Professor Frederick R.Eirich
Department of Chemistry
Polytechnic Institut of Brookl;
99 Livingston Street

B R O O K L Y N 1, New York

Dear Professor Eirich,

Please excuse me for the delay in answering to your kind letter of October 14.

I thank you very much for your kind invitation to participate in the Centennial celebrations at the Polytechnic Institut of Brooklyn. It will be a great pleasure for me, if I may come to the United States.

With kindest personal regards, I remain,

Very sincerely yours,

(Prof.Natta)

January 13, 1955

Prof. Paul H. Emmett
1067 Lindendale Drive
PITTSBURG 14, Pennsylvania, U.S

Dear Professor Emmett,

Please excuse me for the delay in replying to you and in s ding you the manuscript on the methanol synthesis. I told to Dr. C lombo to explain to you that I was very busy, during the last year with very important works, so that I was obliged to suspend the on concerning the other manuscripts that I hoped to be able to send y as thay were already partially written last year. As these argumen are not particularly important now, I think it will not be a great inconvenient if the last volumes of your work lack of them.

In regard to the synthesis of superior alcohols and of met alcohol from CO and H_2 (a process that had a remarkable importanc before and during the war, but that lost now practical importance) I gave the manuscript to be translated to Dr. Colombo. It could ev tually be added to the one concerning the methanol synthesis, a a final chapter.

The synthesis of esthers from CO and olefines could be red to a brief chapter to be added to the oxosynthesis. As Doctor Orch wrote the oxosynthesis chapter, you can consider the opportunity to him all the information about our new progresses in that field, ir the course of being published.

My Institute had a great development during last year and at the present, almost forty chemists and engineers are working he in the research field. Of course, I am completely absorbed in foll wing their works.

Last march, we succeeded in synthesizing a new class of ma cromolecules, that we designed as "isotactical polymers". In the c se of alfa-olefines polymers, as CH_2-CHR-CH_2-CHR-, we succeeded i producing polymers of moleculer weight of 2.000-1.000.000; contai long series of asymmetric carbon atoms in the principal chain hav the same steric configuration. Our time is completely absorbed in dying their properties, compared with those of normal polymers wh

./.

January 13, 1955

Prof.P.H.Emmett - Pittsburg - Pa.

have a statistical distribution of asymmetric carbon atoms. Particularly, the study of the catalysts that have the synthesis made i such direction, seems to be remarkably interesting.

We are publishing now the characteristics of new products. In regard to the preparation methods, on the contrary, we shall be to begin their publication on next Summer, because patents are per In the case that this particular type of catalysis, allowing to ol the chains of carbon atoms with the same steric configuration, is some interest for a volume of your work, we could send you a manuscript on this argument for the end of this year.

With kindest personaleregards, I am,

Very sincerely yours,

G.Natta

August 4, 1954

Dr. Paul Doty, Department of Chemis
Harvard University
12 Oxford Street
CAMBRIDGE 38, Massachussets

Dear Dr. Doty,

I received your letter of July 26, concerning the suggestion of dedicating a special issue of the JOURNAL OF POLYMER SCIENCE to the Professor Herman Mark.

In this time I am very busy because I have to prepare two conferences for the forthcoming Symposium International on Macromolecular Chemistry and another for a Congress in Strasbourg, but I hope very much to have the time to prepare an appropriate article for such an issue and to send you the manuscript by theend of December, ~~if the [illegible] have [illegible] acceptance, as I think~~.

With my best regards, I remain,

Yours very truly,

(Prof.G.Natta)

December 9, 1954

Prof. Paul Doty
Department of Chemistry
Harvard University
Cambridge 38, Mass.

Dear Sir,

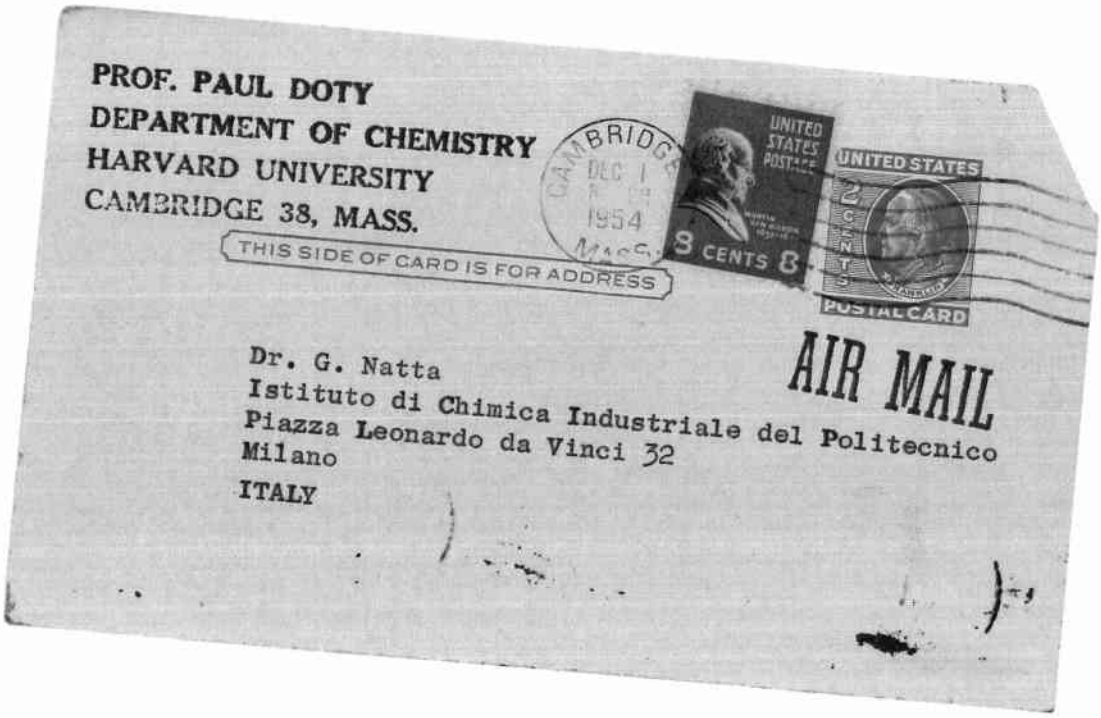
I received your letter of December 1. I have ready two italian-written works, the one on a new polymer-class of -olefines, the other on the structure of crystalline polypropylene, that I already presented thethe "Accademia dei Lincei". I can send you the same work in a shorter form adding some considerations on the structure of crystalline polystyrane and polybutylene. I think they will be of graat interest aldo for english-speaking people. I am finding some difficulties now to get my papers translated in english. It is possible to pubblish it in italian or in frenc If you may allow them to be translated in America, please telegraph to me and I can send you them immediately.

With my best regards, I am;

Very truly yours

Prof.G.Natta

America
1954-1955



PROF. PAUL DOTY
DEPARTMENT OF CHEMISTRY
HARVARD UNIVERSITY
CAMBRIDGE 38, MASS.

THIS SIDE OF CARD IS FOR ADDRESS

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano
ITALY

AIR MAIL

Dear Sir:

Unfortunately, we have not received your manuscript which you were planning to contribute to the Mark Anniversary issue. We can accommodate a few delays of a week or two but the number of manuscripts not yet received is large enough to endanger the timing of this project. If your manuscript is not already in the mail, could you let us know at once when you plan to send it.

Sincerely yours,

Paul Doty

December 1, 1954

666
America

AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EXECUTIVE SECRETARY

ALDEN H. EMERY
EXECUTIVE SECRETARY

REPUBLIC 7-5300

WASHINGTON 6, D.C.
1155 SIXTEENTH ST., N.W.

November 3, 1955

Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32,
Milano, Italy

Gentleman:

We were very sorry to learn of the death of Prof. Mario Levi from your letter of October 27, 1955. Prof. Mario Levi was a respected member of the American Chemical Society for many years.

In order that we may close our records, we would appreciate having the enclosed card comlpeted and returned to us.

Sincerely yours,

AMERICAN CHEMICAL SOCIETY

Mrs. H. Tesluk

Mrs. Helen Tesluk
Mailing List Department

completato e spedito il 11.11.55

788

Ans.

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL LABORATORY
MURRAY HILL, NEW JERSEY
CRESTVIEW 3-6000

November 17, 1955

DR. GIULIO NATTA
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, ITALY

Dear Dr. Natta:

I was delighted to hear through your letter of November 10, that you have accepted our invitation to attend the Gordon Research Conference on Elastomers in 1956 and to present a paper. I shall leave up to you the subject matter of this lecture, since I am sure any work which you feel appropriate for the elastomers conference will be well received.

It is customary for us to allow a total of one and one-half hours for a given talk, and the speaker usually consumes an hour of this in his lecture and leaves 30 minutes for general discussion. Since the audience consists entirely of people who are interested in the field, discussions are usually quite lively and this is one of the greatest values of this conference.

In due course, please let me know the title which you prefer to use for your talk. Again let me say that I am extremely pleased that you are coming and look forward to meeting you.

Very truly yours,

B. S. Biggs

B. S. BIGGS

BSB:MES

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL LABORATORY
MURRAY HILL, NEW JERSEY
CRESTVIEW 3-6000

693
Am.

November 1, 1955

DR. GIULIO NATTA
Isituto Chimico del Politecnico
Piazza Leonardo Da Vinci 32
Milan, ITALY

Dear Dr. Natta:

Dr. Overberger of the Brooklyn Polytechnic Institute, who is Chairman of the Gordon Research Conference on High Polymers for 1956, has told me that you are coming to America next summer to participate in the program of that conference which is held early in July. I am Chairman of the Gordon Research Conference on Elastomers which is to be held during the week of July 30 to August 3. We would be greatly honored and most appreciative if you could see fit to prolong your visit to that time and participate in the Elastomers Conference. Reports of your research have attracted great attention in America and the synthesis of cis polyisoprene is particularly of interest to all who are involved in rubber research. It would be very appropriate for you to appear at the Elastomers Conference and give a lecture on your current research.

As you probably are aware, the membership of these research conferences is limited to approximately 100 people. The High Polymer conference each year has to turn away many who would like to participate. It is clear, therefore, that your appearance at the Elastomer Conference would in no way detract from the interest or attendance at the High Polymer conference and would in fact make it possible for twice as many people to meet you and hear your lecture.

I look forward to hearing from you, and I am most hopeful that you will consent to attend the Elastomer Conference.

Very truly yours,

B. S. Biggs

BSB:MES

B. S. BIGGS

BREA CHEMICALS, INC.
SUBSIDIARY OF UNION OIL COMPANY OF CALIFORNIA
RESEARCH CENTER
BREA, CALIFORNIA

G. S. SCHAFFEL
MANAGER OF RESEARCH

April 18, 1955

BCRD-214

Dr. Bartolomeo Orsoni
Montecatini
Societa Italiana per L'Industria
Chimica E Mineraria
Milano, Italy

Dear Dr. Orsoni

I was extremely disappointed to receive your cable stating that a discussion on your polypropylene development is presently premature. I would like to further clarify our situation in this regard, in order to convince you that further discussion should take place.

We have been conducting research on propylene and propylene polymers for some time, since our company has access to large quantities of this raw material. Therefore, when we first heard of Professor Natta's discovery in this field, we felt that a discussion at a scientific level would be desirable. When I called Professor Natta, he told me that it would be necessary to have the approval of Montecatini. I fully realize that this process has not been developed to a stage where manufacture and licensing can be considered. However, I do feel that it would be desirable for us to conduct discussions concerning the methods and techniques involved. This would serve to expedite our own research and help us to provide new information which could be shared with your research organization. Obviously, if this information led to a process from which we could obtain profit, we would be happy to share those profits with you also.

For this reason I earnestly request that you give further consideration to the desirability of discussing this matter with us further. As I mentioned to you in my cable, I am prepared to come to Milano for such a discussion. I sincerely feel that such a conversation would be of great benefit to both Montecatini and to our own organization. Even though this appears to you now to be premature, I feel that from a research standpoint it is both necessary and desirable.

I have heard many fine things about you from your many friends in the United States. I hope to be able to meet you personally soon, and have the pleasure of an interesting discussion.

I hope that this proposal will meet with your approval and that you will see fit to invite me to meet with you and your associates at the earliest possible time.

Sincerely yours,

G. S. Schaffel

Dr. G. S. Schaffel
Manager of Research

GSS:je
cc: G. Natta

UNIVERSITY OF CALIFORNIA

RADIATION LABORATORY
BERKELEY 4, CALIFORNIA

America

April 19, 1955

Professor Giulio Natta
Instituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Many thanks for the two reprints which came this morning. I find them very interesting indeed, and I am very much impressed with the detailed information that you have been able to get about the structure of these crystalline isotactic polymers.

Greetings and very truly yours,

Melvin Calvin

Melvin Calvin

MC:nw

ORGANISCH CHEMISCH
LABORATORIUM
DER RIJKSUNIVERSITEIT

Hugo de Grootstraat 25
Telefoon 26457 – Leiden

490
America

LEIDEN, October 6 1955

Prof.Dr G.Natta,
Istituto di Chimica Industriale
del Politecnico,
Piazza Leonardo da Vinci 32,
Milaan, Italië.

Dear Professor Natta,

I have all three of your letters here in Leiden now and I am pleased to learn that you will be in Milan at the week following Monday November 21. Perhaps the best dates to set which would be least likely to cause difficulties would be Tuesday and Wednesday November 22 and 23.
In all probability we would arrive in Milan on Monday the 21rst. I hope this will be agreeable to you.
As for your proposal to a seminar in your institute I should be pleased indeed to give a seminar, but I am afraid that what I have to say about isotopes would not yet be directly about the problems you are interested in but only about methods which could be applied to your problems. I could also discuss such things as metal coordination chemistry which would also be of interest to you.
Perhaps we can delay this decision until we meet.

Very truly yours,

Melvin Calvin

M.Calvin.

October 27, 1955

To the
American Chemical Society
Office of Executive Secretary
1155 Sixteenth St., N.W.
Washington 6, D.C.

Dear Sirs,

We are very sorry to inform you that our Director, Prof. Mario Giacomo Levi, is dead some months ago.

His family does not wish to keep the insdiption to the American Chemical Society, and, therefore, we are sending you, enclosed herewith, the bill you sent to Prof. M. G. Levi.

With best regards,

Very truly yours,

Encl.

September 21, 1955

Prof. M. Calvin
c/o Prof. E. Havinga
The Chemistry Dept. - University
L E Y D E N - Olanda

Dear Prof. Calvin,

Doctor Pino told me that he met you in Monaco and inform me that you will be in Milan between November 20 and 23, 1955. I think I shall be in Milan during that period and I shall be very glad to meet you and to have the pleasure to dine with Mrs. Calvin and you at my home, one evening.

On the occasion of your visit, I shall be grateful to you if you will be able to held a seminary in my Institut on the subject you prefer. For us it will be of interest, for instance, to discuss problems concerning the use of radioactive carbon in the study of mechanism of reactions in general, particularly of polymerisations.

Please let me know as soon as possible, the exacte date of your coming so that I may examine the possibility to invite you to held a lecture at the Milan Section of the Italian Chemical Society.

Prof. Pino joins me in sending you the best personal regards. Hoping to hear from you soon, I am,

Very sincerely yours,

Giulio Natta

September 30, 1955

Prof. Melvin Calvin
c/o Chemistry Institute
of the University
L E Y D E N - Olanda

Dear Professor Calvin,

Thank you for your letter of September 23, you sent me from Bonn. On September 21 I wrote you a letter to your address of Leyden and our two letters crossed each others. I hope you received my first letter, and in any case, I am enclosing herewith a copy of it.

I confirm you that the Milan Section of the Italian Chemical Society is very honoured to invite you to held a lecture during your stay in Milan.

Looking forward to seeing you in Milan, I am sending you best personal regards,

Very sincerly yours,

Giulio Natta

Encl.

1932
Amicine

October 19, 1955

Prof. Melvin Calvin
Organisch Chemisch Laboratorium
der Rijksuniversiteit
Hugo de Gootstraat 25
L E I D E N = Olanda

Dear Professor Calvin,

I received your kind letter of October 6, and I am looking forward to seeing you in Milan on Monday November 21. As to the argumento for seminar in my Institute, I should propose " Possibility of applying isotopes to study organic reactions mechanism", and eventually, taking into particular consideration catalytic reactions and polymertizations.

Awaiting the pleasure of meeting you, I send you my best personal regards,

Very sincerely yours

(G. Natta)

November 10, 1955

Dr. B.S. Biggs
Bell Telephone Laboratories
Murray Hill Laboratory
Murray Hill, New Jersey, U.S.

Dear Dr. Biggs,

Thank you very much for your kind letter of November 1, and for your invitation to partecipate to the Gordon Research Conference on Elastomers. I consider a great honour to be invited and I am glad to accept.

I could give a lecture on the properties of new polymers of diolefins and on the olefins polymers which can be employed for the pro duction of elastomers. If such subject seems to you too large, I could limit it to the preparation and structure of cristallin polymers of dio lefins, particularly of butadiene.

As you probably know, we prepared synthetically and studied the cristallin structure of 1-4 trans-polybutadiene, 1-4 trans-polyiso-prene, 1-2 polybutadiene and of other polydiolefins. We studied also th uses in the elastomer field of very high molecular weight polymers and copolymers of alpha-olefins. As I shall speak about alpha-olefins poly-mers at the Gordon Research Conference on High Polymers, I shall develo more in detail the field of new cristallin polymers in this Conference, and I can speak about the high molecular weight amorphous polymers of alpha-olefins in the Conference on Elastomers. I beg you to kindly let me know how long should be my lecture.

With kindest personal regards, and many thanks, I am,

Very sincerely yours,

G. Natta

December 17, 1955

Dr. B. S. Biggs
Bell Telephone Laboratories
Murray Hill Laboratory
MURRAY HILL, NEW JERSEY, U.S.A.

Dear Dr. Biggs,

Many thanks for your kind letter of November 17, please excuse my long delay in replying to you.

As I am invited also to give a lecture on "Organic Reactions and Processes" on June 11, and on "High Polymers" in the week from July 1 to July 5, I wanted to examine how I may subdivide the subjects of the different lectures.

I wish to inform you about the subjects of these lectures:

Lecture on "Elastomers" (July 29-August 3) - " Synthesis by anionic polymerisation of new elastomers and unsaturated cristallin polymers".

Lecture on "Organic Reactions and Processes" (June 11) - "Stereospecific Polymerisation of unsaturated hydrocarbons".

Lecture on "High Polymers" (July 1-5) - "Isotactical Polymers".

During my visit in the U.S.A. I shall be very pleased to visit ~~also, if~~ possible, your Laboratories and to discuss with your people about the electrical semiconductivity of high unsaturated polymers prepared by us.

I should be very grateful if you may send to me reprints of your Company in the field of organic semiconductors.

With my kindest personal regards and best wishes, I am,

Very sincerely yours,

G. Natta

The Palace Hotel 2 [illegible] 1955

SAN FRANCISCO 19

Caro Giulio, ho incontrato ieri qui il prof. Colson, che come ben ricordi nella fondazione Donegani per un caso di leucemia in Italia. Egli ha i risultati esperimenti di istituti alla ricerca sui composti [illegible] potrebbe e mi ha domandato se non bisogna esporli [illegible] - Non ho visto in fine nulla su Linea [illegible] se si può [illegible] con [illegible] di esperienza gli istituti [illegible] fossero con le proteine.

now the SHERATON-PALACE

Bonn. Sept. 23

418

Dear Prof. Natta,

Last week I had an opportunity to speak briefly with your associate Dr. Pino and we made an appointment to visit our Institut in Milan the week following Sunday Nov. 20.

L'indirizzo è: M. Calvin - Department of Chemistry - University of California - Berkeley 4.

Se sono giusto se ne farà anche problema per via aereo.

Tuttavia ho tutti gli stampati pubblicati affinché abbia a disposizione per la prossima Pugwash

Tua Gleditsch

2.

I am looking forward seeing you in Lau.

Very truly yours,
Melvin Calvin

Pedine D. Ulmanti

appunto conferenza

I hope this will be satisfactory with you. We would like to hear that this is so and will be in the Chem. Inst. of the University of Leiden in Holland from Oct 3 to Oct 17

641

TELEPHONE OXFORD 57869.

c/o The Dyson Perrins Laboratory, America
South Parks Road,
Oxford 4 November, 1955

Prof. Giordani
chiedere notizie

12/11
G. Ramo

Dear Professor Natta,

I have just received your three letters dated October 19, 20 and 26, and I am pleased that arrangements are proceeding so well. Some days ago I sent you the Italian translation which you requested, and I hope that you have received it by now.

I have been trying to find a way of accepting your invitation to extend the conferences under the auspices of the Donegani Foundation. I am afraid, however, that the proposal is too late to permit me to supply you with the necessary manuscripts for translation into Italian in time to be of any use. I could only provide the Italian manuscript for two or three of the lectures and no manuscript at all for the remaining three. It appears, therefore, that I will be unable to accept Professor Giordani's suggestion at this late date and do a proper job of it in so far as I understand what the proposal is.

It is our hope to arrive in Milan on Sunday, November 20, and we will go directly to the Hotel Manin. I will call upon you on Monday, 21 November, at your Institute.

Very truly yours,

Melvin Calvin

Professor G. Natta,
Istituto di Chimica Industriale del Politecnico,
Piazza Leonardo da Vinci,
32 - Milano,
ITALY.

Roma
Dec. 8.

839
Amme

Dear Prof - Natta

It has become necessary for me to ask if you could send the Italian manuscript which I left with you to Prof. A.M. Liquori at the Ist. Chimica Pharmaceutica di Univ. Roma. He has some of the responsibility for the preparation of the Dorogan Lectures for Publication and I would appreciate anything you can do to help him

Thanks once again for the most stimulating visit in Milan.

Very truly yours,
Melvin Calvin

Ans. 12/15
- 1 18.12.55

October 20, 1955

Prof. Melvin Calvin
c/o Dr. G. R. Barker
Chemistry Department
University of Manchester
MANCHESTER 13 - England

Dear Professor Calvin,

I received your letter of October 17, and I am glad to inform you that I have already booked the rooms for you at the Hotel Manin, Via Manin 7, near to public Gardens and near also to the Station.

I should be grateful to you if you will send to me the Italian translation of your English manuscript so that we may do copies of it to distribute before your talk.

Looking forward to seeing you, I am sending you best wishes.

Veru truly yours,

G. Natta

October 26, 1955

Prof.Melvin Calvin
c/o Dr.G.R.Barker
Chemistry Department
University of Manchester
Manchester 13 = England

Dear Professor Calvin,

I have been informed by Professor Giordani that you would go to Naples at the end of November. Professor Giordani would be very glad if you may include in the cycle of the lecture you will give in Italy, also a series of lectures in Rome. You might give these lectures some before and some after your stay in Naples. We would be very glad if you may accept Prof.Giordani's wish. In this case, your cycle of conferences in Rome and in Milan might be sponsored by the "Accadmmia Nazionale dei Lincei" the gratest and oldest Academy of Italy, and "Fondazione Donegani" will pay you an honorarium. In this case the number of your lectures should be about ten.

The Fondazione Donegani would like to publish in Italian the lectures of the foreign professors and Prof.Giordani and I are at your disposal to perfect the Italian Language of your manuscript.

With kindest personal regards, I am,

Very sincerely yours,

G.Natta

P.S. - I am receiving just now the English manuscript of your lecture and I thank you very much.

November 14, 1955

Professor Melvin Calvin
c/o The Dyson Perrins Laborato:
South Parks Road
O X F O R D - England

Dear Professor Calvin,

I received your letter of November 4, and as I had the opportunity to meet Prof. Giordani last saturday, I am writing you also for him. I wish to inform you that we shall be very pleased if you may accept our invitation and give some lectures in Rome. In the affirmative, it would be possible to contribute more largely to your expenses of travel and stay in Italy, as your cycle of conferences might be sponsored by Accademia Nazionale dei Lincei, Fondazione Donegani. In the case you may give, besides the lecture and the Seminary in Milan, also a lecture in Naples and six in Rome, the honorarium that "Fondazione Donegani" can give you, could amount to Lire 500.000 at least (800-850 dollars).

You may repeat in Rome and in Naples the lecture you give in Milan, and, in addition, you might give the other lectures in Ro If you do not dispose of the Italian translation of the lectures, y might send them after, or we might carry out ourselves, successivel the translations, if it would be necessary the Italian translation and if you may send to us the English manuscript. All the lectures should be published in Italian Language. In the case you cannot giv the entire number of lectures required by the "Fondazione Donegani" your honorarium of course, would be reduced.

Looking forward to seeing you soon in Milan, I send you my best regards.

Very sincerely yours,

G. Natta

24 November 1955

Professor Melvin Calvin
c/o Prof. D. Marotta
Istituto Superiore di Sanità
Roma - Viale Regina Elena 299

Dear Professor Calvin,

I am very pleased to have made your acquaintance and I thank you very much for the time you kindly dedicated to our problems and for the very interesting lecture and the useful discussions you held at our Institute.

Only today I received a telegram from Prof. Giordani, and I am glad to inform you that Prof. Giordani agrees with our proposal for your cycle of two conferences sponsored by "Fondazioni Donegani".

Hoping to have the opportunity to meet you again in the near future, I am sending you my best personalewishes.

Very truly yours,

G. Natta

P.S. - This morning your little package and an other mail (from M. Taylor) is arrived at last! As I am not sure that it wi arrive tomorrow in Rome, I shall send it at once to Naple and I have addressed the package to: Prof. Calvin, c/o Pro Giordani, Istituto Chimico Università, Via Mezzocannone 4 and the mail to: Hotel Vesuvio, Naples. Hoping you will r ceive all your mail, I send you bestregards.

553
Amici

November 19, 1955

Prof. Melvin Calvin
Hotel Manin
Milano - Via Manin 7

Dear Prof. Calvin,

As I shall be away on Sunday 20 and I shall be back only for dinner, I should beg you if you may ring me up at my home (telephone number 486.308) on on Sunday after the 8 p.m., or on Monday 21, before the 8 a.m.

Looking forward to seeing you, I send you my best wishes.

Very truly yours,

G. Natta

ORGANISCH CHEMISCH
LABORATORIUM
DER RIJKSUNIVERSITEIT

Hugo de Grootstraat 25
Telefoon 26457 - Leiden

564
Quenica

LEIDEN, 17 October 1955

Prof.Dr G.Natta,
Istituto di Chimica Industriale del
Politecnico,
Piazza Leonardo da Vinci 32, Milaan.

Dear Professor Natta,

It is our hope to arrive in Milan on Sunday November 20 and I would be grateful to you if you could let me know in advance the name and address of the hotel at which we would be staying. I would suggest that this be sent to me c/o Dr G.R.Barker, Chemistry Department, University of Manchester, Manchester 13, England, where I will be on October 31. For a Chemical Society talk which you propose I have an Italian translation of my English manuscript which I will bring for your use.

Very truly yours,

Melvin Calvin

M.Calvin.

P.S. We would require one 2-bedded room and one 3-bedded room or two 2-bedded rooms and one single room.

(Hotel Milano)

Oct. 18

564
hs
Quenica

Dear Prof Natta

I am enclosing an english manuscript of the lecture which I have ~~the~~ in an Italian translation. You may find it useful.

Very truly yours,

Melvin Calvin

The New York State College of Ceramics
At Alfred University
ALFRED, N.Y.

DEPARTMENT OF
CERAMIC RESEARCH

May 5, 1955

Dr. G. Natta
Piontelli and
Polytechnic of Milan
Milano, Italy.

Dear Dr. Natta:

I plan to be in Milano on or about June 25th at which time I would like to visit your institution. The work which you have done in the field of cobalt oxidation has been very useful to us and I would appreciate speaking to you on this subject. We have been working with the problem of polycrystalline oxidation of cobalt with Al_2O_3 at temperatures between 200 and 900°C. We have never been able to set up the general mechanisms by which oxidation proceeds in such a complex system. I am sure that a discussion on this subject would be quite valuable. Please indicate if this visit is acceptable.

Yours very truly,

W. B. Crandall

W. B. Crandall, Director
ONR Research Project

WBC:bjh

1

The New York State College of Ceramics
At Alfred University
ALFRED, N.Y.

DEPARTMENT OF
CERAMIC RESEARCH

~~A. C. Stanton~~ America

June 1, 1955

Professor G. Natta
Polytechnic of Milano
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter of May 26th. I have heard from Professor Pointelli as you promised. I have told Professor Pointelli that I will contact him from Europe when the exact time of my visit has been determined.

Yours very truly,

W. B. Crandall

W. B. Crandall, Director
ONR Research Project

WBC:bjh

296
America

COLGATE-PALMOLIVE COMPANY
105 HUDSON STREET
JERSEY CITY 2, N. J.

ARTHUR L. FOX
DIRECTOR OF RESEARCH

August 30, 1955

ind

Professor Giulio Natta
Direttore Dell 'Instituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I have your letter of August 26, and am very sorry that it will be inconvenient for you to see me on September 24. I think there is a possibility that I can change this date, but must wait until I have replies from more of the people with whom I am trying to make appointments. After I get to Paris I will get in touch with you by telephone to see what arrangements are possible.

It was very kind of you to write me so promptly. I am very anxious to meet you, for Dr. Mark has told me many complimentary things about you.

Sincerely yours,

Arthur L Fox

ALF:mnf

414

C.C.I.A. MILANO N.132219
C/C. POSTALE N.3/7186
TELEGR. PALMOLIVE-MILANO

Palmolive S. p. A.

Capitale L.1.400.000.000 versato
Corso Italia, 15
Milano (219)

TELEF. 80.37.54 (3 linee)
86.08.51 (2 linee)
89.24.23 (com.interurb.)

America

DIREZIONE

Milano, 23 Settembre 1955

Egr.Prof.Giulio Natta
Direttore dell'Istituto
di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 32
MILANO.

My dear Professor Natta:

I wish to express my sincere appreciation for the very kind reception you gave me when I visited you on Wednesday.

You have a wonderful laboratory and it was very fine to see all of the wonderful equipment that you have. Your ideas were very helpful to me and I am deeply appreciative for your kind assistance.

I hope sometimes to see you again and I will remember you to Dr.Mark.

With kindest personal regards, I am,

sincerely yours,

Arthur L. Fox

Dr.A.L.Fox

ALF:ld

419
America

DEBELL & RICHARDSON, INC.

HAZARDVILLE
CONNECTICUT

23 September 1955

Herrn Professor Doktor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
32 Piazza Leonardo da Vinci
Milano, ITALY

Sehr geehrter Herr Professor Natta,

Fuer Ihren freundlichen Brief vom 4 Juli danke ich bestens. Ich bemerke dass die Firma Montecatini ueber alle Rechte zu Ihren Patenten ueber isotaktische Polymere verfuegt, und wir werden daher direkte Verhandlungen mit dieser Firma aufnehmen.

Inzwischen möchte ich es nicht unterlassen zu erwähnen dass unser Direktor Herr John M DeBell in der nahen Zukunft nach Europa fährt um alte Geschäftsfreunde zu besuchen und neue persöhnliche Verbindungen in Forschung und Entwicklung auf dem Kunstharzgebiete zu finden.

Seine Reise wird ihn wahrscheinlich fuer kurze Zeit zu Italien und auch Milano nehmen, und ich habe ihm daher vorgeschlagen er muesse versuchen sich von seinem Programm loszureissen um einen Besuch bei Ihrem beruehmten Institut abzulegen.

Herr DeBell ist in amerikanischen Kunstharzkreisen eine sehr bekannte Persöhnlichkeit, und Sie kennen vielleicht seine vorzuegliche Zusammenfassung von der deutschen Kunstharzindustrie das in Buchform erschienen ist - "German Plastics Practice". Ich hoffe dass ein Zusammentreffen möglich werde, und glaube dass Sie viele Gebiete von gegenseitigem Interesse finden wuerden.

Mit den besten Gruessen verbleibe ich,

Ihr ergebener

Sven Richter

Sven Richter

SR:mw

Air-Mail

(40)

June 28, 1955

Dr. Bjorn Andersen, Vice Presider
Celanese Corporation of America
Plastics Division
200 Ferry Street
NEWARK 5, New Jersey, U.S.A.

Dear Dr. Andersen,

I received you letter of May 24, with enclosed the list of prices for synthetic fibers in the United States, you kindly sent me.

With many thanks and best regards, I remain,

Sincerely yours,

Giulio, Natta

180

26.8.1955

Dr Arthur L. Fox
Colgate-Palmolive Co.
105 Hudson Street
Jersey City 2, New Jersey

Dear Sir

I have received the letter of Prof. Mark with the announcement of your visit.

It is very difficult that I can be in Milan September 24, I shall be September 23 or 27.

I would appreciate very much if you would ring up to ~~t~~ this Institute Tel. 292.125/292.126 Milan, when you have arrived in France, to fix an appointment.

Looking forward to meet you I am yours sincerely

(Prof.NATTA)

May 26, 1955

Mr. W.B.Crandall, Director
ONR Research Project
The New York State College of Cera
Alfred University
A L F R E D - N.Y.

Dear Mr.Crandall,

I received your letter of May 5, and I inform you that we, at the present time, do not work in the field of cobalt oxidation any longer, as our researches are carried out in a very different field, and exactly, in the field of the organic syntheses. However, if you will come to Milan, I shall be glad to meet you, hoping to be here.

I am sending your letter to Professor Piontelli so that he may reply directly to you.

With best regards, I am,

Very sincerely yours,

Giulio Natta

CELANESE CORPORATION OF AMERICA

PLASTICS DIVISION

290 FERRY STREET
NEWARK 5, NEW JERSEY

MITCHELL 2-6800

VIA AIR MAIL

YOUR REF.

OUR REF. BA-54-55

May 24, 1955

Professor Dr. Giulio Natta
Polytecnio di Milano
University of Milan
Milan, Italy

Dear Dr. Natta:

In further reference to my letter of May 11th, please find attached a list of prices for synthetic fibers in the United States, both continuous filament yarn and staple.

With Arnel, we refer to our new Celanese triacetate fiber. The rest of the names are probably familiar to you.

If we can be of any further assistance in this connection, please advise.

Most cordially yours,

CELANESE CORPORATION OF AMERICA

Bjorn Andersen,
Vice President

BA:r
Attach.

Adresse télégraphique
BAUMEO-COURBEVOIE
BOITE POSTALE
N° 102 COURBEVOIE

Cadum Palmolive

SOCIÉTÉ ANONYME AU CAPITAL DE 500.000.000 DE FRANCS

5, BOULEVARD DE LA MISSION-MARCHAND – COURBEVOIE (SEINE)
TÉLÉPHONE : DÉFENSE 20-60 (9 LIGNES GROUPÉES)

Compte chèques postaux
PARIS 1243-94
R.C. N° 8307 PARIS
R.P. SEINE N° 379 C.A.O.

26

America

Professor Giulio Natta
Direttore del Instituto
di Chemica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci, 32
Milan. Italy.

AIR MAIL
September 12th, 1955.

Dear Professor Natta,

Since writing you on August 30th I am now arrived in Paris and have been able to re-arrange my schedule so that if possible I could see you on the afternoon of Friday September 23rd. I plan to visit Mr.Arsoni at Montecatini in the morning and would probably be able to see you late that afternoon. I would be delighted if you could plan to take dinner with me that evening.

Would you be kind enough to advise me c/o Mr.R.Latour, 5 Bld de la Mission Marchand, Courbevoie (Seine), France, whether this would be satisfactory.

Awaiting the pleasure of seeing you, I am,

Sincerely yours,

Arthur L. Fox.

Dr.A.L.Fox
Director of Research
COLGATE PALMOLIVE COMPANY

ALF/ME

(213)

September 16, 1955

American

Dr. A. L. Fox
c/o Mr. R. Latour
5 Bld de la Mission March
Courbevoie (Seine) - Fran

Dear Dr. Fox,

I received your letter of September 12, and I wait for your visit on September 23. However, as I have to go out of Milan in the evening, I should like better to meet you early in the afternoon.

Awaiting the pleasure of seeing you, I am,

Sincerely yours,

(Giulio Natta)

30.September 1955

Herrn Dr.Sven Richter
Debell & Richardson,Inc.
Hazardville
Connecticut

Sehr geehrter Herr Doktor Richter!

Auf Ihren Brief vom 23.September eingehend, freut es mich Mr.John M.Debell kennen zu lernen, wenn er uns demnächst bei seiner Italienreise in Milano besuchen wird. Da ich sehr oft verreist bin, würde ich Sie bitten, mir rechtzeitig das Datum der Ankunft von Mr.J.M.Debell mitzuteilen.

Falls ich abwesend sein sollte, werde ich meinen Assistenten bitten, ihn durch das Institut zu fuehren.

Mit den besten Gruessen

Ihr sehr ergebener

(G.Natta)

DeBELL & RICHARDSON, INC.

HAZARDVILLE
CONNECTICUT

May 27, 1955

Professor Doctor Giulio Natta
Instituto Polytecnico
Milano, ITALY

Dear Professor Natta:

I am taking the liberty of sending a copy of my letter of April 6, which may not have reached you.

Several of our friends have expressed interest in your new kind of polystyrene and have asked us whether we knew if the process would be available for licensing. I should greatly appreciate it if you would care to give us your thoughts on this.

Very sincerely yours,

Sven Richter

SR:mw

Enclosure: Copy of letter of April 6

Air Mail

DEBELL & RICHARDSON, INC.

HAZARDVILLE
CONNECTICUT

6 April 1955

Herrn Professor Doktor Giulio Natta
Instituto Polytecnico
Milano, ITALY

Sehr geehrter Herr Professor:

Im Sommer des Jahres 1947 hatte ich das Vergnügen Sie und Ihre Mitarbeiter sowie Herrn Professor Quilico in Milano kennen zu lernen und habe auch einen sehr angenehmen Abend mit Ihnen und Frau Professor Natta in Ihrem Hause zugebracht. Damals war ich technischer Leiter der Kunstharzabteilung der Svenska Oljeslageri AB in Gothenburg in Schweden. In 1948 bin ich nach Amerika übersiedelt und bin jetzt seit einigen Jahren bei der wohlbekannten konsultierenden Firma für die Kunstharzindustrie, DeBell & Richardson, Inc., tätig.

Von der Literatur sind wir grundsätzlich mit Ihren wissenschaftlichen Arbeiten bekannt und wir finden dass sich Ihre Interessen in der letzten Zeit ein bisschen geändert haben, von Rohmaterialen und hohen Reaktionsdrucken auf "plastics" - und niedrige Drucken (Polyäthylen). Und heute lesen wir von Ihrem jüngsten "brain child", das hochschmelzende Polystyrol mit hohem Schlagzähigkeit. Es wäre sehr interessant zu erfahren, ob es sich bei diesem Produkt von einem rein linearen Hochpolymer oder Copolymer handelt, was natürlich von grossem technischen Interesse sein würde. Da Ihre Arbeiten in der Fachpresse veröffentlicht sind, nehmen wir an dass Sie frei darüber sprechen können.

Es ist mir auch eingefallen dass eine Zusammenarbeit auf diesem Gebiete von gegenseitigem Interesse sein könnte, und wir möchten gerne Ihre Einstellung zu einem solchen Vorschlag erfahren. Unsere Firma ist seit mehr als zehn Jahren tätig in "research and development and evaluation of plastics" mit Auftragsgeber nicht nur unter den "big four" von der Amerikanischen chemischen Industrie sondern auch unter Firmen aller Grössen in manchen Ländern der Welt. Unsere Laboratorien sind in Hazardville, Connecticut, und sind für den verschiedensten Aufgaben der

Syntetisierung, des Polymerisierens, Formens und der Nachbehandlung der plastischen Materiale ausgerüstet. Wir sind auch Ratgeber bei der Konstruktion von chemischen Fabriken, unternehmen ekonomische Marktstudien, und introduzieren neue technische Verfahren in der chemischen oder angewandten Industrien.

Ich habe mich erlaubt, diesen Brief auf Deutsch abzufassen da ich mich erinnere dass wir uns damals in dieser Sprache unterhalteten; und ich greife gerne jede Gelegenheit ein bisschen Uebung darin zu erhalten. Wenn Sie in Italienisch antworteten, würden Sie mir eine Chance geben, meine diminutiven Kentnisse von Ihrer schönen Sprache zu prüfen.

Bitte, empfehlen Sie mich Ihrer Frau Gemahlin, und Ihrer angenehmen Nachrichten gewärtig, verbleibe ich,

Mit vorzüglicher Hochachtung,

Sven Richter

Sven Richter

SR:mw

Air-Mail

CELANESE CORPORATION OF AMERICA

PLASTICS DIVISION

290 FERRY STREET
NEWARK 5, NEW JERSEY

MITCHELL 2-6800

VIA AIR MAIL

YOUR REF.

OUR REF.

May 11, 1955

Professor Dr. Giulio Natta
Polytecnio di Milano
University of Milan
Milan, Italy

Dear Dr. Natta:

The writer and his associates, Mr. F. Paffen and Mr. W. M. Shine, appreciated very much the time you gave us at our visit to your office and your cordiality. It was indeed interesting to learn first hand about some of your great achievements in the field of high polymers.

As promised, I am getting together a price list for all the synthetic high polymer fibers in the U. S. and will forward it to you as soon as I have it together.

We shall be much interested in pursuing this matter further with Montecatini when they are ready to talk this fall.

I trust that you will not neglect to visit us on your next visit to our country.

Most cordially yours,

CELANESE CORPORATION OF AMERICA

Bjorn Andersen,
Vice President

BA:r

552

America

1061 Lindendale Drive,
Pittsburgh 16, Penna.
October 10,1955.

Professor G. Natta,
Institute of Industrial Chemistry,
Milan,Italy.

Dear Professor Natta:

I am sorry that your copy of Volume 3 has not yet arrived. One is being sent to you and you should receive it soon.

I think your suggestion of including Dr. Colombo and Ing. Pasquon as authors on your forthcoming article on higher alcohols is a good one. Dr. Colombo has certainly been very helpful in translating your two articles. I shall look forward to receiving the chapter that the three of you are writing.

With kindest personal regards, I am

Sincerely yours,

Paul H. Emmett

Paul H. Emmett

P.H.E/LLE

247
America

1061 Lindendale Drive,
Pittsburgh 16, Pa.,
August 9,1955

Professor G. Natta,
Poytechnic Institute of Industrial Chemistry,
Milan, Italy.

Dear Professor Natta:

I greatly appreciate your finishing up the chapter on higher alcohol synthesis and turning it over to Dr. Columbo. I expect to hear from him about it soon. As I explained to him I want to get it as soon after October 1 aspossible so that it can be put in shape for Volume V of the series on Catalysis. As you may have noted your chapter on Methanol appeared in Volume III which has just been pubslished. Volume IV on Fischer Tropsch and related processes is now being reviewed for the printer and should appear about the first of the year .

I greatly appreciate your cooperation in writing these chapters. Certainly the one on methanol is a real contribution to the literature. I also want to congratulate you on the fine success you have been having in the field of the catalytic synthesis of high polymers. I have heard a great deal of favorable comment in this country on your work.

The chapters by Orchin and by Wender on Oxosynthesis and on miscellaneous reactions of carbon monoxide arenow being put in final form. They have covered all of your work with which they were acquainted but I daresay will be unacquainted with some of your more recent work. It is too bad that you didn't get a chance to cover some of the numerous topics that you originally planned to cover but I can well understand how you have found it impossible to find time to do so.

Beginning this past July 1 I severed my connections with the Mellon Institute and have joined the Chemistry Faculty of the Johns Hopkins University in Baltimore , Maryland. I shall be there after about the middle of September. I hope to build up graduate work in catalysis though I never expect to be able to duplicate the very fine research organization that you have built up in Milan.

With kindest personal regards, Iam

Sincerely yours,

Paul H. Emmett

4.6 1955

Herrn Dr. Sven Richter
DeBell e Richardson, Inc.
Hazardville (Connecticut)

Sehr geehrter Herr Doktor Richter,

ich bitte Sie mich zu entschuldigen, wenn ich erst jetzt a Ihren freundlichen Brief vom 6. April antworte. Ich war in den letz Monaten durch die Reorganisation meines Institutes und ein grosses Arbeitsprogramm sehr beschäftigt .

Ich habe mit Interesse vernommen, dass Sie einen neuen Wirkungskreis gefunden haben und drücke Ihnen bei dieser Gelegenhei meine Glückwünsche aus.

Unser neues Polystyrol ist ein lineares Kopf-Schwanz-Polymeres, in dem alle asymmetrischen Kohlenstoffatome die gleiche sterische Konfiguration besitzen (isotaktisches Polymer). Ich habe unlängst einen Artikel ueber die neuen isotaktischen Polymeren im J. Am.Chem.Soc. veröffentlicht . Eine weitere Arbeit ueber die Kristall struktur dieser Stoffe wird in Kurze in der "Makromolekularen Chemie veröffentlicht werden.

Ich werde ausserdem anlässlich des Weltpetroleum-Kongresse in Rom sowie am 27 Juli beim IUPAC-Treffen in Zurich ueber dieses Th ma vortragen.

~~Was die~~ Lizenz unserer Patente aubelangt, ~~ist~~ es notwendig mit der Soc. "Montecatini" in Mailand (Ing. Oreschi) zu verhandeln, da diese Firma ueber unsere Patente fuer alle Staaten verfügt .

Mit den besten Grüssen

(Prof.G.Natta)

6 April 1955

Herrn Professor Doktor Giulio Natta
Instituto Polytecnico
Milano, ITALY

Sehr geehrter Herr Professor:

Im Sommer des Jahres 1947 hatte ich das Vergnügen Sie und Ihre Mitarbeiter sowie Herrn Professor Quilico in Milano kennen zu lernen und habe auch einen sehr angenehman Abend mit Ihnen und Frau Professor Natta in Ihrem Hause zugebracht. Damals war ich technischer Leiter der Kunstharzabteilung der Svenska Oljeslageri AB in Gothenburg in Schweden. In 1948 bin ich nach Amerika übersiedelt und bin jetzt seit einigen Jahren bei der wohlbekannten konsultierenden Firma für die Kunstharzindustrie, DeBell & Richardson, Inc., tätig.

Von der Literatur sind wir grundsätzlich mit Ihren wissenschaftlichen Arbeiten bekannt und wir finden dass sich Ihre Interessen in der letzten Zeit ein bisschen geändert haben, von Rohmaterialen und hohen Reaktionsdrucken auf "plastics" - und niedrige Drucken (Polyäthylen). Und heute lesen wir von Ihrem jüngsten "brain child", das hochschmelzende Polystyrol mit hohem Schlagzähigkeit. Es wäre sehr interessant zu erfahren, ob es sich bei diesem Produkt von einem rein linearen Hochpolymer oder Copolymer handelt, was natürlich von grossem technischen Interesse sein würde. Da Ihre Arbeiten in der Fachpresse veröffentlicht sind, nehmen wir an dass Sie frei darüber sprechen können.

Es ist mir auch eingefallen dass eine Zusammenarbeit auf diesem Gebiete von gegenseitigem Interesse sein könnte, und wir möchten gerne Ihre Einstellung zu einem solchen Vorschlag erfahren. Unsere Firma ist seit mehr als zehn Jahren tätig in "research and development and evaluation of plastics" mit Auftragsgeber nicht nur unter den "big four" von der Amerikanischen chemischen Industrie sondern auch unter Firmen aller Grössen in manchen Ländern der Welt. Unsere Laboratorien sind in Hazardville, Connecticut, und sind für den verschiedensten Aufgaben der

Syntetisierung, des Polymerisierens, Formens und der Nachbehandlung der plastischen Materiale ausgerüstet. Wir sind auch Ratgeber bei der Konstruktion von chemischen Fabriken, unternehmen ekonomische Marktstudien, und introduzieren neue technische Verfahren in der chemischen oder angewandten Industrien.

Ich habe mich erlaubt, diesen Brief auf Deutsch abzufassen da ich mich erinnere dass wir uns damals in dieser Sprache unterhalteten; und ich greife gerne jede Gelegenheit ein bisschen Uebung darin zu erhalten. Wenn Sie in Italienisch antworteten, würden Sie mir eine Chance geben, meine diminutiven Kentnisse von Ihrer schönen Sprache zu prüfen.

Bitte, empfehlen Sie mich Ihrer Frau Gemahlin, und Ihrer angenehmen Nachrichten gewärtig, verbleibe ich,

Mit vorzüglicher Hochachtung,

Sven Richter

SR:mw

Air-Mail

CORNELL UNIVERSITY
DEPARTMENT OF CHEMISTRY
ITHACA, NEW YORK

236
America

August 4, 1955

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Since I returned to Ithaca recently, I have been informed by the Cornell University Press that they have received inquiries from Edizioni dell' Ateneo, Via Caio Mario, 13, Roma 609, Italy, concerning the publication of an Italian edition of "Principles of Polymer Chemistry." We do not know whether or not they have in mind someone to carry out the translation.

I thought it might be worth while to convey the above information to you. Possibly you might wish to contact Edizioni dell' Ateneo.

Please be assured that I shall be glad to assist you in any way possible in facilitating arrangements for the translation.

With kind personal regards, I am,

Very truly yours,

P. J. Flory

Paul J. Flory

PJF:ejd

CORNELL UNIVERSITY
DEPARTMENT OF CHEMISTRY
ITHACA, NEW YORK

(299)

August 30, 1955. Inserire

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Milano, Italy

Dear Professor Natta:

I have just received your letter of 26 August and wish to assure you that I would not care to see any arrangement made for the translation of my book unless assurance could be given of the capability of the translator. I fully agree that the translation should be carried out by some one familiar with the field of polymer chemistry.

I, of course, know nothing about "Edizioni dell'Ateneo - Roma". It had occurred to me that the person who previously expressed to you an interest in translating the book might wish to do so under an arrangement with this publisher. Your interest in this matter is very much appreciated, I assure you.

Your results on the synthetic polybutadienes are extremely interesting. It is especially remarkable that in the 1,2 case the successive asymmetric carbon atoms occur in opposite configurations. We shall look forward to seeing these future publications of your work.

Please convey my kind regards to your family and colleagues.

Sincerely,

2 lettere
mio amico
Flory

P. J. Flory.

PJF:hmb

Scrivere Elias
[illegible]
traduttore fa assumere
informazioni sulle sue
conoscenze ed
campo specifi-

THE UNIVERSITY OF MANCHESTER,
DEPARTMENT OF CHEMISTRY,
MANCHESTER, 13.
TELEPHONE : ARDWICK 3333

PJF/VI

32

Flory

6th June, 1955.

Professor Giulio Natta,
Istituto Di Chimica Industriale
Del Politecnico,
Piazza Leonardo Da Vinci, 32
MILANO

Dear Professor Natta,

It will be necessary to contact the Cornell University Press in order to know what royalty they will require under their copyright for "Principles of Polymer Chemistry". Based on me experience in arranging for the Japanese translation, I suspect that they will insist on 10%. This seems rather high to me, especially when the expected sale for a possible Italian edition would necessarily not be large. Possibly a somewhat more favourable arrangement could be agreed upon, but this will be a matter for the prospective publisher to handle.

I have no up to date information on the number of copies which have been sold. Cornell University Press could give you this information also. I do know that the first printing of 5,000 copies has not yet been sold out.

If you prefer, I could write again to Mr. Victor Reynolds, Publisher of the Cornell University Press, requesting the foregoing information for you. Please let me know if you wish me to do this.

I was glad to note that there will be a discussion of the nomenclature for your polymers at the forthcoming meeting in Zurich. Unfortunately I shall not be able to attend.

With kind personal regards,

I remain,

Very truly yours,

P. J. Flory

P. J. FLORY

CORNELL UNIVERSITY PRESS

INCLUDING *Comstock Publishing Associates*, 114 ROBERTS PLACE, ITHACA, NEW YORK

Flory

May 2, 1955

Professor G. Natta
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Dr. Paul Flory has written us of your interest in arranging for an Italian edition of his book PRINCIPLES OF POLYMER CHEMISTRY.

The Italian translation rights for Dr. Flory's book are open, and we should be pleased to see it published in Italy. As the agreement covering the rights would be made by Cornell University Press and the Italian publisher, we suggest the first move should be to interest a publishing house in Italy. When an Italian publisher has been found we will be happy to send him our customary terms and a reading copy of the book.

Sincerely yours,

John E. Simmons

John E. Simmons,
Assistant to the
Manager

ricevuto
la lettera e
il manoscritto

copia
lettera a Flory

PJF/VI

THE UNIVERSITY OF MANCHESTER
DEPARTMENT OF CHEMISTRY
MANCHESTER, 13.

TELEPHONE : ARDWICK 3333

16th May, 1955.

Professor G. Natta,
Istituto Di Chimica Industriale
Del Politecnico,
Piassa Leonardo Da Vinci 32,
MILANO

Dear Professor Natta,

I regret to inform you that I have no manuscript of the lecture which I gave at your Institute last month. If I do succeed in writing it up, I will most certainly send you a copy. It is kind of you to offer to prepare a translation for one of the Italian reviews. I understand that you have heard from Cornell University Press concerning the possibility of a translation of "Principles of Polymer Chemistry". Please let me know if I may be of any assistance in this connection.

With kind regards,

Very truly yours,

P. J. Flory

P. J. FLORY

THE UNIVERSITY OF MANCHESTER
DEPARTMENT OF CHEMISTRY
MANCHESTER, 13.
TELEPHONE : ARDWICK 2681

9 March, 1955.

Dear Professor Natta:

Thank you for your letter and especially for making the hotel reservation for us. I recall the Hotel Manin and I am sure it will be satisfactory. I must apologize for having put you to so much trouble.

We plan to travel by motor car, and will probably arrive late on the 13th.

With best thanks for your generous assistance, I remain,

Sincerely yours,

P. J. Flory

Paul Flory

THE UNIVERSITY OF MANCHESTER,

DEPARTMENT OF CHEMISTRY,

MANCHESTER, 13.

TELEPHONE : ARDWICK 3333

PJF/VI

29th April, 1955.

Professor G. Natta,
Istituto di Chimica Industriale
del Politecnico,
Piazza Leonardo da Vinci, 32,
Milano,
ITALY

Dear Professor Natta,

Allow me to thank you again for the hospitality extended to us during our recent visit to Milano. It was most enjoyable and all of us regretted not having more time there.

I saw Professor Signer briefly in Berne, and he informed me that the entire programme of the Division of Macromolecules will be devoted to invited papers. He felt, however, that a discussion of your work would be most welcome in the session on ~~the~~ Polymers during the meetings of the Organic Chemistry Division.

I am currently writing to the Cornell University Press to enquire concerning arrangements for the translation which you suggested. I will write you again as soon as I have received a reply.

With kind regards,

Very truly yours,

P. J. Flory

P. J. FLORY

4.6 1955

Herrn Dr. Sven Richter
DeBell e Richardson, Inc.
Hazardville (Connecticut)

Sehr geehrter Herr Doktor Richter,

ich bitte Sie mich zu entschuldigen, wenn ich erst jetzt a Ihren freundlichen Brief vom 6. April antworte. Ich war in den let: Monaten durch die Reorganisation meines Institutes und ein grosses Arbeitsprogramm sehr beschäftigt .

Ich habe mit Interesse vernommen, dass Sie einen neuen Wirkungskreis gefunden haben und drücke Ihnen bei dieser Gelegenhei meine Glückwünsche aus.

Unser neues Polystyrol ist ein lineares Kopf-Schwanz-Polymeres, in dem alle asymmetrischen Kohlenstoffatome die gleiche sterische Konfiguration besitzen (isotaktisches Polymer). Ich habe unlängst einen Artikel ueber die neuen isotaktischen Polymeren im J. Am.Chem.Soc. veröffentlicht . Eine weitere Arbeit ueber die Kristall struktur dieser Stoffe wird in Kurze in der "Makromolekularen Chemie veröffentlicht werden.

Ich werde ausserdem anlässlich des Weltpetroleum-Kongresse in Rom sowie am 27 Juli beim IUPAC-Treffen in Zurich ueber dieses Th ma vortragen.

~~Was die~~ Lizenz unserer Patente aubelangt, ist es notwendig mit der Soc. "Montecatini" in Mailand (Ing. Orsoni) zu verhandeln, da diese Firma ueber unsere Patente fuer alle Staaten verfügt .

Mit den besten Grüssen

(Prof.G.Natta)

C65

December 20, 1955

Professor Paul H. Emmett
1061 Lindendale Drive
Pittsburgh 16, Penna

Dear Professor Emmett,

My coworkers, Dr. Ing. Pasquon and Dr. Colombo, are completing the chapter that I prepared two years ago on higher alcohols synthesis from CO and H_2, with a modified methanol catalyst. This chapter could have a less extensive title than that "Higher Alcohol Synthesis", that you indicated; for instance "Higher Alcohol Synthesis from CO and H_2".

I should like to know if Dr. Orchin has developed the alcohol synthesis from CO, H_2 and olefins in the chapter on Oxosynthesis. If so, I think that is not necessary for us to develop this subject, and therefore, I might only touch upon it to make a comparison between the different syntheses, referring to the chapter on Oxosynthesis.

I believe that the alcohols production, as by-products from Fischer synthesis or modified Fischer-synthesis (Synol Process), has been developed in the chapter on Fischer-synthesis. Please let me know this matter, because I could omit to describe this subject in detail, touching upon only the different mechanisms of this synthesis compared with the one of higher alcohols with modified catalysts for methanol synthesis.

The alcohol production by acids or esters hydrogenation could be matter of a short separated chapter, as it has no relation with the direct synthesis. This chapter has already been prepared and is now being completed and translated. Prof. Agliardi and Dr. Ing. Pasquon could do it, if this work has not been done by another.

As for the mailing date of our chapters, we believe that the first will be ready for the end of next January, the second (acids hydrogenation) for the end of March. We hope that you will not be bothered by this little delay on the fixed program.

With kindest personal regards and best wishes for Christmas and the New Year, I am,

Very sincerely yours,

G. Natta

(35)

October 4, 1955

America

Professor Paul H. Emmett
1061 Lindendale Drive
Pittsburgh 16, Pa., U.S.A.

Dear Professor Emmett,

Some days ago I met Dr. Colombo who let me see Volume III of your series on Catalysis, which I have not yet received. I was favourably impressed by the book.

Although Dr. Colombo did not ask for it, I think that it would be suitable to give him a reward for his translation work. As I, by mutual consens, had to send you the Italian manuscript, I believe you should look after that.

I asked an assistant of mine, Ing. Pasquon, to revise and enlarge the manuscript on higher alcohols I wrote two years ago. Dr. Colombo is prepared to translate it into English. If you agree, I propose to add their names as co-authors of that chapter.

Hoping to hear from you soon, I send you my best regards.

Yours sincerely,

Giulio Natta

30 /8/1955

Prof. H. Emmett
1061 Lindendale Drive
Pittsburgh 16, Pa.

Dear Professor Emmet,

I only received yesterday your kind letter of August 9 as I have been aw-ay for my summer holidays in Champoluc, where we have a house at 5500 feet near the glaciers of Mt. Rosa and Mt. Cervino.

I am sorry that it was impossible for me to find time cover all the topics, I originally planned to cover for your volumes on the catalysis. But in the last years the work in my Institut has increased very much, and it is very hard for me to follow the research of about 50 chemists and engineers in difierent fields (organic synthesis, Kinetics Xray, electron diffraction, identification of new polymers and copolymers etc.), and to find time to write original papers . In the last 12 months I have written 15 new patents and so only very little time has remained for the other work.

I send you some reprints of my work on the cristallin polymers of alpha olefins (wich we call isotactical) I think that the knowledge of catalysts wich selectively produce polymers of a specifical sterical configuration opens a new important branch of the catalysis.

I am very pleased to read that now you have in Baltimora the possibility on extending your researches and I congratulate you with having joined the Johns Hopkins University.

I think that the number of practical and commercial application of catalisys is growing more and more without a corrispondin increase in the knowledge of its theoretical fondations. It is therefore very important to organise new fundamental researches and I wish you the greatest success in your new research organisation.

I am sincerely

yours truly.

November 11, 1955

Professor Paul J. Flory
Cornell University
Department of Chemistry
ITHACA, New York, U.S.A.

Daar Professor Flory,

Following up my letter of yesterdays, I wish to inform you of the news I had about "Edizioni dell'Ateneo in Roma". This publishing house is very little and has a limited importance. It seems that this publisher cannot guarantee a sufficient diffusion of your book. For the translation, Dr. Turriziani, assistant at the Engineering School of the University of Rome, has been proposed, and I think he should be able to do it.

I talked also with other Italian publishers who say that for an editorial success 1000-2000 copies at least are to be sold. It can be foreseen on the contrary, on the basis of the number of copies in the English language, that this number is very difficult to be s ld in a Italian translation. This is due also to the fact that your book is psecially of interest to a scientific and high levelled technical people, who generally can read also the English edition. It would be possible to sell a greater number of copies of a cheaper book, more accessible to a great number of not gradua people.

I know that several American chemists will partecipate to the International Symposium on Macromolecules in Rehovot, and they will visit Milan during their trip. In the case you also will partecipate to this Symposium, I shall be very glad to see you aga in Italy, before my coming to the U.S.A.

With best personal wishes,

Very truly yours,

G. Natta

Firenze, Italia.
July 7, 1955

121

Dear Prof. Natta:

Prof. Ippolito Sorgato of Padova whom I had met in the United States and on whom I called when I visited Padova, wrote me recently that you would like to talk with me. I regret very much that this will not be possible as I am sailing on July 10 from Genova. I wish I had known before that you were in Milano as I spent a day there and I should have been delighted to have the opportunity to meet you. Some of your work is well known to me through your publications but I did not remember that you were at Milano. While in Milano I visited Dr. Vittorio de Nora whom I had met in the U.S. and he said something about taking me to visit the Politecnico but I guess he forgot it and so I didn't get to see it.

I hope to return to Italy as soon as I am able and the next time I will make it a point to look you up. I am so sorry that we couldn't have arranged a meeting this time.

Sincerely yours,
Barnett F. Dodge,
Prof. of Chemical Engineering, Yale U.

July 30, 1955 148

Prof. Barnett F. Dodge
Department of Chemical Engineerin
Yale University
New Haven, Conn., U.S.A.

Dear Professor ~~Barnett,~~ Dodge,

Coming back from the International Congress of Pure and Applied Chemistry in Zürich, I found your kind letter of July 7, and I thank you very much. I am very sorry to have not had the possibility to meet you in Milan and I hope that you may have soon an other opportunity to come to Italy.

I am sending you, under separate cover, some reprints of my papers.

With best personal regards,

Very sincerely yours

Giulio Natta

inviati estratti 5/8/55
vedi in biblio.

THE UNIVERSITY OF MANCHESTER,

DEPARTMENT OF CHEMISTRY,

MANCHESTER, 13.

TELEPHONE : ARDWICK 3333

30th March, 1955.

Professor G. Natta,
Istituto di Chimica Industriale
del Politecnico,
Piazza Leonardo da Vinci, 32,
Milano,
ITALY.

Dear Professor Natta,

Even before I received your letter of March 26 this morning, I had in mind writing you to the effect that we shall probably arrive early on the 13th, and that we shall plan to leave on the afternoon of the 15th. Perhaps you could cancel our reservation at Hotel Manin for the night of the 15th.

A conference on the 14th will be agreeable to me, if it is in accordance with your wishes. I could talk either on "Some aspects of crystallisation in polymers", or on "Configuration and frictional properties of polymer molecules". It will not be necessary to advise me in advance of your choice, in as much as I shall be prepared to talk on either subject.

I shall contact you soon after our arrival on the 13th. Please go to no trouble on our behalf.

Very truly yours,

(P. J. Flory)

Department of Chemistry - Cornell University Ithaca, New York -

26 August 1955

Professor Flory
Cornell University - Departement
of Chemistry
Ithaca , New York - U.S.A.

Dear Professor Flory

Excuse me , if I answer only today to your letter of 4 August , but I have been away for the summer holidays.

I have just now written to the " Edizioni dell'Ateneo - Roma" and to a Collegue of mine of the University of Rome in order to procure information concerning the publication of an Italian edition of " Principles of Polymer Chemistry".

I think it is necessary that the translation should be carried by Someone, very qualified in the field of polymer Chemistry. Only few people from the University or from Research Laboratories of some Chemical Companies have the necessary knowledge in this field.

If the"Edizioni dell'Ateneo" will write to me the name of the translater , I shall procure the necessary informations.

I send you in separate cover some reprints.

It may perhaps interest you that we have obtained a cristalline polymer of butadiene with the I-2 enchainement which has a planar chain with two monomers unities in the identity period. The asimmetrical carbon atoms are one l., the other d. We think to call these structures " syndiotactical".

The melting point of I-2 poly-butadiene is I60°C. We obtained also a purer I-4 trans polybutadiene. It is dimorph and the melting temperature of the modificatione stable at the higher temperature is about I30°C.
These work will be published next month.

With kind personal regards, I am

very truly yours

G. Natta.

June 28, 1955

41

Professor Paul J. Flory
The University of Manchester
Department of Chemistry
Manchester 13, England

Dear Mr. Flory,

I thank you very much for your kind letter of 6th June, and for all the information you sent me.

I wrote about the translation of your book, to an Italian publisher, Mr. Carlo Manfredi, who translated already some foreign books, as P.H. Groggins's, L.F. Fieser and M. Fieser's, and S. Glasstone Unfortunately Mr. Manfredi answered me that they are already engaged for some years with their editorial program. As I previously wrote to you, some of my former assistants told me that they will willing translate your book into Italian and, therefore, I shall write to other publishers to know if they should like to publish an Italian edition.

Our work in the field of isotactical polymers continues, and I shall send you all our further pubblications.

With best personal regards also for Mrs. Flory, I remain,

Very sincerely yours,

Giulio Natta

May 31, 1955

Professor Paul J.Flory
Department of Chemistry
Cornell University
I T H A C A - New York - U.S.A.

Dear Professor Flory,

I thank you very much for your kind letter of May 16.

During your visit to our laboratory, I hinted at an Italian publi cation of your book, as one of my former assistants told me that he will willingly translate this book into Italian?

I received a letter from the Cornell University Press, in which they ask me for being put into touch with the Italian publisher. I have r yet had the opportunity of speaking to some publisher on the matter of th translation, and before doing it, I should like to obtain some informatic from you.

As the Italian market is not very large, the first Italian editic shall have to be limited to a little number of copies, for example, to al 1000 copies, that most probably will require several years for being sol I am very interested in knowing the number of the sold copies of the Eng edition, to let us make some previsions of the Italian number. On the ba of this information, the Italian publisher will be able to examine if it is suitable for us to print your book.

Generally, the Italian publishers used to give to the authors th 10-15 % of the book price, but it may be more if the copies number is re kable. As this percentage will have to include also the compensation for the translater, it would be necessary that the Cornell University Press have no further great requirements. I should be very grateful to you if you can give me some information on this matter.

I received a letter from Mr.Mandelkern of the National Bureau of Standards, who, with reference to you, ask me for the melting point of trans 1-4 polybutadiene. I am enclosing herewith my reply.

I hope to be able to have some more exact dilatometric data and, soon as we obtain them, I will inform you. We are now studying the cris line structure of trans 1-4 polybutadiene (that is different from the on indicated in the literature), and of 1-2 polybutadiene and of others cristalline polymers of diolefins.

My wife joins me in sending you Mrs.Flory and you the best wishes

Very sincerely yours,

Giulio Natta

Enclosure

May 6, 1955

Professor Paul J. Flory
The University of Manchester
Department of Chemistry
M A NC H E S T E R 13 - Engla

Dear Professor Flory,

I received your kind letter of 29th April and I thank you very much for your appreciated visit and for the time you dedicated to our problems.

I should be very grateful to you if you send me a copy of your very interesting conference that I shall have translated into Italian and published, if you have no objection to make, in one of the Italian reviews.

My wife joins me in sending you and your family best regards.

Very sincerely yours,

G. Natta

March 26, 1955

Professor P.J.Flory
The University of Manchester
Department of Chemistry
M A N C H E S T E R 13 (Engl

Dear Mr.Flory,

I should be very grateful to you if you let me know if yo desire to hold a conference during you stay in Milan, and if you will communicate the conference title. If you will arrive on Apri 13, this conference could be held on April 14.

I am very sorry, but, on April 15, I shall be obliged to go to Rome where I shall hold a conference at the "Accademia dei Lincei" on April 16.

Therefore, we shall be able to remain only a little in Milan together, and I should be very grateful to you if you coul anticipate your arrival to Milan in the morning of the 13th Apri at least.

Looking forward to seeing you in Milan, I send you my best personal regards,

Sincerely yours,

G.Natta

758

America

The Kamlet Laboratories

300 FOURTH AVENUE
NEW YORK 10, NEW YORK

November eighteenth, 1955.

Dr. Bartolomeo Orsoni, Director,
Settore Progetti e Studi,
MONTECATINI, S.A.,
Via F. Turati, 18,
Milano, Italia.

Professors Giulio Natta and Piero Pino,
Istituto di Chimica Industriale,
Politecnico,
Milano, Italia.

Gentlemen:

You will undoubtedly recall our two meetings in Milan on September ninth (at the Montecatini offices with Dr. Orsoni and at the Hotel Duomo with Professors Natta and Pino), at which time I had indicated that our principal, the Goodyear Tire and Rubber Company, of Akron, Ohio, U.S.A., was interested in discussing with Montecatini the possibility of a collaboration in the aspects of Professors' Natta and Pino's work relating to high-melting, crystalline polystyrene, polyisoprene, polybutadiene, poly-alpha-butylene, etc.

We envisage in this regard the possibility of working with the Natta group at the Politecnico and the ultimate obtention of licenses under aspects of their developments which may prove of interest to the Goodyear Tire and Rubber Company.

On or about October 11th, 1955, Dr. Ray P. Dinsmore, the Vice-President of the Goodyear Tire and Rubber Company had written to Dr. Orsoni, with a view to the initiation of discussions on that subject. As yet, no reply was obtained from Dr. Orsoni.

A representative of the Goodyear organization is leaving shortly for Europe. He is Mr. James D. D'Ianni. He expects to be in Milan on December 18th to 22nd, and will call on Dr. Orsoni, and at the Politecnico to visit Professors Natta and Pino. I sincerely trust that you will extend to him the courtesies you were good enough to show me during my last visit. D'Ianni will be in a position to continue the discussions we had initiated and I sincerely trust they will be productive.

I shall be keeping in touch with Mr. D'Ianni during his trip. Would you please write me (by Airmail) when you would be free to meet with Mr. D'Ianni, during this period from December 18th to 22nd?

I shall be back in Milan during the early Spring, and I am looking forward to our next meeting.

Respectfully yours,

Jkamlet

Jacob Kamlet, Ph.D., Director,
THE KAMLET LABORATORIES,
300 Fourth Avenue,
New York 10, New York, U.S.A.

jk:cyk.

UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

The William Albert Noyes Laboratory

March 21, 1955

Dr. G. Natta
Department of Chemistry
Politicnio of Milan
Milan, Italy

Dear Dr. Natta:

I was greatly encouraged by your letter of January 28 regarding samples of the aluminum alkyls. My reply was delayed until I'd completed plans for attending the Faraday Society Meeting in Cambridge, England, April 4-6, hoping I might arrange to pick up the samples myself.

However, it appears that the closest I'll be to Milano will be Paris, about April 11-12. So if the samples could be mailed, that would probably be simpler in some ways. The quantities we actually use are sufficiently small that the mailing hazard is negligible if the samples have a non-inflammable packing. Our measurements are usually made on about 0.010 ml of the liquid sealed in a 1 mm I. D. melting point tube. The tube itself is about 5 to 8 cm. long for ease in handling.

Or if you preferred to dissolve the samples in a non-inflammable solvent, such as CCl_4 or $CHCl_3$, our measurements could be made on the solutions at concentrations of at least 20 mole per cent in the alkyl. In this case the same amount of alkyl would be required with, of course, a larger total volume. I doubt if we could learn much about the higher alkyls, but the various ethyl and methyl derivatives should be interesting.

Very truly yours,

H. S. Gutowsky

HSG:sm

INTERSCIENCE PUBLISHERS, INC.
250 FIFTH AVENUE
NEW YORK 1, N.Y.

EXECUTIVE OFFICES

January 14, 1955

Professor Guilio Natta
Via Mario Pafano 54
Milano, Italy

Dear Professor Natta:

We have not heard the definite plans for the publication of the Symposium in Milano-Torino. We are quite frequently receiving inquiries from potential buyers of the Symposium, and would appreciate it very much if we could receive some indication when volumes will be available and what price has been fixed for them by the National Research Council.

Do you want us to get in touch directly with the Research Council? So far, we have not received any official confirmation of the distribution rights.

In anticipation of your kind reply, we remain

Very sincerely yours

INTERSCIENCE PUBLISHERS, INC.

E. S. Proskauer

ESP/kd
cc to Dr. Mark

E. S. Proskauer
Editor-in-Chief

+58

November eighteenth, 1955.

Dr. Bartolomeo Orsoni, Director,
Settore Progetti e Studi,
MONTECATINI, S.A.,
Via F. Turati, 18,
Milano, Italia.

Professore Giulio Natta and Piero Pino,
Istituto di Chimica Industriale,
Politecnico,
Milano, Italia.

Gentlemen:

You will undoubtedly recall our two meetings in Milan on September ninth (at the Montecatini offices with Dr. Orsoni and at the Hotel Duomo with Professors Natta and Pino) at which time I had indicated that our principal, the Goodyear Tire and Rubber Company, of Akron, Ohio, U.S.A., was interested in discussing with Montecatini the possibility of a collaboration in the aspects of Professors' Natta and Pino's work relating to high-melting crystalline polystyrene, polyisoprene, polybutadiene, poly-alpha-butylene, etc.

We envisage in this regard the possibility of working with the Natta group at the Politecnico and the ultimate obtention of licenses under aspects of their developments which may prove of interest to the Goodyear Tire and Rubber Company.

On or about October 11th, 1955, Dr. Ray P. Dinsmore, the Vice-President of the Goodyear Tire and Rubber Company had written to Dr. Orsoni, with a view to the initiation of discussions on that subject. As yet, no reply was obtained from Dr. Orsoni.

A representative of the Goodyear organization is leaving shortly for Europe. He is Dr. James D. D'Ianni. He expects to be in Milan on December 18th to 22nd, and will call on Dr. Orsoni, and at the Politecnico to visit Professors Natta and Pino. I sincerely trust that you will extend to him the courtesies you were good enough to show me during my last visit. D'Ianni will be in a position to continue the discussions we had initiated and I sincerely trust they will be productive.

I shall be keeping in touch with Dr. D'Ianni during his trip. Would you please write me (by Airmail) when you would be free to meet with Dr. D'Ianni, during this period from December 18th to 22nd?

I shall be back in Milan during the early Spring, and I am looking forward to a next meeting.

Respectfully yours,

James Hamlet, Ph.D., Director,
THE HAMLET LABORATORIES,
300 Fourth Avenue,
New York 10, New York, U.S.A.

jk:eyk.

November 28, 1955

Mr. Jonas Kamlet, Ph.D., Director
THE KAMLET LABORATORIES
300 Fourth Avenue
NEW YORK 10, New York, U.S.A.

Dear Mr. Kamlet,

I have been very glad receiving your letter of November 18 sent to Ing. Orsoni and to us, as I had no news from your visit of september 9.

I have been informed by Ing. Orsoni that he did not receive dr. R. P. Dinsmore's letter of October 11, and this is the reason of his silence.

I shall be pleased to meet Dr. James D. D'Ianni during his trip in Italy, and I hope to be in Milan during that period. If, however, I could be away, Dr. D'Ianni can address yourself to Prof. Pino who will stay certainly in Milan during the period from December 18 to 22.

With best regards,

Very truly yours,

G. Natta

May 25, 1955

Prof. M.Kasha
Department of Chemistry
Florida State University
Tallahasse, Florida

Dear Prof. Kasha,

I am pleased to confirm that Dr. Enrico Clementi, who is working in our Institute, is a very studious and serious young man. He is very much interested in working on the molecular spectroscopy, as his sperimental thesis concerned this matter, and I think he would greatly profit by a fellowship at your University.

Very sincerely yours,

Prof.Giulio Natta
(Direttore dell'Istituto)

April 27, 1955

Dr. H.S.Gutowsky
University of Illinois
Department of Chemistry and
Chemical Engineering
URBANA - Illinois

Dear Dr. Gutowsky,

I received your letter of April 20,

As I think that the 5 or 20 mole per cent solution of triethyl compound can be shipped without appreciable hazard, I shall send you, as soon as possible, the samples you require.

Best regards,

Sincerely yours,

G.Natta

Grace Corporation

044

America

DANBURY 8-6983

RALPH N. LULEK

CANDLEWOOD ISLE
CONNECTICUT

November 5, 1955

Prof. Dr. Giulio Natta
Via Mario Pagano 54
MILANO, Italy

Dear Prof. Natta:

Please accept my apologies for not having written you sooner, but my time in Europe was extremely limited and my itinerary very crowded.

I wish to express my sincere appreciation for the kind hospitality extended by Mrs. Natta and you during my stay in Milan, and also for the opportunity of seeing your most interesting Institute, and the work which is being done on polyolefines.

I hope that I shall have the opportunity of seeing you again, either in the U.S. or in Italy.

My kindest regards to both you and Mrs. Natta, I am

Yours Sincerely,

Ralph N. Lulek

RNL/NB

RALPH N. LULEK

804

Americe

MINNESOTA MINING & MANUFACTURING COMPANY LTD

DIRECTORS:
E. R. BARBER
J. L. McCONNELL
G. E. THOMPSON
J. D. MACKENZIE
MANAGING DIRECTOR

TELEGRAPHIC ADDRESS:
MINNESOTA, ESTRAND,
LONDON.

Southern Regional Sales Office:
167, STRAND,
LONDON, W.C.2.
Head Office - Birmingham 8
CONTRACTORS TO H.M. GOVERNMENT

DIRECTORS:
W. L. McKNIGHT (U.S.A.)
C. B. SAMPAIR (U.S.A.)
R. W. YOUNG (U.S.A.)

TELEPHONE:
TEMPLE BAR 6363/6

November 30TH, 1955.
Dictated November 25th, 1955.

Prof. G. NATTA,
Politecnico di Milano
MILANO, Italy

Dear Prof. Natta,

I recall with pleasure the conversation we had at the "American Cocktail Party" during the recent International Congress of Pure and Applied Chemistry at Zuerich. At that time you were kind enough to invite me to stop in the next time I am in Italy, and this opportunity will arise when I will be in Milan on Sunday and Monday, December 4th and 5th.

Unfortunately I have such a wide schedule, that I cannot stay more than one night and the better part of Monday at your beautiful city which I have not visited since I passed through Milan as an American officer during the last war. My exact itinerary is as follows:-

Arrival at Milan Sunday December 4th at 16.45 (from Zuerich)
Departure for Rome Monday December 5th at 17.15

I have reserved a room at the Hotel Palazio ed Ambasciatori and have also written to Montecatini (Dr. G. Saccenti), that I would like to visit with them during those few available hours. Do you think, that there is a chance of seeing you also while I am in Milan? Could you, for instance, possibly do me the favour to share a meal with me at my hotel (either Sunday dinner or Monday breakfast). I really apologize, but it would certainly be wonderful, if you could let me have a bit of your time and leave me a message at my hotel when and where I could meet you.

Sincerely yours,

A. Laurence

Dr. A.E. LAURENCE
Foreign Technical Representative
Central Research.

AEL/IS. In the absence of

Just as guest a St. Paul (99 Kingsley Av. Minnesota)

612

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CHEMISTRY
CAMBRIDGE 39, MASSACHUSETTS

Answered

October 28, 1955

Professor Giulio Natta
Instituto di Chimica Industriele
Politechico di Milano
Milano, Italy

Dear Professor Natta:

Dr. Sani has given me the polystyrene which you so kindly sent. I have delayed sending you a sample of Alfin polystyrene in order to take advantage of a few improvements in the catalyst which we have made lately. We want to give you our very best sample. However our best polymer will probably not have the good characteristics of yours. We have never regarded the Alfin catalyst unique for styrene.

For a similar reason the sample of Alfin polybutadiene has not been prepared. I expect to have both samples ready within ten days and will send them.

Thank you very much for your sample and for the other information Dr. Sani gave me. We are very much interested in your fine work and are glad of the opportunity which Dr. Sani's visit has given of getting better acquainted.

Sincerely yours,

Avery A. Morton

Avery A. Morton

AAM/MC

January 28, 1955

Dr. H.S.Gutowsky
Department of Chemistry and
Chemical Engineering
University of Illinois
U r b a n a - Illinois - U.S.A

Dear Dr. Gutowsky,

I received your letter of January 14, and I shall be very glad to send you small samples of the following compounds: triethyl aluminum, dichloride-monoethyl aluminum, and dichloride-diethyl aluminum that are inflammable when in contact with air.

In a short time I shall be able to send you some more stable compounds, that is: hexyl- or octyl-aluminum, and isobutyl-aluminum.

I am very preoccupied because of the danger in sending the inflammable ones and I doubt that they may be not accepted at all. If some acquaintance of yours, who can assume all the responsabilities, is going to come in Europe, I could give him these samples, or better, let me know if I may send you the samples dissolved in solvents, so that the danger of self-ignition is reduced.

Awaiting your reply, I am,

Very truly yours,

G.Natta

UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

The William Albert Noyes Laboratory

January 14, 1955

Dr. Giulio Natta
Department of Chemistry
Politicnio of Milan
Milan, Italy

Dear Dr. Natta:

The October 18, 1954 issue of Chemical and Engineering News carried an account of the paper you presented on ethylene polymerization kinetics in the presence of tri-ethyl aluminum.

Several years ago I did some research on the dimerization of aluminum alkyls, and more recently I've been developing the use of nuclear magnetic resonance for structural determination. (See reprints inclosed.) I think it might prove interesting to investigate the proton magnetic resonance in aluminum tri-methyl and aluminum tri-ethyl.

The preparation of these compounds is somewhat of a chore. So I wonder if it might be possible to purchase small samples (say 0.5 ml. of each) from you.

Very truly yours,

H. S. Gutowsky

HSG:sm
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

Dear,

December 9, 1955

Professor G. Natta
Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

May I approach you today with the following matter.

Professor E.G. Stern of our Institute is planning to visit Europe in January and February of 1956.

Professor Stern is a very prominent man in biochemistry. He specializes in the physical and chemical methods for the characterization of macromolecules, particularly with reference to ultracentrifuge, electrophoresis, diffusion and lightscattering. He has also worked on enzymatic synthesis of macromolecules to a great extent.

Professor Stern would very much like to visit your laboratories; I am quite sure that you will be greatly interested in what he can report to you on new developments in this country.

Any consideration you may extend to Professor Stern when he visits you will be very much appreciated.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

H:ZB

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

November 16, 1955

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of November 10th, 1955, with all its good news. I am very glad that the attitude of the U.S. authorities is now entirely favorable to your visit and I am sure that all previous misconceptions and misunderstandings have been now cleared away. As for the program of your visit I would like to submit to you the following tentative schedule.

June 25 - 29: Visits of laboratories in the New York area.

June 30 - July 1: Travelling to New London

July 2 - July 6: Gordon Research Conference on High Polymers

July 9 - July 27: Visits of laboratories in Boston, Springfield, Schenectady, Chicago area, Dayton, Charleston, Washington, Wilmington, Philadelphia.

July 30 - August 3: Gordon Research Conference on Elastomers.

After August 4th - return to Europe or vacation in the U.S.A., which ever you desire.

There is, of course, a tremendous demand for lectures and discussions by you, and there will be no possibility to satisfy all needs. In fact to organize a lecture tour for you through the U.S.A. is like arranging a conducting tour for Toscanini. Besides the two Gordon Conference Weeks you will have four more weeks for travelling and lecturing.

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

Having on experiences gained by the visits of other distinguished scientists I would suggest that we do not schedule more than four visits per week, which would make a total of about 18 visits to various Universities and Industrial Laboratories.

I already have a series of organizations lined up for you such as Dabot, Dupont, Monsanto, Dow, Standard Oil of Indiana, Hercules Powder, General Electric, American Cyanamid, Carbon & Carbide, M.I.T., Polytechnic Institute of Brooklyn, National Bureau of Standards and Bell Telephone Company.

As soon as the list is more definite I shall submit it to you for approval. Please kindly give my sincerest thanks to Dr. Giustiniani for his kind attitude towards my visit in Milano, and assure him that we all shall be very pleased to see him in this Country next summer.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

HM:ff H. Mark

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

December 9, 1955

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

I would like to take this opportunity to thank you for your very kind efforts in helping me to arrange my program in Italy.

My wife and I intend to leave New York by plane on March 21st, and arrive in Milano in the afternoon of March 22nd, 1956. We can stay until the evening of March 27th, at which date we are supposed to take the overnight train to Rome, where I am expected to arrive on the morning of March 28th. As a consequence, I shall be in Milano three week days (March 23, 26, and 27) and one weekend (March 24 and 25).

All this time I shall be very glad to present progress reports to Italian Industries (Montecatini, Pirelli, Rhodiatoce) and, if you wish, also to deliver one or two lectures to learned Societies on the progress of Polymer Science in this country.

I would be greatly obliged to you if you could get in touch with Professor Nasini concerning my program, and mainly let me know how you want to use me for whatever lectures or discussions you want to organize.

It is a great pleasure for me to come to Milano again and I am particularly glad that this time, my wife will be with me.

Please kindly accept for yourself and for all the members of your family my kindest personal regards and best wishes for a happy holiday season. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

January 19, 1956

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1, New York, USA

My dear Professor Mark,

I wish to inform you that the Polymer Co., that is a consociate Company with the Montecatini, should be very pleased if you may visit its Laboratories in Terni and give a lecture. If you agree, they could come to Rome in the morning and take you by car to Terni, and again to Rome in the evening. The Polymer Co. is particularly interested in the uses of high polymers as fibers.

I wish to propose you a schedule for your stay in Italy:

Friday 23rd March		- Lecture at the Montecatini
Saturday 24th (morning)	"	- Lecture at the Pirelli
Sunday 25th	"	- Excursion to the Lakes (Stresa)
Monday 26th	"	- Symposium at the Polytechnic
Tuesday 27th	"	- Journey to Rome, or trip to Turin and journey Turin-Rome in the night 27-28th March
Wednesday 28th	"	- Lecture in Rome
Thursday 29	"	- Lecture in Terni

I have already talked about it with Prof. Giacomello, who should prefer that you give the lecture in Rome on March 28, instead of March 29.

We all are looking forward to seeing you in Milan and to discussing with you several very interesting arguments.

With my best personal regards and best wishes, I am,

Very sincerely yours,

Giulio Natta

P.S. - I received with delay the wedding card of your son Peter, and I se
you together with Rosita, our best wishes and congratulations.

I beg you to confirm mo me if you received our manuscript: Natta,
radini- "Struttura del 1-2 polibutadiene cristallino.... ", that I
sent you on December 3, 1955, and when you think it will be publis

March 31, 1955

Dr. H.S.Gutowsky
University of Illinois
Department of Chemistry and
Chemical Engineering
U R B A N A - Illinois

Dear Dr. Gutowsky,

I received your letter of March 21, In this time we have no more aluminum alkyls, all being used in our experiments, but it is probable that we shall prepare aluminum triethyl in the next weeks of April.

We should like better to give you the alkyls in the hydrocarbons solution because we observed that with chlorurated solvents, like CCl_4 or $CHCl_3$, it takes place a aluminum alkyl decomposition, that is slow at room temperature bu fast at higher temperatures. We are very careful in carrying the aluminum alkyls, as serious accidents occurred in their handling: in a fire caused by aluminum alkyls, a coworker of mine was in danger of his life and two of his workers died. For these reasons I should like better to deliver the samples if possible, to a person appointed by you, because I am very preoccupied with my responsabilities. The Custom-House officers might open the packets and, therefore, I do not feel sure even with a well done package.

Perhaps, in two months I shall have aluminum triisobutyl, that it is less dangerous. I should like better to send you this produc

Best regards,

Very truly yours,

(Prof.G.Natta)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

December 22, 1955

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of December 17, 1955.

Concerning your forthcoming visit to the United States, I am sure that everything will work out quite well and that it will be possible for you to visit all the companies provided you could extend your stay 2 to 10 weeks.

In the very near future, we shall submit to you a tentative itinerary for you to study and make comments. In the meanwhile, please accept my kindest personal regards and best wishes for the Holiday Season. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:GR

214

January 11, 1956

Professor Herman Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1, New York, U.S.A.

My dear Professor Mark,

Many thanks for your kind letter of December 22, and for the care with which you are looking after my conferences tour in the U.S.A.

As I wrote to you in my letter of December 17, I should beg you to wait before fixing a definitive schedule, as I do not know, till now, if I shall be able to remain in the U.S.A. during the entire period among the three conferences of the Gordon . May be, I must return to Milan on July 7-8, and come back to the U.S.A. on the end of July to give the last conference.

In this case, I think it is better that I give only the Gordon Conferences and, perhaps, some other at the Universities. In fact, as it should be too embarassing make a selection among the American Companies in accepting invitations from some company and not from another, I think it may be better not to give lectures by chemical companies.

We may speak about this argument during your stay in Milan, and I thank you since now, for your very appreciated counsels, and for very kind interest.

During your stay in Milan, you may give the lectures at the Montecatini and at the Pirelli. In regard to your lecture at the Rhodiatoce, I am sorry, but it was not possible to arrange a separated lecture. Most probably, some people from Rhodiatoce (that is a consociate Company with the Montecatini) will be present at your lecture at the Montecatini. Please let me know the exacte date that you prefer for these lectures.

With my deepest thanks, I send again to Mimi and you my best wishes for an Happy New Year.

Very sincerely yours,

G. Natta

Ann

December 17, 1955

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookly
89 Livingston Street
Brooklyn 1; New York, U.S.A.

My dear Professor Mark,

Many thanks for your kind letter of December 8, and for the tentative schedule you proposed for my travel to U.S.A.

As I am invited also to give a lecture at the Gordon Researc Conference on "Organic Reactions and Processes", I should have subdivided the arguments of the three lectures as follows:

Lecture on "Organic Reactions and Processes" (June 11) - "Stereospecii Polymerisation of unsaturated hydrocarbons"

Lecture on "High Polymers" (July 1-5) - "Isotactical Polymers"

Lecture on "Elastomers" (July 29-August 3) - "Synthesis by anionic polymerisation of new elastomers and unsaturated cristallin polymers"

I am foreseeing I shall come to the U.S.A. on about June 8-9, but I am not sure, till now, if I must return to Milan after July 15, for some days. In this case I shall come again to the U.S.A. to partecipate to the Conference on "Elastomers" in which I am interested very much. Therefore, I shall prefer to wait, if possible, before fix a definitive schedule.

In the schedule you sent to me, a great number of important and interesting companies are indicated, and I shall be glad to visit them, but I do not know if it shall be possible!

I have been invited also, very kindly, from Dow, Goodrich, Hercules Powder, Union Carbide and Carbon, Cyanamid, Pittsburgh Plate Glass Company and from the University of Ithaca. I do not know really how I may do to visit all them!

./.

December 17, 1955

I might perhaps renounce to visit the National Bureau of Standards in Washington, delaying it at other opportunity. I wish to decide later also about your proposal of a trip to the West Cost, that has exited very much Rosita.

I hope your received already the paper "Natta, Corradini - Sulla struttura del 1-2 polibutadiene cristallino e di altri polimeri sindiotattici" I sent you on December 3.

Next month I shall send you other works for the publication, if it is not of excessive trouble for you to let them translated into English.

With my kindest personal regards and best wishes for Mimi an you also from Rosita, I remain,

Very sincerely yours,

G. Natta

P.S. I am receiving just now your letter of December 9, concerning Prof. Stern. I shall be very glad to meet him in Milan, and I shall write to you again if it is the possibility to arrange a lecture for him in Milan.

605

December 3, 1955

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookl
99 Livingston Street
B R O O K L Y N 1, New York, U

My dear Professor Mark,

Thank you very much for your kind letter of November 16 with the provisional program of my visits in the U.S.A.. I too think it is no possible to schedule more than four visits per week, and, perhaps these also are too many.

I received also an invitation from Esso Research, The Goodric Co., Standard Oil of New Jersey, The Phillips Petroleum Co., Dace and Co nell University, but I do not know till now, if it is possible for me t visit all the Companies that invited me.

I am looking forward to seeing you in Milan next spring, when you will go to Rehovot for the Symposium. We all shall be very pleased you may stay in Milan also from 18th to 20th April, because during this period thare will be "La Giornata della Chimica" at the "Fiera Campiona ria". This year the "Giornata della Chimica" will have as subject "Chemistry and Agricolture". We hope you will be so kind to give a lecture on this argument, for instance "Macromolecules and agriculture", at the Fiera Campionaria. Of corse, an honorarium will be given to you for thi lecture. I hope to hear from you soon on this subject.

I am glad to inform you that, besides the invitation from the Montecatini, also the Pirelli Co. would be glad if you will give a lect for them, and they will give you the same honorarium as for your preced lectures at Pirelli. This Company would be interested very much in the field of rubbers and textile fibers for tyres.

I am sending you, under separate cover, an Italian paper:
G. Natta, P. Corradini - Sulla struttura del 1-2 polibutadiene cristallin e di altri polimeri "sindiotattici" -
for its publication on the "Journal of Polymer Science" and, please, exc my troubling you for its translation into English. As the publication o our first patents is immanent, I hope to be able to send you, next mont more detailed papers on chemical part of the polymerisation.

With my kindest personal regards and best wishes, I am,

Very sincerely yours,

G. Natta

November 10, 1955

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookl
99 Livingston Street
B R O O K L Y N 1 , New York

Dear Professor Mark,

Thank you very much for your kind letters of October 18 and November 3.

I have already talked with Ing. Giustiniani, General Manager of the Montecatini Co? and he will be very pleased if you will be able to dedicate a day for discussions on new events in the High Polymer Fi with the chemists of Montecatini.

I am glad to inform you that I have had a colloquy with the Vice-consul of U.S.A. in Milan and I have been informed that my visa was not granted before for a misunderstanding and now, therefore, ther is no more difficulty.

I have not yet decided the exacte date of my coming to the U.S.A., but it will be near June 25. As I received an invitation also by the Gordon Research Conference on Elastomers, which be held during the week of July 30 to August 3, so I will be able to dispose of the e tire month of July for my stay in U.S.A.

Also Ing. Giustiniani will come to the U.S.A. during the same period and will partecipate to the Gordon Research Conference on High Polymers. He will be able to speak on technicl aspects of production and uses of the new cristallin polymers of alpha-olefins and of styren

Many thanks also for your kind letter of November 1, in whic you offer to carry out the translation of my paper. I will send you, u der separate cover, a paper on the structure of cristallin polybutadie nes for its publication on the "Journal of Polymer Science". I should be very grateful if you could send me a copy of the translation, just to have it, without delaying the printing.

Rosita and I will be very happy to see Mimi and You in Milan and send our best wishes.

Very sincerely yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

October 13, 1955

Professor G. Natta
Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of October 5, 1955.

Professor Overberger told me that he has already received an answer from you for the Gordon Research Conference and that many universities and industries are going to invite you to give lectures while you are in this country. Professor Overberger will write you again in the near future.

According to all our information, there should be no difficulty with your visa this time; apparently the reason why there was a snarl in issuing your visa the last time was a misunderstanding at the Consulate.

We are all very happy that Rosita is coming with you and are sure that she will enjoy the trip. Mimi and I shall be in Milano around March 20, 1956 for 3 or 4 days and I would be very pleased to reserve one day for discussions with the chemists at Montecatini if you think there will be interest in a lecture on new events in the Highpolymer Field.

With kindest personal regards and best wishes, I am, as always,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

445

Americe

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

September 29, 1955

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I want to join Professor Overberger in extending to you a very cordial invitation to appear as a speaker at the Gordon Research Conference on High polymers in July 1956, and I can assure you that everybody will greatly enjoy your presence, and look forward to your contribution.

As far as your trip is concerned there is all reason to believe that there will be no more hesitation on the part of the responsible officials to grant you the necessary Visa.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

The William Albert Noyes Laboratory

April 20, 1955

Professor G. Natta
Istituto di Chimica Industriale
del Politicnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

In view of the accidents in handling the aluminum alkyls, I can understand your caution about their shipment. My own experience with them was sufficiently discouraging to make me try begging samples elsewhere rather than repeating their synthesis. I'd hoped that the small samples we require (0.01 ml) would reduce the hazard of shipment to a negligible level.

Aliphatic hydrocarbons would interfere with the measurements we want to make. However, benzene should be satisfactory in all likelihood. For the research program in progress, we need only the triethyl compound. If 0.1 ml of a 5 to 20 mole per cent solution of this is not "safe" for shipment, then I think we'd best prepare our own here.

If you have any problems regarding the structures of some of your preparations and they can be shipped safely either as pure liquids or in benzene solution, we might be able to help you with them. Because of my work with Pitzer in 1946 on the nature of the dimers, I have great interest in these compounds.

With best regards,

Sincerely yours,

H. S. Gutowsky

HSG:sm

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

September 6, 1955

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of August 26th, 1955, your very nice card and the reprint of your new article in the Makromolekulare Chemie.

As a consequence of this article I suggest that we put your proposal for official acceptance of the words "isotactic" and "syndiotactic" again on the agenda of our Commission for the Meeting in Rehovoth in April - 1956.

By then the members of the Commission will have had a chance to study the whole question in detail and to make up their minds in a better way than was the case at the meeting in Zurich.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, 26.8.1955
TELEF. 292.125 - 292.126

Prof. MARK H.
Director Polymer Research Institute
Polytechnic Institute of Brooklyn
99, Livingston Street - Brooklyn - N.Y.

Dear Prof. Mark

I thank you very much for your kind letter, and the copy of the "Report on the Meeting of the Macromolecular Commission in Zurich, July 1955" y ou have sent to me. I would like to thank you also for the kind comments you made about our work on the crystalline polymers of alpha substituted olefins which we call "isotactic".

I agree that it may be premature at present to adopt the nomenclature which I have suggested as a better one may be found.

The remark you make: "it is not exactly estabilished what kind of regularity is responsible for the peculiar behaviour of these materials" is not really justified according to me. Our data on the structure of polystyrene recently published (Makromolekulare Chemie, XVI, 77-80 (1955), of which I send you a copy, fully confirm our previous hypotesis on the structure of the chains of the "isotactic" polymers.

With kinds regards, yours sincerely

G.NATTA

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

May 26, 1955

Prof. G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of May 18th, 1955, with the beautiful picture of the isotactical polystyrene and the copy of your letter to Professor Kratky.

Meanwhile I have placed your proposal on the program of the Commission on Macromolecules and have sent a copy of your letter to all members. Of course I have also invited you and hope very much that you will be personally present at the first union of our Commission for which you have already received an invitation. I have also invited Mr. Gordon M. Kline of the Division on Plastics and High Polymers and he will either be present himself or send a representative.

I would be very much obliged if you could bring with you 20-30 reprints of your article in the J. Pol. Sci., because I am sure that members of the Commission will be anxious to get such a reprint. Since your article appeared there is a tremendous interest in your new polymers, much greater that the interest in the low pressure polyethylene which does not offer such important fundamental new aspects. Let me congratulate you on this outstanding discovery.

Mimi and I are not yet sure of our exact traveling plans but, we can discuss this in Zurich. We would be delighted to visit you in Campoluc, and thank you very much for the kind invitation.

I am looking forward with much pleasure to seeing you, and until then, I am, with kindest personal regards and best wishes, as always,

Very sincerely yours,

H. Mark

x after the Zurich Conference

HM:ff

H. Mark

28 Ottobre 1955

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
Brooklyn 1, New York, U.S.A.

Caro Professor Mark,

La ringrazio molto della Sua lettera del 18 Ottobre e delle notizie che mi dà sul mio visto.

La Dow Company si è interessata molto della cosa ed il Console Americano mi ha invitato ad un colloquio nella prossima settimana, per cui spero che la cosa venga presto risolta.

Rosita ed io siamo lieti di apprendere che Lei e la Signora Mimi venrete a Milano il 20 Marzo prossimo, e mi ripromettto di parlare alla Montecatini per organizzare una Sua conferenza sui nuovi avvenimenti nel campo degli alti polimeri.

Molti cordiali saluti.

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

November 3, 1965

Professor G. Natta
Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of October 28, 1965.

I have meanwhile started to explore what universities and companies would like to have you as a lecturer during your stay in the United States next year and it turns out that almost every distinguished organization - duPont, Dow, Monsanto, Standard Oil, etc., wants you to visit them.

In order to organize your program, I would be very much obliged to you if you kindly could let me know when you would arrive and how long you could stay here.

Mimi and I are looking forward with great pleasure to seeing you and Rosita in the spring. In the meanwhile, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

MC:CB

H. Mark

(31)

5 Ottobre 1955

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1, New York, U.S.A.

Caro Professor Mark,

La ringrazio vivamente per la Sua gentile lettera del 29 Settembre, relativa all'invito alle Gordon Research Conferences. Considero un grande piacere ed un grande onore essere invitato a tali conferenze.

Rosita, che non è ancora stata negli U.S.A., sarà molto lieta di venire anche lei e di rivedere, dopo tanti anni, la signora Mimi.

La ringrazio, per la Sua gentile offerta di interessarsi per il mio visto. Non conosco quali possano essere le ragioni per le quali mi era stato negato, probabilmente si tratta di informazioni errate avute chissà come. A meno che non sia dovuto al fatto che sono stato in Polonia nel 1947, insieme ad un gruppo di professori designati dal Governo Italiano (Ministero dell'Istruzione). Ma anche tale ragione appare strana perchè altri miei colleghi, che erano venuti in Polonia in tale epoca, (Prof. Abetti, Prof. Caglioti, ecc.), hanno avuto successivamente il visto.

Nel caso che vi fossero ancora difficoltà, non si potrebbe proporre all'Ambasciata Americana di fare un'accurata indagine sul mio conto? Da parte Italiana sia la Montecatini che altre persone possono dare tutte le informazioni e le garanzie necessarie.

Molti cordiali saluti, e ringraziamenti.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

September 28, 1955

Professor G. Natta
Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Many thanks for your kind letter of September 23, 1955.

I look forward to seeing you next year before the Rehovoth Meeting. I expect to be in Milano and Rome for at least a week. I am most happy that you will participate at the Rehovoth Meeting.

Thank you so much for sending the lecture which you gave before the Symposium during the Congress of Chemistry in Zurich. I anticipate receiving it soon. We are always delighted to publish any of your most interesting and important papers.

Concerning another paper of yours, please kindly send it also; we shall try to publish it as quickly as we can.

With kindest personal regards and best wishes, I am, as always,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

September 6, 1955

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of August 26th, 1955, your very nice card and the reprint of your new article in the Makromolekulare Chemie.

As a consequence of this article I suggest that we put your proposal for official acceptance of the words "isotactic" and "syndiotactic" again on the agenda of our Commission for the Meeting in Rehovoth in April - 1956.

By then the members of the Commission will have had a chance to study the whole question in detail and to make up their minds in a better way than was the case at the meeting in Zurich.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

4.6 [illegible]

Herrn Dr. [illegible]
DeBell & Richardson, Inc.
[illegible] (Connecticut)

[illegible] Herr,

Ich [illegible] mich zu entschuldigen, [illegible] auf Ihren [illegible] vom [illegible] April [illegible]. Ich war in [illegible] Tonkin [illegible] von einem [illegible] Fieberbus und die [illegible] Arbeit [illegible] t .

[illegible] inzwischen gefunden haben und [illegible] Ihnen bei dieser Gelegenheit meine Glückwünsche [illegible].

[illegible] Polystyrol ist die [illegible] Polymerisation die gleiche Stereoisomerie [illegible] (isotactisches Polymer). [illegible] umfangst einen Artikel über die neuen [illegible] Polymeren in J. Am.Chem.Soc. veröffentlicht . Eine weitere Arbeit über die Kristallisierbarkeit [illegible] in Kürze in der "[illegible]" veröffentlicht werden .

Ich [illegible] in [illegible] sowie am 7. [illegible] beim USPAC-Chef [illegible] vorzutragen.

Was die [illegible] unserer Patente [illegible], ist es [illegible] die Ges. "[illegible]" in [illegible] zu verwandeln, da diese [illegible]

Mit den besten Grüßen

(Prof. [illegible])

Amerine

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

January 19, 1955

Dr. G. Natta
Instituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vince, 32
Milano, Italy

My dear Professor Natta,

Many thanks for your very kind letters of January 11th and 12th, 1955. Mimi and I are very glad that you like the drawing which she made, and that you will place it in your Institute.

Please accept my sincerest congratulations for the very interesting and significant new results which you have obtained in your recent work. I agree with you that the possibility to prepare Crystalline Polymeric Hydrocarbons is of the greatest importance both in theoretical and practical respect. I shall be very glad if you would prepare a short report to the Commission on Macromolecules of IUPAC and we could discuss this matter at the meetings of their Commission in Zurich. Of course you will be invited to give the report personally to the Commission.

The Symposium on Macromolecules will also be held in Zurich immediatly after the Congress of the IUPAC: Professors Hopff and Signer are responsible for the program, please write to one of them and suggest to have your paper put on the program. The meeting on the "Rheology of Very Dilute Polymer Solutions" has nothing to do with the Symposium in Zurich; it will be held around July 15th, in Leiden as an independent conference.

Please accept my kindest personal regards and best wishes.

As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

ADDRESS REPLY TO
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

May 3, 1955

IN YOUR REPLY
REFER TO FILE NO.
7.1

AIR MAIL

Professor G. Natta
Instituto di Chimica Industriale del Politecnico
Milano, Italy

Subject: Polybutadiene

Dear Professor Natta:

I am writing to you at the suggestion of Professor P. J. Flory, who in a recent letter, informed me of your successful preparation of pure 1,4-trans polybutadiene. This is certainly a very significant accomplishment. I have been interested in the crystallization behavior of polymers in general and recently in the melting behavior of the emulsion polymerized polybutadienes. At Professor Flory's suggestion, I am writing to ask whether you would be able to communicate to me the melting temperature of the polybutadiene you have prepared and perhaps also the density of the unit cell if it is available. This information would be extremely useful in understanding the melting behavior of copolymers.

I am enclosing a recent report which summarizes our work on polybutadiene and I am sure that you will see the importance of the requested information.

Thanking you in advance and hoping to hear from you in the near future, I am

Very truly yours,

Leo Mandelkern

Leo Mandelkern
Rubber Section

Enc.

262

September 23, 1955

Professor H.F.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1, New York, U.S.A.

Dear Professor Mark,

I thank you very much for your kind letter of September 6.

I think I shall partecipate to the meeting in Rehovot next April, but I hope to be able to see you before in Italy.

As I remember your wish of publishing some of our works I am sending you under separate cover, the lecture I held before the Symposium during the Congress of Chemistry in Eurich:

G.Natta, P.Pino, G.Mazzanti - "Synthesis and structure of some cristallin polyhydrocarbons containing in the principal chain asymmetric carbon atoms".

I shall have ready, in few days, for the publication in the "Journal of Polymer Science" also other works, one on the complete structure of polybutadiene 1-2. If you think that the Polymer Science can quickly publish it, I should like to send you it.

With my kindest personal regards, I remain,

Very sincerely yours

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

August 23, 1955

Professor Giulio Natta
Direttore Dell 'Istituto di
Chimica Industriale
Del R. Politecnico di Milano
Paizza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

May I call your attention today to the following matter.

Dr. Arthur L. Fox, who is the Director of Research for the Colgate Palmolive Company is planning to visit Europe during September and October of 1955.

Dr. Fox is very much interested in visiting you and your associates and has suggested September 24th as a possible day for such a visit. I have no doubt that a meeting between you and Dr. Fox will prove most beneficial to all concerned.

If you feel that you would be interested in seeing Dr. Fox, may I kindly suggest that you get in touch with him directly. His address is:

Dr. Arthur L. Fox, Director of Research
Colgate-Palmolive Company
105 Hudson Street
Jersey City 2, New Jersey.

Dr. Fox plans to leave for Europe on September 9th. After that time, you can reach him at the following address:

Dr. Arthur L. Fox c/o Mr. Roger Letour
5 Boulevard de la Mission
Marchon, Courbeboie Seine, France.

Any consideration you may give to Dr. Fox will be greatly appreciated. With kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

August 1, 1955

Prof. G. Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I would like to take this opportunity to express my many thanks for the very kind and gracious hospitality which was extended to me during my recent visit.

I hope to have the pleasure of seeing you again in the not to distant future. In the meanwhile, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

July 7, 1955

Dr. G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Dr. Natta,

I would like to take this opportunity to express my many thanks for the very kind wishes and congratulations extended to me on the occasion of my sixtieth birthday.

Your very kind letter of May 1st, 1955 is deeply and sincerely appreciated.

Thanking you again, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

28 Giugno 1955

Egr. Prof. H. Mark
c/o Prof. Kratky
Halbarthgasse 5
GRAZ (Austria)

Caro Professor Mark,

Ho saputo da Immergut che Lei ha lasciato Brooklyn diretto in Europa e dato che non so il Suo indirizzo, spero che il Prof. Kratky possa farLe avere questa mia lettera.

Le sarei molto grato se mi informasse riguardo al Suo programma di viaggio in Europa e ai Suoi indirizzi.

Nel caso che Lei avesse piacere di svolgere delle conferenze a Milano come ha fatto gli anni scorsi, La informo che la Soc. Montecatini sarebbe lieta di invitarLa. Sarebbe però necessario che tali conferenze avvenissero prima del 10 luglio o dopo il 15 settembre, perchè la massima parte dei dirigenti e dei tecnici della Montecatini sono in vacanza in periodi di tempo compresi tra il 15 luglio ed il 15 settembre.

In attesa di incontrarLa a Milano oppure a Zurigo per il Congresso, invio a Lei ed alla Sua gentile Signora i più cordiali saluti.

Giulio Natta

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

May, 18, 1955
MILANO,
TELEF. 292.125 - 292.126

Prof. Mark.

As you suggested me, I sent to Professor Kratky a letter of which I am enclosing herewith a copy.

I think that the nomenclature problems maight interest not only the Macromolecular Commission but also that one of Applied Chemistry, Division of Plastics and High Polymers.

I am sending you, under separate cover some reprints of ours, about the cristalline polymers structure. I shall give a hint of their properties during the "Fourth World Petroleum Congress" in Rome.

I have in mind to send you, in a short time, sons comunication on the structure of other news polymers for their publication in the Polymer Science.

As you will know I have been invited by Prof.Hopff to hold a lecture in Zurich during the Congress on Macromolecular Chemistry, and I will expose more amply, in such an occasion, the physical properties of the isotactical polymers.

With my best personal regards

Sincerely yours

G.Natta

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, May 14, 1955
TELEF. 292.125 - 292.126

Professor H.V.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookly
99 Livingston Street
B r o o k l y n 1, New York, U.S

Dear Professor Mark,

As you suggested me, I sent to Professor Kratky a letter of which I am enclosing herewith a copy.

I think that ~~I should propose, if you have no objections to make, that~~ The nomenclature problems ~~are discussed by~~ highly interest not only the Macromolecular Commission ~~and by the one~~ but also that one of Applied Chemistry, Division of Plastics and High Polymers.

I am sending you, under separate cover, some reprints of ours, about the cristalline polymers structure.

I shall give a hint of their properties during the "Fourth World Petroleum Congress" in Rome.

I have in mind to send you, in a short time, some ~~com~~ comunications on the structure of other news polymers for their publication in the Polymer Science.

As you will know I have been invited by Prof.Hopff to hold a ~~conference~~ lecture in Zurich during the Congress on Macromolecular Chemistry, and I will expose more amply, in such an occasion, the physical properties of the isotactical polymers.

With my best personal regards.

Sincerely yours,

G.Natta

P.S. [illegible]

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

May 16, 1955

Dr. G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32,
Milano, Italy

Dear Dr. Natta,

I want to take this opportunity to thank you for your very kind letter of congratulations extended to me on the occasion of my sixtieth birthday.

Thanking you again, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, 1 Maggio 1955
TELEF. 292.125 - 292.126

Copia

Professor H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1, New York

Caro Professor Mark,

Per il Suo sessantesimo compleanno Le invio i miei più vivi auguri e rallegramenti. Mi spiace di essere lontano e di non poter festeggiare con Lei l'avvenimento, ma ci ripromettiamo in occasione della Sua prossima venuta in Europa, di fare un prolungamento dei festeggiamenti in Italia.

Io La ricordo quando, ancora giovanissimo, Lei fu tra i primi ad intuire la grande importanza della chimica-fisica delle macromolecole, campo in cui Lei ha portato contributi teorici e pratici di fondamentale importanza.

In America Lei ha completato la Sua visione teorica dei problemi con una vasta cultura di carattere applicativo, che La rende la persona avente le cognizioni più vaste e più complete nel campo delle macromolecole.

I 35 anni di lavoro che Lei ha dedicato a questo ramo della Scienza hanno portato frutti incalcolabili e sono certo che altri ancora Lei raccoglierà nella Sua instancabile attività che Lei continua con giovanile passione.

Molti affettuosi auguri e saluti.

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

March 8, 1955

Professor Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of March 4th, with all its most interesting news about the very important progress on the various "isotactic" polymers, which you have discovered, and which you are now exploring in such a systamatic manner in your laboratory. Of course it would be very desirable if you could present this new development in Zurich at the International Congress, July 21-27, or at the Macromolecular Symposium, July 28-29. In respect to the first please write to Professor Karrer, in respect to the second please write to Professor Signer.

I also want to point out that we shall be glad to publish any number of papers of yours in the J. Pol. Sci., and I shall do my best to speed up their publication as much as possible. A letter to the Editor could appear 4-6 weeks after the manuscript has been received; an article takes about 4-6 months, but this can be accelerated if the article is somewhat longer.

I am sorry that I inconvenienced you by telling Dr. Hal Johnson of Monsanto, that you had succeeded in obtaining crystalline polystyrene, but I thought the fact as such would not be confidential any more since you had reported it on December 11th, 1954, to the Academy of Sciences in Rome. Since several Companies in this country (Hercules Powder, Carbide and Carbon, Standard Oil of New Jersey) are now very active in the field of metalalkylcatalysts of the Ziegler type and other Companies (Phillips Petroleum, Standard Oil of California, Olin-Mathieson) are independently working in this field, there are now many new polyhydrocarbons being prepared, some of which may be somewhat similar to your own materials.

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

Crystalline polystyrene derivatives are already mentioned in the literature such as poly-alpha-methylstyrene (Kropa) and poly-2,5-dichlorostyrene (Baker) and it may be that one of the above named companies might come out with a crystalline polystyrene. If it were possible to publish a short note to the extent that you have already prepared a material of this type, it certainly could not hurt any of your priority claims in this country, but could only help them.

Of course, I do not know the patent policy of Montecatini and I am sure they have a very good reason to hold back with whatever information they have as a result of your work but, from the point of view of American Patent conditions a short statement that you have actually prepared a series of crystalline poly-alpha-alefines could only be of advantage.

As soon as I know my itinerary for this summer I shall write you again, and I want to thank you and Mrs. Natta very much for your kind invitation to visit you in your beautiful summer home. Nothing would please us more than to do this.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

C O P Y

POLYTECHNIC INSTITUTE OF BROOKLYN - 99 Livingston Street - Brooklyn1, New York

Polymer Research Institute
H.F.Mark, Director
C.G.Overberger, Associate Director

March 8, 1955

Prof. Dott. Ing. Giulio Natta
Direttore Istituto Chimica Industriale
Politecnico di
Milano - Piazza L.Da Vinci 32

Dear Professor Natta,

Many thanks for your kind letter of March 4th, with all its most interesting news about the very important progress on the various "isotactic" polymers, which you have discovered, and which you are exploring in such a systamatic manner in your laboratory. Of course it would be very desiderable if you could present this new development in Zurich at the International Congress, July 21+27, or at the Macromolecular Symposium, July 28-29. In respect th the first please write to Professor Karrer, in respect to the second please write to Professor Signer.

. . . . . .

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H.Mark

4 Marzo 1955

Professor H.Mark, Direttore
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN, New York, U.S.A.

Caro Mark,

La ringrazio per la Sua gradita lettera del 3 Febbraio. Invierò prossimamente a Lei, al Prof. Sadron ed al Prof. Krasky una relazione relativa alle nostre proposte per la nomenclatura.

Ho il piacere di informarla che abbiamo dato notevole sviluppo alle nostre ricerche nel campo dei polimeri che noi chiamiamo "isotattici" aventi una grande regolarità di struttura e contenenti sequenze di atomi di carbonio aventi tutti eguale configurazione.

Si è già iniziato da qualche mese la produzione di diversi nuovi polimeri su scala di impianti pilota ed ho l'impressione che i nuovi prodotti avranno larghe applicazioni. Sinora ho dovuto tenere riservate le notizie relative ai metodi di preparazione ed alle applicazioni. Anche nel manoscritto che ho inviato per il Mark-volume dell'Interscie Publisher sono stato spiacente di aver dovuto limitare le notizie. Poi però è quasi trascorso un anno dai nostri primi brevetti, ritengo che il luglio prossimo, in occasione del congresso di Zurigo, si possa annunciare più diffusamente i risultati e descrivere i principali nuovi polimeri con una relazione dettagliata sulle caratteristiche dei nuovi prodotti e con la presentazione di campioni dei prodotti ottenuti nell loro principali applicazioni, ed esporre una teoria generale sul meccanismo della loro formazione.

Oltre ad un enorme lavoro di carattere chimico e cinetico, noi abbiamo già raccolto in laboratorio una notevole quantità di materiale sperimentale sulla Struttura cristallina di una decina di polimeri isotattici diversi. Per alcuni abbiamo recentemente determinato la struttura completa in base all'analisi di Fourier. Si sono determinate delle relazioni tra struttura chimica, configurazione delle catene e caratteristiche meccaniche. Abbiamo inoltre fatto numerose ricerche viscosimetriche, osmometriche, dilatometriche, di spettrografia infrarossa a luce polarizzata, e misure sulla variazione di cristallinità con la temperatura.

Gradirei collegare tutti questi nuovi risultati in una relazione di carattere generale e perciò gradirei sapere da Lei se Lei è d'accordo che si presenti tale lavoro al Congresso di Zurigo.

Io potrò fare a Zurigo una comunicazione dal titolo: "Struttura e proprietà di polimeri lineari sintetici contenenti sequenze di atomi di carbonio asimmetrici aventi la stessa configurazione sterica oppure semplicemente "Struttura e proprietà dei polimeri isotattici". I lavori che presenterò a Zurigo potranno, se Lei crede, essere pubblicati contemporaneamente sul Polymer Science.

Le sarei molto grato se Lei potesse farmi conoscere al più presto il Suo parere riguardo alla presentazione dei miei lavori a Zurigo. Noi saremmo molto lieti se Lei potesse venire a trovarci a Milano con la Signora Mimi prima del congressi di Zurigo

In attesa di rivederLa Le invio i miei più cordiali saluti e ringraziamenti.

P.S. - Ho avuto ieri una visita da parte di Mr.Johnson, direttore del Development Department della Monsanto, il quale mi ha detto che aveva avuto da Lei delle notizie sul polistirolo cristallino. Mi è spiaciuto di non avergli potuto dare le notizie che desiderava sui nostri metodi di preparazione e sulle rese dei nostri procedimenti, perchè la Montecatini, che ha l'esclusività dei miei brevetti, preferisce attendere ancora qualche mese prima di parlarne, ossia sino a che le domande di tutti i brevetti principali saranno state presentate anche negli altri paesi al di fuori dell'Italia. Era prevedibile che industrie chimiche importanti si rivolgessero alla Montecatini per avere delle licenze. Credo che la Montecatini non abbia preso impegni con nessuno e credo che essa preferisca, prima di dare delle licenze, di avere iniziato una produzione commerciale che consenta di valutare i nuovi prodotti. Ritengo anche che i brevetti sui prodotti nuovi siano molto solidi.

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

February 21, 1955

Professor G. Natta
Direttore Dell 'Institute di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

A few days ago, we all had a great pleasure: a big box came and in it there was the beautiful medal which I received through your kindness from the Polytechnic Institute of Milano. Everybody admired the beautiful craftwork of the medal and we placed it in our best room. Mimi and I thank you and Renita very much for this lovely gift.

All the polymer chemists are now waiting for your note on the crystalline polystyrene. A few visitors who came from Europe recently brought some rumors about the most interesting results which you have gotten but nothing printed has yet appeared. Of course, if you want to have anything put in the Journal of Polymer Science, I shall do my best to have it appear as soon as possible.

I am already starting preparations for the Meeting in Zurich and I am looking forward with great pleasure to seeing you at this occasion. In the meanwhile, please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

25 Febbraio 1955

Prof. H.Mark, Direttore
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N , New York, U.S.A

Caro Professor Mark,

La ringrazio per la Sua gentile lettera del 21 c.m. dalla quale apprendo che finalmente la medaglia del Politecnico è arrivata a New York.

Alla Sua prossima venuta in Italia i Suoi amici milanesi Le consegneranno una riproduzione della stessa medaglia in oro, naturalmente non delle stesse dimensioni!

Noi abbiamo nel nostro laboratorio un tremendo lavoro. Oltre che la struttura del polistirolo cristallino e di altri polimeri di alfa-olefine, stiamo studiando una serie di altri polimeri cristallini aventi tutti eccezionale regolarità di struttura, ed esaminando le proprietà che appaiono molto interessanti. Il polistirolo cristallino ad alto peso molecolare resta cristallino ai raggi X sino a circa 230° e dilatometricamente presenta una transizione di 1° ordine tra 215-230°C.

Le manderò presto qualche lavoro per il Polymer Science. Abbiamo inoltre una grande quantità di materiale sulla parte relativa alla catalisi eterogenea ed alla sua interpretazione teorica che pubblicheremo subito dopo la pubblicazione dei nostri brevetti.

Penserei di presentare a Zurigo un ampio lavoro di carattere generale sulle relazioni tra proprietà e struttura dei nuovi tipi di polimeri, e penso che tale lavoro possa interessare i chimici polimeristi.

Preparerò anche una relazione per la Commissione delle Macromolecole, poichè sarà necessario adottare delle nuove nomenclature.

Avremo molto piacere di vederLa a Milano già prima del Congresso di Zurigo.

La prego di porgere i miei omaggi alla Signora Mark, a Lei molti cordialissimi saluti.

G.Natta

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

ADDRESS REPLY TO
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

109

IN YOUR REPLY
REFER TO FILE NO.
7.1

June 22, 1955

AIR MAIL

Professor G. Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci
32 Milano, Italy

Subject: Polybutadiene

Dear Professor Natta:

I wish to thank you very much for your letter of May 31, 1955 in which you were so very kind in forwarding the melting point of the all trans-1,4 polybutadiene. These results were very gratifying and agree very nicely with the melting points that we have obtained using the usual emulsion-polymerized polymers wherein the 1,4-trans content varies from 50 to 80%. When we publish our results we should like to mention your melting points, and you can be rest assured that we will make it extremely clear that this information was communicated to us by you, the inventor.

The polymorphism that you observe is very interesting and indicates that this is a general characteristic of the trans polyhydrocarbons. We are eagerly awaiting the results of the structural analyses since the densities of the unit cell will also be very useful quantities.

Once again, I would like to express my sincere thanks to you for your cooperation in furnishing the information you did. With kindest regards.

Sincerely yours,

Leo Mandelkern

Leo Mandelkern
Rubber Section

417

America

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

22 Sept. 1955

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Please accept my appreciation for your kind help in sending me the abstracts of the Milan meeting of last September. We are all very pleased with your outstanding work on synthesis of crystalline polymers, and I wish you continued success.

With kindest regards and best wishes,

Yours very sincerely,

Robert B. Mesrobian

Robert B. Mesrobian
Professor of Chemistry
Associate Director of
Polymer Research Institute

RBM:MT

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

TRIANGLE 5-6412

235

America

4 August 1955

Spedito libro
15/9/55

Professor G. Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci, 32
Milano, Italy

Dear Professor Natta:

During the past year we have been extremely fortunate in developing a number of interesting graft copolymers by the gamma ray irradiation of a radiation sensitive polymer with common vinyl monomers. The Atomic Energy Commission of the United States Government has patented this development and for legal reasons desires all background information leading to the invention. In the abstracts of one of our papers presented at the Milan meeting of the International Union of Pure and Applied Chemistry of last October some mention of this work was made. Since I have lost my copy of the abstracts of the meeting I should like to ask if you would be so kind as to have a copy of the abstracts sent to me by air-mail as soon as convenient. Please accept my appreciation for any help that you can give.

Hoping to see you in Brooklyn in the near future, I remain

Yours very sincerely,

Robert B. Mesrobian

Robert B. Mesrobian
Associate Director
Polymer Research Institute

Robert B. Mesrobian

RBM:MT

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

TRIANGLE 5-6412

12 April 1955

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32- Milano
Italy

Dear Professor Natta:

On May 16th Mr. Howard H. Irvin, Chief Chemist for the Marbon Chemical Division of the Borg-Warner Corporation, will be in Milan, Italy. Since I consult for his Company he has asked me if I would write a letter of introduction to you in order that he might visit your Institute at Milan. Also, since his Company produces large quantities of polystyrene and high styrene butadiene lattices he would very much like to talk with you about your new work on polystyrene which has just been described in the Journal of the American Chemical Society,

If you feel that you would like to discuss this work with Mr. Irvin I would be grateful if you would write to him at the following address to establish a definite visit for May 16th.

Mr. Howard H. Irvin
Chief Chemist
Marbon Chemical Division
Borg-Warner Corporation
1926 West Tenth Avenue
Gary, Indiana
U. S. A.

With many thanks and kindest regards, I am

Very sincerely yours,

Robert B. Mesrobian

Robert B. Mesrobian
Associate Director of the
Polymer Research Institute

RBM:MT

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

24 Jan. 1955

Professor Giulio Natta
Instituto Chimica Industriale
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

Enclosed with this letter please find a short manuscript based on one of my talks presented at the Milano Meeting. I must apologize for the lateness of this manuscript and if it is no longer possible to publish it then please discard it.

I should like to express my appreciation to you for the very excellent organization of the Polymer Conference and as well as could be determined, everyone present considered it a great success.

With kindest regards and best wishes, I am

Yours very sincerely,

Robert B. Mesrobian

Robert B. Mesrobian
Associate Professor of
Polymer Chemistry

RBM:MT
encls.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

28 May 1954

Professor Giulio Natta
Instituto Chimica Industriale
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

Enclosed with this letter please find three copies of an abstract of the paper entitled "Gamma Ray Polymerization Of Acrylamide And Related Monomers In The Solid State". We have just completed this study and if it is not too late, I should like to submit it to you for presentation at the Milano Session in addition to the earlier paper I have submitted on "Graft Polymers Derived From Peroxidized Polystyrene Derivatives".

Please accept my appreciation for your kind consideration of this request and with all best wishes, I am

Yours very sincerely,

Robert B. Mesrobian
Associate Professor of
Polymer Chemistry

RBM:MT
enclos.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 2, NEW YORK

DEPARTMENT OF CHEMISTRY

28 April 1954

Professor Giulio Natta
Istituto Chimica Industriale
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

Enclosed with this letter please find an application form for attendance at the International Symposium on Macromolecular Chemistry, Sept. 26-October 2, 1954. Also, I enclose an abstract of a talk I respectfully submit for presentation at the Milano session. Looking forward to seeing you and with all best wishes, I am

Yours very sincerely,

Robert B. Mesrobian

Robert B. Mesrobian
Associate Professor of
Polymer Chemistry.

RBM:MT
enclosures.

12 Gennaio 1955

Professor H.Mark, Director
POlymer Research Institute
Polytechnic Institute
99 Livingston Street
B R O O K L Y N, N.Y.

Caro Professor Mark,

Sono ritornato ieri a Milano dopo un periodo di vacanze trascorso a Davos in Svizzera con tutta la famiglia ed ho avuto la bella sorpresa di trovare al mio ritorno il bel ritratto fatto dalla Sua gentile Signora. Il Suo pensiero mi ha molto commosso e La prego di ringraziare e di fareialla Signora Mimi i miei più vivi rallegramenti perchè non conoscevo le Sue doti artistiche. Mi spiace solo che il pacco abbia impiegato quasi un mese a venire da New York a Milano e di non aver potuto così ringraziarLa prima. Terrò il Suo ritratto nel mio studio dove ho già una collezione di ritratti di chimici illustri. Il Suo supera certamente come dimensioni tutti gli altri, e fu di più è molto artistico.

Sto ora rimaneggiando e completando i due lavori sui polimeri cristallini delle alfa-olefine, polipropilene, poli-α-butileni, poli-α-amileni, polistiroli, ecc. che Le invierò in settimana. Spero che giungano in tempo affinchè almeno uno di essi venga pubblicat sul Suo volume. Nel caso che non arrivassero in tempo, La pregherei di pubblicarli sul Polymer Science.

Noi stiamo attraversando un periddo di grande lavoro nel nostro Istituto perchè abbiamo preparato un gran numero di polimeri nuovi. Pensavo di comunicare qualcosa sull'argomento nel colloquio di Zurigo, ma ricevo ora la notizia che tale colloquio è limitato alle"Rheological Properties of diluit Polymer Solutions". POichè abbiamo osservato delle notevoli differenze nel comportamento delle soluzioni di polimeri "isotattici" e "non isotattici", forse potremo, per tale epoca, portare una breve comunicazione sull'argomento.

Molti cordiali saluti.

G.NATTA

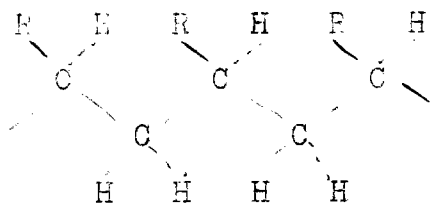
January 11, 1955

Professor H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Bro
99 Livingston Street
BROOKLYN , N.Y. , U.S.A.

Dear Professor Mark,

The preparation, in Europs, of crystallin polymers of alfa-olefines (as $-CH_2-CHR-CH_2-HHR-$, where R is an alchyl group), showin very interesting properties is going to begin on the commercial sca le. The terminology problems, therefore, are very important and I propose to submit them to the Macromolecular Commission of IUPAC fo judgment.

These polymers are formed of linear chains, as



where $-CH_2-$ groups are alternated with -CHR- groups containing asymm tric carbon atoms.

When the asymmetric carbon atoms show different random dist buted coffigurations, amorphous products, having low melting point, are obtained. On the contrary, when they show the same configuratic crystalline products with high melting point are obtained. The latt polymers will have, maybe, in the future remarkable, very interesti and practical applications, because of their interesting mechanical properties.

There is now the necessity to designate with a generaleterm suitable to all the analogous cases, the chains containing long ser of asymmetric carbon atoms showing the same configuration, and the lymers containing such chains.

During the meeting on December 11, 1954, at the Accademia N zionale dei Lincei in Rome, I and some of my coworkers presented tv papers concerning these new polymers and we proposed to designate as "isotactical carbon atoms"(from the Greek words: ἴσος = equal and τάττω= to set up), the asymmetric carbon atoms having the same cor guration. The corresponding chains should be designate as "isotacti chains", the polymers containing them as "isotactical polymers", ar the phenomen described here as "isotaxia".

Professor Giordani proposed, on the contrary, this differer

January 11, 1955

Professor Mark - Polytechnic Institute of Brooklyn

~~tion~~ reflects also the bent of R groups in the spiralized chains of some of those polymers in the crystalline state.

Other designations could be "isodiatetical" or isoversal". I shoul propose to submit this problem to the Macromolecular Commission of IUPAC and eventually in the same time to the Section of Applied Chemistry, Division of Plastics anf High Polymers.

If you agree to my proposal; I beg you to let me know, so that I may prepare a more detailed report on this argument.

With best personal regards, I am,

Very sincerely yours,

G.NATTA

May 31, 1955

Mr. Leo Mandelkern
Rubber Section
National Bureau of Standards
Washington 25, D.C., U.S.A.

Dear Mr.Mandelkern,

In reply to your letter of May 3, 1955 (File No.7.1), I should not give you the required news, as on the preparation of the completely trans 1-4 polybutadiene a patent application has benn filed by us, and in our first patent specification the melting point of the polymer has not yet been given. However, in view of th object for which you require from us the datum, I am glad to communicate it confidentially to you.

If should have to publish it, I beg you to indicate that the datum on the trans 1-4 polybutadiene has been communicated to you by the inventor. Trans 1-4 polybutadiene undergoes a I order tr sition at about 45°C, giving another cristalline phase probably cha racterised by much lower density and free rotation of the chains in the new lattice. This second form melts (from X-Ray indicative determinations) at about 90-100°C. We are now studying thorougly the structure of the polymer from X-Ray and electron diffraction measurements, and I shall be glad to communicate to you the definitive results, assoon as we shall have them.

With best regards,

Sincerely yours,

(prof.G.Natta)

ARBON
HEMICAL
DIVISION OF BORG-WARNER CORPORATION
1926 WEST TENTH AVENUE • GARY, INDIANA • TELEPHONE GARY 6-9146
CHICAGO ESSEX 5-1882

Americ

April 26, 1955

Dr. G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci, 32
Milano
Italy

Dear Dr. Natta:

Thank you very much for your kind letter of April 19.

I shall look forward to our meeting when I get to Milan on May 16. As you suggested, I have also written to Ing. Orsoni at Montecatini and hope to meet him also.

Best regards.

Sincerely yours,

Howard H. Irvin

Howard H. Irvin

HHI:lk

Marbon®

Reply to New York Office

26 JEFFERSON STREET
PASSAIC, NEW JERSEY
PRESCOTT 7-8500

November 18, 1955

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 35
MILANO, Italy

Dear Professor Natta:

I would like to take this opportunity to thank you very much for your most kind treatment given me during my visit at the POLYMER Plant in Terni. It was certainly very nice of you to show me samples of the Polypropylene fiber and powder.

Also, I wish to express my deep appreciation for your kind invitation which you extended to me to visit your Institute on my next trip to Milano.

During the rest of my trip through Europe I heard a lot of very complimentary comments about your work on Polypropylene and Polystyrene.

Again, with many thanks, I remain,

Sincerely yours,

THE PANTASOTE COMPANY

Harry A. Russell

Harry A. Russell
Technical Director

HAR:pl

668

Am

PITTSBURGH
PLATE GLASS COMPANY

SPRINGDALE RESEARCH CENTER

PAINT DIVISION, SPRINGDALE, PA.

H. L. GERHART
DIRECTOR OF RESEARCH

ADDRESS REPLY TO
125 COLFAX STREET

November 7, 1955

Dr. G. Natta
Department of Industrial Chemistry
Polytechnic Institute of Milan,
ITALY

Dear Dr. Nata:

I am informed by our mutual acquaintance, Dr. Charles Overberger at Brooklyn Polytechnic Institute, that you plan to visit in the U.S.A. next year. We would be delighted and would consider it an honor if you could find the time also to visit in the Pittsburgh area. This is a center of much industrial research activity and if you have not previously visited here, I sincerely believe it worth your time to do so.

If it is at all possible for you to tell me that you will have the time to come I would like to make preparations to extend an invitation to you to meet with chemists in this area and, perhaps, favor us with a paper on one of your current research subjects.

This letter is by way of exploring the possibilities of your visit. Following receipt of information from you, I shall proceed to arrange the details to suit your purposes.

Very truly yours,

H. L. Gerhart

H. L. Gerhart
Director of Research

HLG:ah

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, 26.8.1955
TELEF. 292.125 - 292.126

Prof. MARK H.
Director Polymer Research Institute
Polytechnic Institute of Brooklyn
99, Livingston Street - Brooklyn - N.Y.

Dear Prof. Mark

I thank you very much for your kind letter, and the copy of the "Report on the Meeting of the Macromolecular Commission in Zurich, July 1955" you have sent to me. I would like to thank you also for the kind comments you made about our work on the crystalline polymers of alpha substituted olefins which we call "isotactic".

I agree that it may be premature at present to adopt the nomenclature which I have suggested as a better one may be found.

The remark you make: "it is not exactly established what kind of regularity is responsible for the peculiar behaviour of these materials" is not really justified according to us. Our data on the structure of polystyrene recently published (Makromolekulare Chemie, XVI, 77-80 (1955), of which I send you a copy, fully confirm our previous hypotesis on the structure of the chains of the "isotactic" polymers.

With kinds regards, yours sincerely

G.NATTA

July 20, 1955

Mr. Leo Mandelkern
Rubber Section
U. S. Department of Commerce
National Bureau of Standards
Washington 25, D.C., U.S.A.

Dear Mr. Mandelkern,

Replying to you letter of June 22 (File No. 7,1) I thank you for the interest you showed in our work. However, I have to correct some data that I communicated to you, because they corresponded to low molecular weight products.

The X-ray density of the low temperature form of poly-1-4-butadiene is 0,99. The melting point of a higher molecular weight 1-4-polybutadiene that that one used in previous determinations (P.M. $\simeq$ 100.000) is 129°C, the phase transformation lies in the neighbourhodd of 50°C.

I wish to inform you that we were able to synthetize high molecular weight crystalline 1-2-polybutadiene. The melting point of this fiber-forming product is 155°C. We were also able t work out the complete structure of the product. I am going to communicate something about that, at the Symposium of Macromolecular Chemistry in Zurich on July 28.

With kindest regards.

Very sincerely yours,

Giulio Natta

April 19, 1955

Professor Robert B.Mesrobian
Associate Director of the
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1, New York

Dear Professor Mesrobian,

I received your letter of 12th April in which you wrote to me about the Mr.Irvin's visit.

I am sending you the copy of my answer to Mr. Irving.

With kindest regards,I am,

Very sincerely yours,

G.Natta

Enclosure.

January 31, 1955

Professor Robert B.Mesrobian
Department of Chemistry - Polytechnic Institut of Brooklyn
99 Livingston Street
B R O O K L Y N 2, New York, U

Dear Professor Mesrobian,

I received your letter of January 24, with your manuscript. The other manuscript are already in the press, but we will do our best for having your manuscript published.

I thank you very much for your appreciations for the organization of the International Symposium of Macromolecular Chemistry,

With best regards, I am,

Very truly yours,

G.Natta

Milano June 5, 1954

Robert B.Mesrobian
Associate Professor of Polymer Chemistr
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2, New York

Dear Professor Mesrobian,

I received your letter of May 28, with the three copies of the abstract of your second paper entitled: "Gamma Ray Polymerization of Acrylamide and Related Monomers in the Solid State" which you will submit for the presentation at Milano Session. I am glad to receive also this paper, and with best wishes, I am,

Very truly yours,

(Prof.G.Natta)

Milano May 4, 1954

Professor Robert B.Mesrobian
Department of Chemistry
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 2, New York

Dear Professor Mesrobian,

I herewith aknowledge receipt of your letter of April 28, with a preliminary application form and an abstract of the talk you would like to present at the Milano Session of the International Symposium on Macromolecular Chemistry.

With best regards, I remain,

Very truly yours,

(Prof.G.Natta)

March 7, 1955

Mack Printing Company
20th and Northampton Streets
Easton, PA.

Dear Sir,

We have checked with Libreria Ulrico Hoepli - Milano as you have suggested in the letter of March 2, 1955 EWT:if.

As early as October 28, 1954 Hoepli has provided for the payment of $ 7.93.

The check n° 041366/006062 on the Chemical Banck and Trust Company N.Y. was send to "Mack Publishing Company - 20th and Northampton Streets - Easton PA."

Perhaps substituting the word "printing" with "publishing" in the adress had caused some trouble, but we hope that you can ship our reprints as soon as possible.

Sincerely yours

(Prof.G.Natta)

April 19, 1955

Mr Howard H.Irvin - Chief Chemis
Marbon Chemical Division
Borg-Warner Corporation
1926 West Tenth Avenue
G A R Y , Indiana, U.S.A.

Dear Mr.Irvin,

I received a letter from Prof.Mesrobian, with which he inform me that you would like to visit our Institute on May 16, and I shall be glad to meet you.

In regard to the commercial uses of crystalline polystyrene, I inform you that our works in this field are made with the Montecatini Company. Therefore, you could address yourself directly to the Montecatini Company: Ing.B.Orsoni, Settore Progetti e Studi, Società Montecatini Via Filippo Turati 18, Milano.

Sincerely yours,

(G.Natta)

521

November 14, 1955

Dr. H. L. Gerhart, Director of Research
Pittsburgh Plate Glass Company
Paint Division
125 Colfax Street
S P R I N G D A L E, Pa., U.S.A.

Dear Dr. Gerhart,

Many thanks for your kind letter of November 7, and for your kind invitation to visit you in Pittsburgh. I have not yet decide a detailed schedule for my visits in the U.S.A., and, as I accepted already several invitations for lectures and visits, I cannot assure you I shall have time enough to come also to Pittsburgh. I shall do, however, my best and I shall write to you again on this subject.

With many thanks and best regards, I am,

Very truly yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

November 1, 1955

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

My dear Professor Natta,

Many thanks for your very kind letter of October 26th, 1955.

We shall be very glad to publish your paper in the J.Pol.Sci., and in order that the readers in this country and England can properly understand it, I would suggest that we translate it into English.

Please kindly send the manuscript in Italian, we shall carry out the translation at our expense. This only takes about one week or so.

With kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

459

October 26, 1955

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1, New York, U.S.

Dear Professor Mark,

As I already touched on with you, we should like to send to "The Journal of Polymer Science" for publication, some particularised works about the synthesis of each isotactical polymer of linear olefins (propylenes, polybutylenes, polyamylenes), and of cristallin polymers of different ramified olefins, etc.

As the experimental part of these papers is very largely developed, their translation into French or English language should be a serious time engagement for us, while we are loooking after very important research works.

If "the Journal of Polymer Science" could publish Italian written papers, with a detailed English summary, it would be a great easement for us. It would allow us to publish some paper on a review more wide spread than the Italian ones, among the specialists in the macromolecular chemistry field.

Awaiting your kind reply on this matter, I am sending you my kindest personal regards.

Very sincerely yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

August 6, 1955

Professor Giulio Natta
Direttore Dell 'Istituto di
Chimica Industriale
Del R. Politecnico di Milani
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

May I take this opportunity to express my many thanks to you for your very valuable participation at the Meetings of the Commission on Macromolecules and also for the time which you sacrificed for these Meetings.

Please accept my kindest personal regards and best wishes.

As always, I am,

Sincerely yours,

H. Mark

H. Mark

HM:CR

487

America

M. M. ROSTEN
50 EAST 78 ST.
NEW YORK, 21, N.Y.

September 26, 1955

Prof. G. Natta
Via Mario Pagane 54
Milano, Italy

Dear Prof. Natta:

Sometime ago I wrote you regarding a new method of producing elemental phosphorous. Whereas, current commercial practice, as you know, employs large quantities of electric energy, this new technique avoids the use of power except for incidental process auxiliaries and produces phosphorous through the use of calorific fuels like gas and oil. The main purpose of my previous letter was to determine if there existed a potential application for this development among some of your associates in Italy. You indicated such a possibility but suggested the preliminary data would have to be reviewed by personnel who are more closely tied to the inorganic field. It would therefore be greatly appreciated if you were to see that the attached memo pertaining to this new manufacture were referred to the proper parties.

I am about to leave for a brief business trip to France, and you could contact me at the Hotel Bristol in Paris from October 2nd till about the 18th.

My plans call for a brief visit to Italy to see my daughter Ann who is now working as an architect in Milan, and we might arrange to see each other during this visit. Please write to me care of the Hotel Bristol in Paris if you will be available.

With sincere regards to you and Mrs. Natta from both Mrs. Rosten and myself,

Cordially yours,

M. M. Rosten

M. M. Rosten

MMR:hd

P.S. MY TRAVEL AGENT HAS JUST ADVISED ME THAT I SHALL BE ACCOMODATED IN PARIS AT THE HOTEL ROYAL MONCEAU - 35 AVENUE HOCHE - PARIS 8

(233)

America

M. M. ROSTEN
50 EAST 78 ST.
NEW YORK, 21, N.Y.

Cop

August 3, 1955

Professor Giulio Natta
Via Mario Pagane 54
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter of July 11th.

The information you are asking me in connection with the method of production of elemental phosphorous, I will send it to you next month, when my friend returns from vacation.

It is possible that I will be in France in the second half of September, and I will contact you in order to arrange a meeting and discuss the matter of mutual interest.

With kind personal regards to you and Mrs. Natta, I remain,

Sincerely yours,

M. M. ROSTEN

MMR:ha

M. M. ROSTEN
50 EAST 78 ST.
NEW YORK, 21, N.Y.

July 1, 1955

Professor G. Natta
Via Mario Pagano 54
Milano, Italy

Answered 7/8

Dear Professor Natta:

I am pleased to write you this short letter wishing you and Mrs. Natta a very pleasant summer, and my only regret is that my plans did not permit our being together for even a shor holiday. Being with you and Mrs. Natta always provides me and Mrs. Rosten with profound pleasure.

On the subject of getting together, if you would like to have me explore the question of obtaining in your favor, a visitor's visas to the U.S., I believe that through friends in Washington, I may be able to help the situation. If you wish me to pursue this, please let me know and I will initiate some contact work immediately.

I have a subject to bring to your attention which may interest you, or some of your friends in Italian industry. A capable engineer and inventor, with whom I have acquainted, has developed an entirely new process for the production of elemental phosphorous from phosphate rock. The process is not electrolytic and thus can be used in many places where electric power is in short supply. The raw materials are similar to thoses used in the convention process - phosphate rock, silica and carbon (coal or coke). The expected cost of producing phosphorous by this new process is about $70.- per ton less than existing U.S. processes, some of which, as you know, are located in areas where power is cheap.

It occurred to me that you may be in a position to bring me in contact with the best placed personnel, who might have an interest in this kind of development. I would like your advice on this subject, and if not too much trouble, replies to these several questions:

1. What is the situation in Italy with respect to the availability and marketing of phosphorous, current and future, and,

2. What are the elements associated with the availability of phosphate rock deposits.

If, on receiving your reply, there seems to be a basis for delivering to you more information, I will be more than glad to arrange this.

With best personal regards to you and Mrs. Natta,

Best regards also from my wife.

Sincerely yours,

M. M. ROSTEN

MMR:ha

Il Governo avrà dunque bisogno di
le sue attività ~~[illegible]~~ [illegible] spiccate
di un potere dotto delle imprese
pesanti ~~[illegible]~~ che abbiano fatto
ovunque di molti anni in zona.
Attività all grand industrie chimiche
organiche e non regno quelle inorganiche.
L'Italia non possiede ancora
fosfati e importa il fosforite
dal Nord Africa francese.
Le fondazioni del fosforo è
limitato ad ~~[illegible]~~ un impianto
a Spalato sufficiente per l'Italia
[illegible].
Gli acidi fosforici e derivati
sono preparati da acid fosforico
ottenuto per via umida.
Il momento da lei ora è
[illegible] processo sono troppo
vaghi e impressioni fatte in
forma [illegible] ~~[illegible]~~ e
~~[illegible]~~ di [illegible]
~~[illegible]~~ (ad es. per [illegible]).

Ho tutto [illegible] pure
regards also from my wife
to you and dear Rosa

BREA CHEMICALS, INC.
SUBSIDIARY OF UNION OIL COMPANY OF CALIFORNIA
RESEARCH CENTER
BREA, CALIFORNIA

G. S. SCHAFFEL
MANAGER OF RESEARCH

April 19, 1955

BCRD-216

Dr. G. Natta
Istituto di Chimica
Industriale del Politecnico
Milano, Italy

Dear Dr. Natta:

Thank you for your recent letter explaining the necessity for discussing your work with representatives of Montecatini. I am attaching a copy of a letter which I have sent to Dr. Orsoni requesting the opportunity for such a discussion.

I hope that you will keep us informed about the results of your investigations. We are conducting research in the field of propylene polymers and would be willing to exchange information in this field.

I shall look forward to meeting you and discussing this very interesting subject.

Very truly yours,

G. S. Schaffel

Dr. G. S. Schaffel
Manager of Research

GSS:je

BREA CHEMICALS, INC.
SUBSIDIARY OF UNION OIL COMPANY OF CALIFORNIA
RESEARCH CENTER
BREA, CALIFORNIA

G. S. SCHAFFEL
MANAGER OF RESEARCH

April 18, 1955

Dr. Bartolomeo Orsoni
Montecatini
Societa Italiana per L'Industria
Chimica E Mineraria
Milano, Italy

Dear Dr. Orsoni

I was extremely disappointed to receive your cable stating that a discussion on your polypropylene development is presently premature. I would like to further clarify our situation in this regard, in order to convince you that further discussion should take place.

We have been conducting research on propylene and propylene polymers for some time, since our company has access to large quantities of this raw material. Therefore, when we first heard of Professor Natta's discovery in this field, we felt that a discussion at a scientific level would be desirable. When I called Professor Natta, he told me that it would be necessary to have the approval of Montecatini. I fully realize that this process has not been developed to a stage where amnufacture and licensing can be considered. However, I do feel that it would be desirable for us to conduct discussions concerning the methods and techniques involved. This would serve to expedite our own research and help us to provide new information which could be shared with your research organization. Obviously, if this information led to a process from which we could obtain profit, we would be happy to share those profits with you also.

For this reason I earnestly request that you give further consideration to the desirability of discussing this matter with us further. As I mentioned to you in my cable, I am prepared to come to Milano for such a discussion. I sincerely feel that such a conversation would be of great benefit to both Montecatini and to our own organization. Even though this appears to you now to be premature, I feel that from a research standpoint it is both necessary and desirable.

I have heard many fine things about you from your many friends in the United States. I hope to be able to meet you personally soon, and have the pleasure of an interesting discussion.

I hope that this proposal will meet with your approval and that you will see fit to invite me to meet with you and your associates at the earliest possible time.

Sincerely yours

G. S. Schaffel

Dr. G. S. Schaffel
Manager of Research

GSS:je

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

August 5, 1955

Professor Giulio Natta
Direttore dell 'Instituto
di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

May I take the liberty of sending you today a copy of the Report on the Meeting of the Macromolecular Commission, IUPAC, which was held in Zurich in July, 1955, together with a copy of the Composition of the Commission on Macromolecules, IUPAC.

Please accept my kindest personal regards and best wishes.

As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:CR
ENCL.

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

May 25, 1955

Prof. G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of May 18th, 1955, with the beautiful picture of the isotactical polystyrene and the copy of your letter to Professor Kratky.

Meanwhile I have placed your proposal on the program of the Commission on Macromolecules and have sent a copy of your letter to all members. Of course I have also invited you and hope very much that you will be personally present at the first union of our Commission for which you have already received an invitation. I have also invited Dr. Gordon M. Kline of the Division on Plastics and High Polymers and he will either be present himself or send a representative.

I would be very much obliged if you could bring with you 20-30 reprints of your article in the J. Pol. Sci., because I am sure that members of the Commission will be anxious to get such a reprint. Since your article appeared there is a tremendous interest in your new polymers, much greater that the interest in the low pressure polyethylene which does not offer such important fundamental new aspects. Let me congratulate you on this outstanding discovery.

Mimi and I are not yet sure of our exact traveling plans but, we can discuss this in Zurich. We would be delighted to visit you in Campoluc* and thank you very much for the kind invitation.

I am looking forward with much pleasure to seeing you, and until then, I am, with kindest personal regards and best wishes, as always,

Very sincerely yours,

H. Mark

H. Mark

x after the Zurich Conference

HM:ff

(4)

4. 6. 1955

Prof. H.Mark Herman , Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 2 - New York

Caro Prof. Mark,

La ringrazio molto della Sua lettera del 25 maggio e del gentili espressioni che Lei ha avuto per i nostri lavori.

Dopo la pubblicazione dell'articolo sul "Jurnal of Polym Science" e la... réclame da Lei fatta, ho ricevuto visite da tut le grandi Società Chimiche Americane e da molte altre minori.

La Scc.Montecatini alla quale ho conferito tutti i dirit sui miei brevetti, ha avuto numerosissime richieste di licenze, ma credo che prenderà in considerazione la concessione di licenz soltanto verso la fine dell'anno quando avrà potuto stabilire at verso un anno di produzione dell'impianto pilota, l'effettivo va lore e le possibilità di applicazione dei nuovi prodotti.

Sarò molto lieto di vedere la Signora Mimi e Lei a Zurig e di averli in agosto, dopo il Congresso, con noi a Champoluc.

I migliori saluti

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

Americ.

November 17, 1955

Professor Giulio Natta
Isituto die Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Thank you very much for your letter of October 17.

I am as yet uncertain as to whether I will be able to go to the symposium in Israel. I am very glad that you are receiving so many invitations to speak in this country.

I am going to call your lecture simply "Isotactic Polymers" and the lecture of Dr. Ing. Giustiniani "Production and Properties of the New Crystalline Isotactic Polymers". If you prefer other titles, please let me know.

I hope it will be possible to bring Professor Pina with you as I indicated earlier, or someone who could translate for you as you speak. If this is not possible, Professor Mark will translate as you go along at the Gordon Conferences.

With kindest regards,

Sincerely,

C. G. Overberger

C. G. Overberger
Head, Dept. of Chemistry
Chairman, Gordon Research
Conference on Polymers

CGO:DL

October 12, 1955

Professor C. G. Overberger
Head of Department of Chemistry
Polytechnic Institute of Brookl
99 Livingston Street
B R O O K L Y N 1, New York, U

Dear Professor Overberger,

I am following up my letter of October 5, in reply to your kind letter of September 27.

I informed Dr. Ing. Piero Giustiniani, general Manager of Montecatini Co., about your wish that someone from Montecatini speaks on the same program with me, during the Polymer Week of the Gordon Research Conferences.

Ing. Giustiniani begs me to thank you for your kind invitation and to inform you that he hopes to be able to partecipate to the Conference and to speak on technical aspects of the production and uses of the new cristallin polymers of alpha olefins and of styrene.

I thank you very much for your kind proposal to bring someone with me to aid me in the language situation. If possibl I would like to propose one of my staff, f.i. Professor Pino.

With kindest personal regards,

Sincerely yours,

Giulio Natta

374

October 5, 1955

Professor C. G. Overberger
Head, Department of Chemistry
Polytechnic Institute of Brooklyn
Brooklyn 1, New York, U.S.A.

Dear Professor Overberger,

Thank you very much for your kind letter of September 27, and for your formal invitation to speak at the Polymer Week at the Gordon Research Conferences. I consider a great honour to be invited and I shall be very pleased to come to the U.S.A. and to partecipate at these Conferences.

As in few months our first patents will be issued, I shall be able to speak in more detail about the polymers we call isotactic and about the methods for making them. I think that my conference may concerne the mechanism of the reactions and their kinetics, the properties and the structure of crystalline polymers.

According to your proposal, I think that someone from Montecatini can speak about technical properties and uses of the commercial products. However, because some people from Montecatini are abroad, I shall be able to ask them about your proposal only next week. I shall inform you about their proposal as soonas possible.

Under separate cover, I am sending you some reprints of mine.

With kindest personal regards and many thanks, I am

Sincerely yours,

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

September 27, 1955

Professor G. Natta
Isituto Chimica Inc. Politecnio
Piazza Leonardo de Vinci 32
Milan, ITALY

Dear Professor Natta:

I would like to extend to you a formal invitation to speak at the Polymer Week of the Gordon Research Conferences from July 1 to July 5, 1956.

I presume you will be willing to discuss your process for making crystalline polypropene and polystyrene since your patents will undoubtedly be issued by that time.

I would be grateful for your consideration and I hope you can accept. Your talk should be of about one and one-quarter hours' duration. I would appreciate your comments as to whether you can discuss your work in more detail by next summer. I would also like to invite someone from Monacatini to speak on the same program with you. Whom would you suggest?

This will be the 25th anniversary of the conferences and we are making a special effort on this program. We are planning to have several other talks on polyethylene, one by Ziegler and by several companies here in the United States who will release some information.

We will be glad to contribute to your traveling expenses although our funds are limited. I feel confident, however, that several companies would be glad to pay for your trip. The Gordon Research Conferences will pay you an honorarium of $200 for your talk and some portion of your traveling expenses. You might also want to bring someone with you who could aid you in the language situation.

I would appreciate a formal acceptance of this invitation before December 1st.

With kindest personal regards,

Sincerely,

C. G. Overberger

CGO:DL

C. G. Overberger
Head, Dept. of Chemistry
Chairman, Gordon Research
Conference on Polymers

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

October 17, 1955

Dr. Giulio Natta
Istituto Chimica Ind. Politecnio
Piazza Leonardo de Vinci 32
Milan, ITALY

Dear Professor Natta:

Thank you very much for your letter of October 12th. I am very happy that Dr. Ing. Piero Giustiniani, General Manager of the Montecatini Company will be able to speak with you.

I hope it will be possible to bring Professor Fino with you. I am not certain as to whether we can pay him an honorarium. However we may be able to pay something toward his traveling expenses from the New York area to New Hampshire and return.

You will be hearing from several companies in the United States who are interested in having you lecture before their research groups and will pay you honorariums.

With kindest personal regards,

Sincerely,

C G Overberger

CGO:DL

C. G. Overberger
Head, Dept. of Chemistry
Chairman, Gordon Research
Conference on Polymers

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

May 25, 1955

Professor G. Natta
Istituto Chimica Ind. Politecnio
Piazza Leonardo de Vinci 32
Milan, ITALY

Dear Professor Natta:

As you may know, I am planning to attend the International Congress of Pure & Applied Chemistry at Zurich from July 20 to 28, 1955.

I am somewhat anxious to visit the Polytechnic Institute of Milano and I am wondering if whether near the end of July - either July 31st, August 1st or 2nd would be an agreeable date for a visit to the Milan area.

Would it be possible for me to visit the Montecatini group also?

I plan to carry enough slides with me to enable me to give lectures on "Recent Advances in Polymer Chemistry", "Molecular Termination in Ionic Polymerization" and "Synthesis and Oxidation of Cyclic Hydrazines". If you would like me to give a lecture, would you indicate which one of the above would be the most suitable for your group?

With kindest regards,

Sincerely,

C G Overberger

CGO:DL

C. G. Overberger
Head, Department of Chemistry

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

August 25, 1955

(272)

Professor G. Natta
Isituto Chimica Inc. Politecnio
Piazza Leonardo de Vinci 32
Milan, ITALY

Dear Professor Natta:

I want to thank you personally for the nice visit I had with you during the early part of August during holiday time. In particular I enjoyed the chemical talks which we had and the lunch.

I hope it will be possible for you to visit the States one of these days.

With kindest personal regards,

Sincerely,

C. G. Overberger
Head, Dept. of Chemistry

CGO:DL

498

Ans.

November 10, 1955

Professor C. G. Overberger, Head
Department of Chemistry
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1, New York

Dear Professor Overberger,

Many thanks for your kind letter of October 17. I have delayed replying because only yesterday I had a colloquy at the American Consulate. So, I have been informed that my visa was not granted before for a misunderstanding, and now there is no more difficulty.

I thank you for what you say about Dr. Eng. Giustiniani and I should be grateful if you let me know if he has to give a separate lecture and how long.

I think that the subject of the Giustiniani's lecture could be more suitable about the production and uses of the new cristallin polymers of alpha-olefins and of styrene, or about the integral utilization of olefins obtained by cracking of petroleum by means of the new procedure of polymerisation.

I would inform you that I received an invitation also by the Gordon Research Conference on Elastomers, which will be held during the week of July 30 to August 3. I believe, therefore, I will stay in the United States from the end of June to August 5-10, and I will dedicate the period from July 6 to 29 to the visits and lectures. Till now I received invitations to give lectures by DuPont, Dow, Hercules Powder and Cornell University and invitation to visit several others American Companies.

I thank you very much for your kind interest. I hope to see you in Italy at the end of March or in April, if you will go to Rehovot to participate to the International Symposium on Macromolecules. In the affirmative, I should beg you to let me know if you may give one or more lectures at the Polytechnic. I wish also to introduce you to Montecatini people, who will be very glad to make your acquaintance.

With kindest personal regards, and many thanks,

Very sincerely yours,

G. Natta

BREA CHEMICALS, INC.
SUBSIDIARY OF UNION OIL COMPANY OF CALIFORNIA
RESEARCH CENTER
BREA, CALIFORNIA (P.O. Box 218)

G. S. SCHAFFEL
MANAGER OF RESEARCH

April 11, 1955

BCRD-196

America

AIRMAIL

Dr. G. Natta
Istituto di Chimica
Industriale del Politecnico
Milano, Italy

Dear Dr. Natta:

I regret that we encountered so much difficulty in our telephone conversation and that I disturbed you at such a late hour.

We are extremely interested in the work which you have done on crystalline polypropylene and polystyrene. If you are free to discuss this work, I would like to come to Milano as soon as possible to determine how we can cooperate in the commercial use of your discovery.

I hope that the proper arrangements can be made and that I can meet you personally in the near future.

Very truly yours,

G. S. Schaffel

Dr. G. S. Schaffel
Manager of Research

GSS:br

390

October 11, 1955 Inserto

Mr.M.M.Rosten
c/o Hotel Royal Monceau
35 Avenue Hoche
P A R I S 8 -France

Dear Mr.Rosten,

Thank you for you kind letter of September 26. The preliminary data you sent to me were not enough to speak about the new method of producing elemental phosphorous with the more important Italian Companies. They negotiate indeed only processes for what patentes are already conceded or filed at least.

Moreover, in your report there is no process description allowing a technical judgement. I would like also to know if plants employing such process are already working and where. In default od such information I think it will be very difficult to be able to propose the process to important Companies, and you would be obliged to deal with small Companies, that give less guarantee of performing capacities and financial means.

I shall be glad to see you when you come to Milano. With best regards to Mrs.Rosten and you also from Mrs.Natta,

Sincerely yours,

G.Natta

[redacted]55

90

Answered

Mr. M.M.Marks
50 East 78 Street
[redacted]

Dear Mr.Marks,

I received with great pleasure your letter of July 1.

I am sorry I cannot give you some exact information about what you asked me for, because it is long time since I worked only for the pilot industry of organic chemistry, and therefore, I don't follow exactly the new industrie.

Italy does not have phosphate rock deposits and imports from Russia North Africa the phosphorite. Our production of phosphorus is limited to a plant in Spoleto, and that enough for our present requirements. The phosphate acids and their derivatives are made from acids obtained by wet process.

The information you give us about the wet process are so interesting and impressive that I cannot mention it to some Italian f.i., the Montecatini company.

With best personal regards also from my wife to Mrs.Marks and you,I am,

Sincerely yours,

Giulio Natta

P.S. I thank you very much for your kind proffer of interest for obtaining a visitor's visa to the U.S. I shall inform you at once if I need of it.

July 4, 1955

61

Professor C. G. Overberger
Head of Department of Chemistry
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1, NEW YORK, U.S.A.

Dear Professor Overberger,

Please excuse me for the long delay in answering your letter of May 23.

As I told to Professor Innorgat, I am very sorry but it is no possible to let you give some lectures at our Institute or at Montecatini because near the end of July almost all the managers and technicians of the Montecatini will keep their holidays, and also in our Institute there will be only few chemists.

As I too shall attend to the International Congress at Zurich, I hope to see you there. I shall stay at the Hotel Plaza.

After the Congress, if you like to visit our Institute I shall be very glad to meet you again in Milan.

Looking forward to seeing you in Zurich, I send you my best regards.

Very sincerely yours,

Giulio Natta

ITALCABLE

efisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

M224 IBT5 LOSANGELESCALIF 40 11 1557

R G NATTA ISTITUTO DI CHIMICA

DUSTRIALE DEL POLITECNICO

DA VINCI 32 MILANO =

PER LA RISPOSTA TELEFONATE AL N. 88.38

TELEGRAMMA Italcable via Italo Radio

166

[ANS] Spazio riservato agli estremi di ricevimento

REGRET TELEPHONE CONVERSATION NOT CLEAR ARE YOU FREE TO DISCUSS NEWYORK ON PROPYLENE POLYMERS IF I COME TO MILANO PLEASE REPLY IMMEDIATE COLLECT

= DR G S SCHAFFEL BREA CHEMICALS INC +

POLITECNICO MILANO

TUTO DI CHIMICA INDUSTRIALE

Milano, ...

Piazza Leonardo da Vinci - Telef. 292-125 - 292-126

Dr G S SCHAFFEL
Brea Chemicals Inc
~~St Juan~~ California
Los Angeles

For discussion on commercial applications of polypropylenes please write to Montecatini Company Milan

NATTA

ore 15
il 12 Aprile 1955
Telegramma lettera

Or/el.

23.IV.1955

BREA CHEMICALS
BREA CALIFORNIA

DR. SCHAFFEL REYOUR LETTER APRIL 18 CONFIRM NEITHER PROFESSOR NATTA OR MONTECATINI ARE PRESENTLY PREPARED AND WILLING ANY DISCUSSION WITH BREA ON POLYPROPYLENE STOP THEREFORE WE DONT ADVICE VISIT WHICH WOULD BE USELESS STOP LETTER FOLLOWS.

ORSONI.

Ing. Orsoni, SEPS, 3258.

Copia per Sig. Ing. Natta.

April 26th, 1955

Dr. G.S. Schaffel
Brea Chemicals Inc.
Brea (California)

Dear Dr. Schaffel,

I wish to refer to your letter dated April 18th, with which you are trying to convince me on the opportunity of discussing now with the Brea Co. about certain techniques for the iso-tactical polymerization of α-olefines.

In fact, until the patent situation will be completely settled (and this is presently under way) we do not intend to start discussions on that matter.

Only on Autumn next, when the questions concerning the patent situation will be definitively settled, we shall take into consideration, without any engagement for us, the possibility of having discussions with other Companies on this subject.

I believe that, being you now aware of the situation which you will fully understand, you will not insist further on your request.

With my best personal regards,

Yours sincerely,

f.to: Orson

Or/ir

SCIENCE SERVICE

THE INSTITUTION FOR THE POPULARIZATION OF SCIENCE organized 1921 as a non-profit corporation, with trustees nominated by the National Academy of Sciences, the National Research Council, the American Association for the Advancement of Science, the E. W. Scripps Estate and the Journalistic Profession. WATSON DAVIS, DIRECTOR.

1719 N Street, N. W. WASHINGTON 6, D. C.

Telephone NOrth 7-2255 Cable Address Scienserv

August 10, 1955

250

Dr. Gulio Natta
Milan Polytechnic School
Milan, Italy

Dear Dr. Natta:

A sheet from one of our reports on science that has been issued to newspapers and magazines is enclosed because of your connection with one of the items that it contains. It is sent you for your information and files.

Science Service issues regular syndicate services which carry to over 400 subscribing newspapers and other publications in this country and abroad, authentic accounts of current scientific progress in all fields.

I thank you for your cooperation with Science Service. If you will continue to keep us in touch with your own work and that of your associates, we shall value this aid to our work of science popularization.

Sincerely,

Watson Davis

Watson Davis,
Director

WD/Ro

CHANCE OF NEW FIBERS
FROM ISOTAXIC CHEMICALS

8/8/55

By SCIENCE SERVICE

MILAN, Italy, Aug. -- A new source of possible fibers for textiles and rubber-like products is being developed by Dr. Gulio Natta of the Milan Polytechnic School here.

The source is a class of chemical polymers not heretofore singled out for fiber production. Isotaxic polymers is Dr. Natta's name for the class, which includes polypropylene and poly-alpha-butylene. The special mark of isotaxic compounds is presence at intervals along the chain-like molecule of atomic groups which give characteristic optical and crystalline properties to the compound. The carbon atom to which these groups are attached is known to chemists as an "asymmetric" carbon atom.

Two types of polymers formed from isotaxic compounds were described by Dr. Natta at the recent Fourth World Petroleum Congress at Rome. One, which is crystalline in structure, gives promise of forming fibers suitable for use in textile manufacture. The other, non-crystalline, type would be more in the nature of a rubber-like

Inf. Natta.

707

America

November 15th, 1955.

Mr. W.F. Waldeck
Wyandotte Chemicals Corporation
Wyandotte, Michigan.

Dear Mr. Waldeck,

I thank you for your letter dated November 10 and I am glad to inform you that I shall be pleased to see you here in Milan on December 1, except in the case of engagements which I cannot foresee at present.

In the past I was pretty well acquainted with the works carried out by Wyandotte in the field of the propylene oxide polymers. For what concerns the new polymers found out by Professor Natta I think that any discussion of the process at this time would be premature, since many phases are still in the development stage and hence subject to modification. Moreover, in view of the nature of development work, still in progress, there are also many patent matters still to be resolved.

I trust that within some month the situation will have evolved so that, without any engagement on our part, we will be able to consider the expediency of starting discussions with you on this matter.

With my personal regards,

Yours sincerely,

Or/AG/sl.

3 Dicembre 1953

Egr. Dr. Mario F. Sartori
136 Thomas Drive
Monroe Park
Wilmington 6, Delaware

Egregio Dottore ,

La prego di scusarmi se rispondo appena ora alla Sua gentile lettera dell'11 Ottobre, con la quale Lei mi rinnova la cortese offerta di inviarmi della camicie di Dacron dagli Stati Uniti.

Ho tardato a risponderLe perchè speravo di poterle trovare in Italia e volevo evitarle tanto disturbo. Poichè qui non sono ancora in commercio , Le sarei molto grato se Lei potesse farmene inviare due del numero 16.

Appena Lei mi comunicherà di aver fatto la spedizione verserò immediatamente l'importo della spesa a Suo fratello Tullio Sartori di cui La prego di comunicarmi l'indirizzo preciso.

Le sono molto grato per il Suo ricordo e per la Sua cortesia.

Molti cordiali saluti.

(Prof. G. Natta)

April 15, 1955

Dr. G.S.SCHAFFELL - Manager Resear
Brea Chemicals, Inc. - Research Ce
P.O.Box 218
B R E A - California

Dear Dr. Schaffell,

I received your letter of April 11, from which I saw that the address of my telegram of 12th and of my letter of 13th April was not right. In my letter I wrote to you that I am sorry but I am not free to discuss with you on the commercial uses of propylene polymers in U.S.A., because our work in this field is made with the Montecatini Company. Therefore, you could address yourself directly to the Montecatini Company: Ing.B.Orsoni, Settore Progetti e Studi, Società Montecatini, Via F.Turati 18, Milano.

Sincerely yours,

(Prof.G.Natta)

April 13, 1955

Dr. G.S.Schaffell
Brea Chemicals Inc.
St.Juan, Los Angeles, Califor

Dear Dr.Schaffell,

Following up my telegram of 12.4.1955, I inform you that our works in the field of the propylene polymers are made with the Montecatini Company, so that I am sorry not to be free to discuss with you on the applications of these polymers in U.S.A, that probably are interesting for you. In this regards you could address yourself directly to the Montecatini Company, (Ing.B.Orsoni, Settore Progetti e Studi, Soc.Montecatini, Via F.TUrati 18, Milano).

Very truly yours,

(Prof.G.Natta)

STEVENS INSTITUTE OF TECHNOLOGY
FIFTH AND HUDSON STREETS
HOBOKEN, NEW JERSEY
PLEASE ADDRESS REPLY TO: Dept. of Chemistry

America

May 2, 1955

Professor Giulio Natta
Instituto Chimica Ind. Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Of course we are very much interested in your papers on the exciting new isomeric polymers prepared by anionic polymerization. Will you please send us reprints of your publications in this interesting field? My colleague, Salvatore S. Stivala, knows Italian and can translate for us. I trust that we may be able to discuss theories in this field sometime. There is a chance that I may visit Europe next year, in which case perhaps you would be interested in hearing about recent U.S. developments in Vinyl-Type Polymers.

Enclosed is a list of chapters of a new book "Polymer Processes" which we hope to publish late this year. Professor Mark led me to undertake this. S. S. Stivala has written a chapter on Epoxy Resins in which he is an expert.

Would it be possible for you to give me a communication for the book about the types of catalysts which can be used to prepare your new crystalline polystyrene, polypropylene and polybutene? If not, I will give your references with the section on Anionic Polymerization. Patent numbers would also be appreciated if any have been issued.

My friend Dr. J. M. Lambert (now at Mellon Institute, Pittsburgh) sends best wishes.

Sincerely,

C. E. Schildknecht

C. E. Schildknecht

CES/cp
enc.

Chapters of Polymer Processes,
High Polymer Series of Interscience, Vol X

1.	Introduction to Free-Radical Polymerizations	J. H. Baxendale, University of Manchester, Manchester, England
2.	Polymerizations in Bulk	C. E. Schildknecht, Stevens Institute of Technology, Hoboken N. J.
3.	Polymerizations in Suspension	E. Trommsdorff, Rohm and Haas Darmstadt, West Germany, & C. E. Schildknecht
4.	Polymerizations in Emulsion	H. L. Williams, Polymer Corporation, Sarnia, Canada
5.	Polymerizations in Solution	C. E. Schildknecht
6.	Ionic Polymerizations	C. E. Schildknecht
7.	Polyamides and Polyesters	D. G. Bannerman & E. E. Magat, du Pont Co., Wilmington, Dela.
8.	Condensations with Formaldehyde	T. J. Suen, American Cyanamid Co., Stamford, Conn.
9.	Cellulose and Cellulose Derivatives	B. G. Rånby, University of Uppsala, and S. A. Rydholm, Billeruds AB, Saffle, Sweden
10.	Epoxy Resins	S. S. Stivala, Stevens Institute of Technology, Hoboken, N. J.
11.	Polysulfide Polymers	E. M. Fettes and J. S. Jorczak, Thiokol Chemical Corp., Trenton N. J.
12.	New Adhesives	W. J. Powers, Picatinny Arsenal, Dover, N. J.
13.	Stabilization of Polymers	C. E. Schildknecht
14.	Paste Techniques	W. D. Todd, B. F. Goodrich Chemical Co., Avon Lake, Ohio
15.	Latex Techniques	G. J. Antlfinger & N. H. Sherwood, B. F. Goodrich Chemical Co., Avon Lake, Ohio
16.	Compounding and Processing	G. S. Garvin, B. F. Goodrich Chemical Co., Avon Lake, Ohio
17.	Polymer Reinforcement	H. L. Gerhart & E. W. Moffett, Pittsburgh Plate Glass Co., Springdale, Pa.
18.	Spinning and Drawing Fibers	J. L. Riley, Celanese Corp., Summit, N. J.

C. E. Schildknecht (Editor) January, 1955

STANFORD RESEARCH INSTITUTE
STANFORD, CALIFORNIA

America

27 Maggio 1955

Ch.mo Professore
Dr.Ing.Giulio Natta
Via M.Pagano 54,
Milano, Italy

Illustre Professore,

In considerazione dei numerosi vantaggi connessi al piu' ampio interscambio di idee ed esperienze fra i ricercatori industriali dei vari Paesi,lo Stanford Research Institute ha affidato al Dr.Oliver Senn,Direttore dei laboratori di chimica organica dell'Istituto,l'incarico di compiere un viaggio in Europa al fine di allacciare rapporti diretti con i ricercatori Europei ed al tempo stesso di rendersi conto degli sviluppi piu' recenti delle applicazioni industriali della chimica organica.

Ben conoscendo l'alto valore degli studi da Lei compiuti nel campo delle materie plastiche, lo Stanford Research Institute Le sarebbe veramente grato se Ella volesse incontrarsi con il Dr.Senn nel corso del suo soggiorno milanese nel periodo dall' 8al 10 e 14-15 giugno p.v. A tal fine il Dr.Senn avra' cura di porsi in contatto con Lei non appena giunto a Milano.

Ringraziandola per l'attenzione che Ella vorra' prestare al Dr.Senn, colgo l'occasione per porgerLe i piu' distinti ossequi,

Lorenzo Franceschini

Dr.Lorenzo L.Franceschini
International Fellow
Stanford Research Institute

AMERICAN SOCIETY
OF
EUROPEAN CHEMISTS AND PHARMACISTS
ASSOCIATION OF SCIENTISTS GRADUATED FROM EUROPEAN UNIVERSITIES
NEW YORK CITY

PLEASE REPLY TO:
Kurt G. Stern
Polytechnic Institute
Brooklyn 1, New York

March 28, 1955

Dear Prof. Natta,

As you probably know, Professor Herman F. Mark will celebrate his sixtieth birthday on May 3, 1955. Our Society is planning to honor him on that occasion with a scientific meeting and reception in his honor, details of which will be sent to you in the near future.

I am writing now to ask if you would like to send a congratulatory letter to Professor Mark in which you may wish to express your personal feelings about him, both as a person and as a scientist. Kindly do not mail your letter directly to Professor Mark but send it to me at the above address. The reason for this request is that we would like to collect these letters and have them bound in a special volume for presentation to Professor Mark at our Mark Jubilee Meeting. We believe that this is a gift he will treasure more highly than any other honor which may be bestowed upon him on that occasion.

Thanking you in advance for your cooperation in this matter, I am, with best personal wishes

Very sincerely yours,

Kurt G. Stern

Kurt G. Stern
Acting Executive Vice-President
A. S. E. C.

KGS:d

WHITEHALL 3-1600

(152)

SIMPSON COAL & CHEMICAL CORPORATION

120 WALL STREET
NEW YORK 5, N.Y.

Invice

July 14, 1955

Dr. G. Natta
Milan Polytechnic School
Milan, Italy

Dear Dr. Natta:

In the course of my friendship with the late Dr. Molinari, with whom I had been very close and whose memory I esteem very highly, your name had frequently been mentioned in his conversations. Dr. Molinari apparently had been a very close friend of yours and spoke very highly of your accomplishments in the chemical field.

It was, therefore, with great interest that I read, in the July 11 issue of CHEMICAL AND ENGINEERING NEWS, that you had read a paper at the Rome Congress on the subject of the high molecular solid polymers from various olefins.

In view of my connection with a very substantial firm, I have been wondering whether there is any possibility of commercially exploiting some of the ideas represented in your talk. I would be extremely grateful for your comments along these lines.

I am enclosing a photocopy of the article mentioned above. Please accept my congratulations for the originality and clarity of your exposition, and I look forward to hearing from you at your earliest convenience.

With kindest personal regards, I remain,

Very truly yours,

SIMPSON COAL & CHEMICAL CORPORATION

Sidney Horne

Sidney Horne
Chief Engineer

SH:ncj
Enc.

MARIO F. SARTORI
602 NORTHSIDE DRIVE, NORTH HILLS
WILMINGTON 3, DELAWARE

Wilmington, Aprile 17, 1955

Egregio Professore,

desidero informarla che la sua nota su "Crystalline High Polymers of alfa-olefins" ha destato vivo interesse presso la Du Pont e specialmente nel laboratorio ove io lavoro. Penso che il Dr. Rigby vorra' discutere con lei tra l'altro anche questo suo importante contributo scientifico.

Rallegramenti vivissimi e cordiali saluti

Mario Sartori

MARIO F. SARTORI
602 NORTHSIDE DRIVE, NORTH HILLS
WILMINGTON 3, DELAWARE

Wilmington, April 9,1955

Prof. Dott. Giulio Natta
Istituto Chimica Industriale
Milano

Egregio Professore,

Le sono molto grato per la sua gentile lettera del marzo scorso e la ringrazio anticipatamente per il colloquio che avra' con il Dott. Rigby.

Il Rigby, al quale ho riferito quanto da lei scrittomi, e' rimasto molto contento nell'apprendere che potra' incontrarla in Milano e cerchera' di prendere diretti contatti con lei appena arrivera' a Londra.

Io mi auguro che da tale colloquio possano svilupparsi interessanti scientifici contatti tra il suo Istituto e la DuPont.

La prego di considerarmi a sua disposizione nel caso ritenga che io possa fare qualcosa per lei dall'America.

Molti cordiali saluti

Mario Sartori

MARIO F. SARTORI
602 Northside Drive
North Hills
WILMINGTON 6, DELAWARE

Wilmington, Marzo 13,1955

Prof. Giulio Natta
Istituto Chimica Industriale
del Politecnico di Milano
Milano

Egregio Professore,

La Societa' Du Pont intende seriamente sviluppare contatti tecnici con istituti scientifici italiani ed all'uopo sara' in Italia nel prossimo aprile il Dr. G.W. Rigby, del "Foreign Relation Service" del "Development Department". Questo Dipartimento e' uno dei piu' importanti della Societa' Du Pont e non ha nulla a che fare con il Dipartimento commerciale e vendite.

Il dr. Rigby mi ha espresso il desiderio di incontrarsi con lei per uno scambio di idee circa tale nuova attivita' della Du Pont ed io mi sono offerto di fare da intermediario. Il suddetto dottore sara' a Milano il 21 e 22 aprile prossimo. Le saro' molto grato se lei potesse riceverlo in una di tali giornate e se potesse farmi sapere le ore per lei piu' convenienti per tale incontro.

Mi scusi vivamente per il disturbo che le arreco. Io credo che tali contatti siano molto utili anche per la scienza italiana.

Purtroppo, a causa di imprevisti impegni di lavoro ho dovuto posporre la mia venuta in Italia. In tal modo non mi sara' possibile rivederla in occasione del Congresso Mondiale del Petrolio, come avevo progettato. Mi auguro pero' di rivederla in settembre.

Frattanto riceva i miei piu' cordiali saluti

Mario F Sartori

Mario F. Sartori
136 Thomas Drive, Monroe Park
Wilmington 6, Delaware

Wilmington, Oct. 11, 1953

Egregio Professor Natta,

Rallegramenti per la sua nomina a Delegato nel Consiglio dell'Unione Internazionale di Chimica Pura ed Applicata.

Ricordo che durante una breve conversazione avuta con lei nell'University Building di Uppsala, io le espressi che sarei stato lieto di spedirle qualche camicia di Dacron, appena in possesso delle dimensioni da lei desiderate. Se lei rietiene ancora utile di aggiungere nel suo guardaroba camicie di Dacron non esiti a comunicarmi le dimensioni del collo e delle maniche ed io saro' lieto di procedere all'acquisto ed alla spedizione.

L'ammontare della spesa per tale acquisto (11 dollari per una camicia e due dollari circa per la spedizione via aerea) potra' essere da lei rimesso, dopo ricevuto il pacco, in lire italiane a mio fratello Tullio Sartori in Bergamo, con un deposito in una banca di Bergamo.

In attesa di ricevere sue notizie al riguardo cordialmente la saluto

Mario Sartori

THE LIBRARY OF CONGRESS

WASHINGTON 25, D. C.

amusice

PROCESSING DEPARTMENT
EXCHANGE AND GIFT DIVISION

Refer to: International Conference
February 16, 1955

Professor Giulio Natta
Istituto Chimica Ind. Politecnico,
Piazzale
Leonardo da Vinci 32, Milana
Italy

Dear Sir:

The Library of Congress has seen the announcement of the ~~forthcoming~~ Symposium, Milan, Italy: Building reactions of macromolecules, transformation reactions, and preparation and properties of bloc and graft polymers. October 6, 1954.

We are interested in obtaining the complete documentation of this meeting as soon as issued in whatever forms it may appear, i.e. abstracts, reports, working papers, proces verbaux, etc.

To this end we shall appreciate it very much if you will arrange to send us such materials as a gift or on an exchange basis. In the event that you do not distribute these materials, we should like to be advised of the name and address of the person or agency to whom we should apply for them. In addition we would appreciate the receipt of the following information concerning this meeting:

1. What documents will be published?
2. When will they be published?
3. What will be the cost of these documents if not available as gifts or on an exchange basis?

Please address correspondence and publications as follows:

International Section
Exchange and Gift Division
Library of Congress
Washington 25, D. C.

Sincerely yours,

Constance E. Lee

Alton H. Keller, Chief
Exchange and Gift Division

THE LIBRARY OF CONGRESS

WASHINGTON 25, D. C.

PROCESSING DEPARTMENT
EXCHANGE AND GIFT DIVISION

9 - America

June 10, 1955

Dear Professor Natta:

The Library of Congress has seen the announcement of the INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY, Symposium on Macromolecular Chemistry, Commission of Macrolecular Chemistry of International Union of Pure and Applied Chemistry, Turin and Milan, Italy, Sept. 27-Oct. 3, 1954.

We are interested in obtaining complete documentation in two copies, if possible, of this meeting, including preliminary information, as soon as issued in whatever form it may appear, i.e., information circulars, agenda, lists of titles and authors to be presented, abstracts, reports, working papers, proces verbaux, etc.

To this end, we shall appreciate it very much if you will arrange to send us such materials as a gift or on an exchange basis. In the event that you do not distribute these materials, we should like to be advised of the name and address of the person or agency to whom we should apply for them. In addition we would appreciate the receipt of the following information concerning this meeting:

1. What documents will be published?
2. When and by whom will they be published?
3. What will be the cost of these documents if not available as gifts or on an exchange basis?

Please address correspondence and printed matter as follows:

Exchange and Gift Division (I.O.)
Library of Congress
Washington 25, D.C.

Sincerely yours,

Alton H. Keller

Alton H. Keller
Chief
Exchange and Gift Division

Professor Giulio Natta
Instituto Chimica Ind.
Politecnico,
Piazzale Leonardo da Vinci32
Milano, Italy

+18

America

WICKHEN PRODUCTS, INC.

224 NORTH BROADWAY - MILWAUKEE 2, WISCONSIN

Please reply to - 2344 North Oakland Avenue
Milwaukee 11, Wisconsin

November 14, 1955

Drs. G. Natta and P. Pino
Polytechnic Institute of Milano
Milano, Italy

Dear Drs. Natta and Pino:

A study of the scientific literature on the OXO PROCESS shows that you have been the most consistent contributors to the mechanism and the physical and chemical conditions of this basic reaction in organic chemistry. Therefore I am taking the liberty of writing you concerning some oxo reactions which we are considering.

In brief, we would like to have your opinion whether the oxo process could be successfully applied to unsaturated fatty acids such as oleic acid or any other unsaturated fatty compounds.

Have your experiments shown, or do you know of any references in regard to this particular phase of the oxo reaction. If so, I would very much appreciate to learn of it.

Please excuse the fact that I am writing in English since I do not know Italian. However, I do have some Italian friends here in Milwaukee who would be happy to translate your letter for me and therefore do not hesitate to write in Italian.

Hoping to hear from you, I am

Most truly yours,

WICKHEN PRODUCTS, INC.

H. Heinrich

H. Heinrich, Ph. D.
Vice President

HH:asu

670
America

WYANDOTTE CHEMICALS CORPORATION

WYANDOTTE, MICHIGAN

WILLIAM F. WALDECK
DIRECTOR
RESEARCH AND DEVELOPMENT DIVISION

November 10, 1955

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Milano, ITALY

Dear Professor Natta:

I am leaving shortly on a trip to Europe. As part of that trip I am looking forward very much to coming to Milan to visit you, if at all possible, on December 1.

I am primarily interested in discussing with you recent advances in your very interesting development of polypropylene polymers. I hope you will be in Milan on that day and that you will be able to give me some time.

I also hope to visit Dr. Orsoni of Montecatini the same day.

Since I am already making travel arrangements, I would greatly appreciate it if you could write me by return mail if you will be able to see me on that date. If not, I will try to rearrange my travel schedule after I reach Europe in order to accommodate your schedule.

Very truly yours,

W. F. Waldeck

W. F. Waldeck

ah

Please give
[illegible]

Wyandotte

May 12, 1955

Professor C.E.Schildknecht
Department of Chemistry
Stevens Institute of Technology
Fifth and Hudson Streets
HOBOKEN, New Jersey

Dear Professor Schildknecht,

I received your letter of May 2, and I am sending you, ur separate cover some copies of my works on new isotactical Polymers; I shall send you the others as soon as they are published.

I know well the very interesting works you published on vinylether cristalline polymers. We too prepared different polymers of vinylalkylethers of which we examined their structures at XRays.

As soon as our patents are issued, I shall inform you als about patent numbers, so that you may cite them in the new book "Polymer Processes".

I am sorry but in regard to the mechanism of the cristal line polymers synthesis and related catalysts, I cannot tell you anything because certain patent matters have yet to be settled.

It is a long time since you showed that it is possible to obtain cristalline polymers from alfa-olefinic compounds having long chains and I think that the possibilities to obtain cristalli polymers are very large, not limited only to a particular type of catalysis.

I thank Dr.Lambert for his wishes that I reciprocate wit my best wishes.

Best regards,

Sincerely yours,

G.Natta

4 Luglio 1955

Dr. Lorenzo L. Franceschini
International Fellow
Stanford Research Institute
STANFORD-CALIFORNIA

Egregio Dottor Franceschini,

Ho ricevuto già da diverso tempo la Sua gentile lettera del 27 Maggio , nella quale mi annunciava la visita del Dottor Oliver Senn, Direttore del Laboratorio di Chimica Organica del Vostro Istituto. Ho tardato a risponderle perché ho aspettato la visita annunciata , ma, dato che sinora il Dottor Senn non si é messo in contatto con me , penso che il suo programma abbia subito cambiamenti .

Penso che non mancherà altra occasione di incontrare il Dottor Senn. La prego gradire i miei più distinti saluti.

(Prof. Giulio Natta)

July 22, 1955 139

Dr. Sidney Horne
Simpson Coal Chemical Corporati
120 WallaStreet
N E W Y O R K 5, N.Y., U.S.A

Dear Doctor Horne,

Professor Natta had to leave Milan for a travel abroad as soon as he received your letter, and charge me with replying to your kind letter of July 14. He thanks you very much for the photocopy of the article appeared on Chemical and Engineering News you kindly sent to him.

In regard to the information you asked him for, I infor you that Prof. Natta has not the possibility of commercially explo ting some of ideas represented in his talk because they are cove red by patents. The rights of these patents on alpha-olefins are owned by the Montecatini Company, while the ones on the diacids synthesis are owned by the Lonza, Basel, Switzerland.

With best regards,

Very truly yours,

Dr. Rossana Lamma
(secretary)

21 marzo 1955

Egr. Dr. Sartori Mario
602 Northside Drive
North Hills
Willmington 6, Delaware

Egregio Dr. Sartori ,

Ho ricevuto la Sua lettera del 13 u.s. relativa alla visita a Milano del Dr. Rigby del Foreign Relation Service della Società Du Pont.

La informo che sarò lieto di conoscere il dr. Rigby e spero di essere a Milano in quei giorni. Se fossi avvisato all'arrivo in Europa del dr. Rigby potrei confermargli l'appuntamento. Nel caso che dovessi assentarmi per qualche impegno improrogabile incaricherò qualcuno del mio Istituto di ricevere il Dr. Rigby.

Mi dispiace che Lei non possa venire in Italia per il Congresso Mondiale del Petrolio e spero di rivederLa in settembre se, come spero, avrà occasione di venire.

I migliori saluti a Lei ed alla gentile Signora

G.Natta

P.S. Ricevo ora una lettera del dr.Rigby del 14 marzo, con l'indirizzo esatto al quale risponderò direttamente.

Milano, 27 Febbraio 1954

Egr. Dr. Mario F. Sartori
136 Thomas Drive, Monroe Park
Wilmington 6, Deleware

Egregio Dott. Sartori,

La prego di scusarmi se non Le ho ancora scritto per ringraziarLa delle camicie da Lei gentilmente inviatemi.

Lei è stato molto gentile ed il mio ritardo è imperdonabile. A mia parziale discolpa Le dirò che sono stato in Gennaio lungo tempo via da Milano ed al mio ritorno sono rimasto sommerso tra un mucchio di aarte e di lavori arretrati, poi ho avuto una leggera influenza ed appena oggi ho ripreso il lavoro.

Ho già inviato l'equivalente in dollari al Suo fratello Tullio Sartori a Bergamo.

La prego di porgere alla Sua Signora i miei migliori saluti. Molto cordialmente

THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS

BEACON LABORATORIES
C. E. CUMMINGS, SUPERINTENDENT
R. K. FIETSAM, ASST SUPERINTENDENT
R. L. SAWYER, DIRECTOR OF RESEARCH
B. HEGEMAN, DIRECTOR OF TECHNICAL SERVICES

P. O. BOX 509
BEACON, N. Y.

August 16, 1955

AIR MAIL

Professor Giulio Natta
Polytechnico di Milano
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

The large number of publications which have appeared in your name during the past few months make me very anxious to visit you again to discuss the interesting work which you have done since we last met early in 1952. I am now planning a trip to Europe which will include a few days in Italy early in November. On this trip I shall be accompanied by Dr. J. J. Mitchell of our Physical Research Department. If it suits your convenience we should like to visit your Institute on Wednesday, November 2 but could make the visit on November 3 if this would suit you better. Please let us know your preference.

I realize that you may not be free to discuss all of your work and you should not hesitate to make clear whatever restrictions we should observe in our talks. Furthermore, we do not wish to trouble you personally if our visit happens to fall on a busy day. It will be quite all right if you place us in the hands of some associate for inspection of the laboratories.

With best personal regards, I remain,

Yours very truly,

H. V. Atwell

H. V. ATWELL

HVA-JV

THE TEXAS COMPANY
TEXACO PETROLEUM PRODUCTS

BEACON LABORATORIES
C. E. CUMMINGS, SUPERINTENDENT
R. K. FIETSAM, ASST. SUPERINTENDENT
R. L. SAWYER, DIRECTOR OF RESEARCH
B. HEGEMAN, DIRECTOR OF TECHNICAL SERVICES

P. O. BOX 509
BEACON, N. Y.

September 7, 1955

Professor Giulio Natta
Polytechnico di Milano
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

I am very sorry to learn from your letter of August 30 that you will not be in Milan at the time of our visit. Unfortunately there seems to be no possibility of postponing our visit to your Institute since we have made definite arrangements to return home on November 5. I hope you will not mind then if we make the visit on November 2. We shall greatly appreciate the assistance of Professor Pino in telling us about your work.

With best personal regards, I remain

Very truly yours,

H. V. Atwell

H. V. ATWELL

HVA-JV

(197

30 /3/1955

Mr. H. V. Atwell.
The Texas Company
Texaco Petroleum Products
P. O. Box 509-Beacon
N. Y. (U. S. A.)

Dear Professor Atwell

I received your kind letter of 16 inst. communi= cating your visit with Dr. J. J. Mitchell to my Institute, on November the 2 or 3st. during your journey in Italy.

Unfortunately, I shall not be in Milan from ~~the~~ Ostober the 28 to November the 6, however I shall be very glad to ~~put you~~ and Dr. J. J. Mitchell , if you can put off your visit after November the 6.

If you cannot defer the date of your journey, I shall charge one of my assistent coworkers(e.g. Prof. Pino) to attend you during the visit of my institute.

Very truly yours

Prof. G. Natta

March 8, 1955

International Section
Exchange and Gift Division
Library of Congress
WASHINGTON 25, D.C.

With reference to your letter of February 16, I inform you that alla the conferences presented at the International Symposium on Macromolecular Chemistry, with the discussions will be published in a special issue of "La Ricerca Scientifica" that will be distributed by the Interscience Publishers, Inc., 250 Fifth Avenue, New York.

Sincerely yours,

(Prof.G.Natta)

18 - Coop. Macromol. conferences

June 13, 1955

To the Exchange and Gift Division
Library of Congress
WASHINGTON 25, D.C., U.S.A

Following up my letter of March 8, in reply of your of February 16, I confirm you that all the conferences presented at the International Symposium on Macromolecular Chemistry, held in Milan and Turin on September and October 1954, together with the discussions, will be published in a special issue of "La Ricerca Scientifica" that will be distributed, for the countries out of Italy, by the Interscience Publishers, Inc., 250 Fifth Avenue, New York.

Sincerely yours,

Giulio Natta

586
Ann.

28 Novembre 1955

Mr. H. Heinrich, Ph.D., Vice Preside
WICKHEN Products, Inc.
2344 North Oakland Avenue
MILWAUKEE 11, Wisconsin

Egregio Dottor Heinrich,

Ricevo la Sua lettera del 14 Novembre, e La informo che i nostri studi sull'ossosintesi hanno portato ad applicazioni industriali di notevole importanza in Italia e che la Società Montecatini, che dispone dei nostri brevetti, ha costruito un impianto industriale a Ferrara (Italia).

I risultati dei nostri studi hanno permesso di condurre la sintesi a bassa pressione e sono sicuramente applicabili agli acidi non saturi, quali l'oleico, ed ai loro esteri. Uno dei miei collaboratori, il Dr. Ercoli, ha particolarmente studiato la sintesi diretta di acidi da composti non saturi, CO ed H_2O. La pregherei di informarmi quali prodotti a Voi interessano maggiormente, se i formilacidi, gli ossiacidi primari oppure i diacidi.

I migliori saluti.

G. Natta

516

November 14, 1955

Dr. W.F. Waldeck, Director
Research and Development Divisi
Wyandotte Chemicals Corporation
W Y A N D O T T E - Michigan

Dear Dr. Waldeck,

I received your letter of November 10, and I inform you that I hope to be in Milan on December 1 and 2 and perhaps on December 5. I shall be certainly away from December 6 to 11.

With best regards,

Very truly yours,

G. Natta

USA

1956

AIR REDUCTION COMPANY
INCORPORATED
LINCOLN BUILDING · 60 EAST 42ND STREET
NEW YORK 17, N.Y.

AIR MAIL

February 6, 1956

Professor G. Natta
Istituto di Chemica Industriale del Politecnico
Piassa Leonardo Da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Thank you for your letter of January 28 and I regret that it may not be possible for Dr. Redmon to have the pleasure of meeting you when he visits Milan.

The research program which Dr. Redmon directs includes catalytic reactions with acetylene using cobalt complex catalysts and our company sponsors similar research work at the U. S. Bureau of Mines laboratory. The research program of Air Reduction also includes work on vinyl acetate polymers and polyvinyl alcohol since the Colton Chemical Company of Cleveland, Ohio is owned by the Air Reduction Company. The principal object of the research program is to develop new and expanding uses for acetylene. For example, you probably know of our sales development work with the tertiary acetylenic alcohols and glycols.

We would not wish in any way to inquire into the work sponsored by our good friends, Montecatini or Lonza. Dr. Redmon wished only to take advantage of his visit to Milan to meet a scientist whose work in many fields of research is well known in the chemical world. I think it will be best for him to call your office when he arrives in Milan February 13 and find out if your very busy schedule allows time for a brief visit. If that should not be possible or if Dr. Redmon's schedule does not allow for a suitable date, we will hope to see you at some later time, possibly over here, should you make a trip to America.

With best personal regards,

Very truly yours,

G. B. Carpenter

G. B. CARPENTER
Manager Development Staff
Research and Engineering

GBC:hes
cc: Boat Mail

ANNOTAZIONI

da A a L

America

1956

H20
USA

October 22, 1956

To the American Chemical Society
Renewal Member Department
1155 Sixteenth Str., N.W.
WASHINGTON 6, D.C., U.S.A.

Dear Sirs,

As Librarian of the Institute of Industrial Chemistry of the Polytechnic Institute of Milan, I received from Professor Natta the renewal subscription bill for 1957 (here enclosed) and I inform you that we intend to receive since the new year the publications listed as follows:

Chemical Abstracts

Journal of the America Chemical Society

Analytical Chemistry

Industrial and Engineering Chemistry

Chemical Engineering News

at the following address:

Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32 - MILANO (Italy)

Therefore, I ask you to let me know which we have to do in order to receive these ~~reviews~~ Journals, if it is better that the Library of the Institute becomes a member of the A.C.S., and if there is a special subscription bill for University Institutes.

I am waiting for your kind reply and for the subscription bill.

Very truly yours,

f.i. the Director

Dr. Ing. E. Lombardi (Librarian)

Encl.

MEMBER:
AMER. INST. CHEM. ENG.
FELLOW AMER. INS. CHEM.

MEMBER:
SOC. RHEOLOGY
HIGHWAY RESEARCH BOARD

EDWIN J. BARTH
CHEMICAL AND PETROLEUM ENGINEER
CONSULTANT
54 WEST STREET
NORTHAMPTON, MASS.
TELEPHONE JU 4-8581

Sept. 22, 1956

Prof. G. Natta,
Instituto di Chimica Industriale,
Politecnico di Milano,
Milano, Italy.

My dear Dr. Natta -- Your excellent work on the Chimie des Olefines is greatly appreciated here. Would you be so kind , if possible to send me an English translation of your article, as given before the Fourth Word Petroleum Congress, in Rome last May?

My great appreciation is in thanking you very kindly for this.

Sincerely yours,

E. J. Barth.

Nr 1

299

8 Ottobre 1956

Mr. Edwin J. BARTH
Chemical and Petroleum Engineer
Consultant

54 West Street

NORTHAMPTON, Mass.

Dear Mr. Barth,

With reference of your letter Sept. 22, I inform you that I am sorry, but I do not have any English translation of the article you asked for.

Yours sincerely,

(Prof. G. Natta)

83GN

July 25, 1956

Dr. B. S. BIGGS, , Chairman
Gordon Research Conference
on Elastomers
Colby Junior College
NEW LONDON, New Hampshire, U.S.A.

Dear Mr. BIGGS,

I am very sorry not to be able to attend the Gordon Conference on Elastomers, but I have been obliged to come back to Milan, owing to several important developments of the work in my Institute.

I gave the manuscript of my lecture to Mr. Ottolenghi of the Chemore Corporation, who will read it at the Conference.

I do hope to have soon the pleasure to make your acquaintance in Italy or in U.S.A., and in the meantime, I send you my best wishes.

Very sincerely yours,

Giulio Natta

823 A

July 24, 1956

Ann

Prof. Rudolf Brill
Roma - Hotel Moderno

Dear Professor Brill,

I received your kind letter of July 20 and I wish to inform you that I shall be pleased to meet you in Milan on July 31. At that time, however, the most of my coworkers will have their holidays and therefore my Institute will be practically closed. Nevertheless, I shall be glad to show it to you.

Hoping to be able to see you in Milan, or in Varenna, I send you my best regards.

Giulio Natta

Prof. Rudolf B r i l l
Hotel Moderno, R o m a

1191A
Am

Rom, den 20. Juli 1956.

Herrn
Prof. Dr. G. N a t t a
Istituto di Chimica Industriale
del Politecnico
M i l a n o .

Sehr geehrter Herr Kollege Natta,

Mit grossem Vergnügen erinnere ich mich an den netten Abend an dem ich Sie mit Ihrer sehr verehrten Gattin in New York getroffen habe. Sie hatten damals die grosse Liebenswürdigkeit mich einzuladen, Sie in Mailand in Ihrem Institut zu besuchen, wenn sich eine Gelegenheit dazu ergäbe. Ich werde nun voraussichtlich am 31. ds. Mts. in Mailand sein. Es würde mich sehr freuen, wenn Ihnen mein Besuch an diesem Tage zusagen würde. Ich werde mir erlauben, mich mit Ihnen vorher rechtzeitig in Verbindung zu setzen, da ich schon am 30. Juli in Mailand eintreffen werde.

Mit freundlichen Grüssen

Ihr sehr ergebener

(R. Brill)

471A
Am

copie
De Mauch
Cassini
22/3/56

BELL TELEPHONE LABORATORIES
INCORPORATED
463 WEST STREET, NEW YORK 14, N.Y.
CHELSEA 3-1000

March 14, 1956

THORNTON C. FRY
ASSISTANT TO PRESIDENT

PROF. DR. G. NATTA
Politecnico di Milano
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

At the suggestion of Dr. G. Palandri of the Pirelli Company, I wish to ask your advice in a matter of some importance which I am attempting to arrange.

Two members of our staff, Dr. Brockway McMillan, Assistant Director of Systems Engineering, and Mr. J. H. Felker, Director of Special Systems Engineering, will shortly be visiting several countries of Europe, in the hope of finding some engineering graduates with sound training and outstanding ability, who would be interested in employment in Bell Telephone Laboratories.

We know that the Politecnico di Milano stands very high among the technical universities in Europe, and we are very desirous for our representatives to call there. Unfortunately, I am not acquainted with the members of your faculty, and I was therefore pleased to receive Dr.Palandri's suggestion that you might be willing to assist us.

Our most acute need is in the area which we call systems engineering. This is where we carry out the basic studies of economic and technical feasibility upon which our decision to undertake a project is based, and where we formulate the requirements that must be met by the system to be developed. Such work requires good analytic skill combined with a broad knowledge and interest in both the technical and economic aspects of engineering. Since our field is Electrical Communication, training in electrical or mechanical engineering is especially appropriate. However, we are more interested in the man's native ability and the soundness of his scientific understanding than in the specific technical area in which he received his training.

We realize that men of the caliber we are seeking are also badly needed at home. We do not want to cause hardship to Italian industries by proselyting their personnel, or by any other improper conduct on our part. However, some very good men have been coming to America, and we believe others will continue to come. We fear that, if we make no effort to contact those who are suited to our needs, we will merely handicap ourselves without any benefit to our friends in Italy.

What I would hope to arrange, therefore, is that some appropriate member of your faculty would meet with our representatives to discuss our needs in greater detail, and then arrange for them to meet a few of your more advanced students who possess the requisite characteristics. I should be very happy if you could undertake to assist us in this way. If, however, you do not feel sufficiently well acquainted with the students in our area of interest, or if for any other reason it is impossible for you to undertake this, I would greatly appreciate your bringing this letter to the attention of an appropriate member of the faculty in whose judgment we could place confidence. We shall expect to reimburse any out-of-pocket expenses which may be incurred, together with a modest honorarium.

According to our present plans, it would be convenient for Messrs. McMillan and Felker to arrive in Milan about April 17th and remain at least the two following days. It would be helpful to know if there is any reason why these days would not be appropriate.

I shall greatly appreciate any advice or assistance which you can appropriately give me in arranging this matter.

Very sincerely yours,

Thornton Page

565 A

Ann.

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL LABORATORY
MURRAY HILL, NEW JERSEY
CRESTVIEW 3-6000

March 26, 1956

DR. GIULIO NATTA
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Dr. Natta:

The management of the Gordon Research Conferences requests that speakers complete reservation forms just as do other applicants for attendance at the Conferences. This is, of course, for purposes of record and to see that proper accomodations are reserved for you. I am enclosing herewith a reservation blank and would appreciate it if you would return this to Dr. Parks at your earliest convenience. His request was that the forms be in his hands by April 1, but they were delayed in reaching me so that this is obviously impossible.

If you have any questions about this or any other matter pertaining to the Conference, please do not hesitate to get in touch with me or Dr. Parks.

Very truly yours,

B. S. Biggs/ms

BSB:MS

B. S. BIGGS

Dr. W. J. Burke, Head
Department of Chemistry
University of Utah
Salt Lake City 12, Utah

SALT LAKE CITY
JUL 18
7 30 PM
1956
UTAH

AIR LETTER
AÉROGRAMME

AIR MAIL
10¢
U.S. POSTAGE

VIA AIR MAIL
PAR AVION

Dr. G. Natta
Politecnico
Milan, Italy

MESSAGE MUST APPEAR ON INNER SIDE ONLY
NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

Salt Lake City, Utah
July 17, 1956

1192 A

[redacted]
Milan, Italy

AIR LETTER
AÉROGRAMME

Dr. G. Natta
Istituto
Milano, Italy

Dear Professor Natta:

I would very much appreciate receiving a reprint of your article on the polimerization of alpha-olefins, which appeared in Chemica e industria, 38, 124-7 (1956).

Sincerely yours,

W. J. Burke, Head
Department of Chemistry
University of Utah

WJB:lw

A 198

24/7

ITALCABLE

Ufficio e Numero · Provenienza · Numero Parole · Data · Ore · Indicazioni eventuali

LUM361/DCP40 NEWYORK 35 17 556P

PER LA RISPOSTA TELEFONATE AL N. 88.38

Aur

T PROFESSOR GIULIO NATTA
OLITECHNICO DE MILANO
IAZZA LEONARDO DA VINCE 32
HIRTYTWO MILANO =

TELEGRAMMA via Italcable via ~~Italo~~ Radio

8 03

GRO

ITALCABLE 18-4-1956 MILANO

Spazio riservato agli estremi di ricevimento

272

NEW DATE FOR VISIT OF MCMILLAN AND FELKER IS TUESDAY MAY FIRST
PLEASE TELEGRAPH IF THIS IS NOT CONVENIENT =
FRY WESTOPHONE NEWYORK +

è festa!

Please postpone visit after May
second
Natta

copia per conoscenza a Prof. Natta

WESTPHONE NEW YORK FOR FRY

PROF. NATTA PLEASED RECEIVE VISIT YOUR REPRESENTATIVES BUT ANTICIPATES CONSIDERABLE DIFFICULTY FINDING SUITABLE ENGINEERS BECAUSE AVAILABILITY (OUTPUT) ALMOST ENTIRELY ABSORBED BY ITALIAN INDUSTRIES REGARDS.

PALANDRI

11.4.56

686A

sso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

171 IAT1940 NEWYORK 30 20 1605

19

PER LA RISPOSTA TELEFONATE AL N. 88.38

Am

PROFESSOR GIULIO NATTA
OLITECHNICO DI MILANO PIAZZA
ONARDO DA VINCI ~~THIRTYTWO~~ MLN =
32

TELEGRAMMA via Italcable via Italo Radio

ITALCABLE 21-4.1956 MILANO

Spazio riservato agli estremi di ricevimento

Bell Telephone Co.

MCMILLAN WILL TELEPHONE FROM ZURICH WITHIN A FEW DAYS TO MAKE MUTUALLY SATISFACTORY APPOINTMENT FRY WESTOPHONE NEWYORK +

2 o 3 maggio

Chiamare
Dall'Alto

ITALCABLE

sso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

UM0773 IAT155 NEWYORK 45 16 1329

PER LA RISPOSTA TELEFONATE AL N. 88.38

Am.

PROFESSOR GIULIO NATTA
OLITECNICO DI MILANO
IAZZA LEONARDO DA VINCI 32
~~THIRTYTWO~~ MILANO =

TELEGRAMMA via Italcable via Italo Radio

1956 APR 16 22 25

1459

ITALCABLE 16-4.1956 MILANO

Spazio riservato agli estremi di ricevimento

YOUR KIND LETTER APRIL TENTH GREATLY APPRECIATED VISIT OF DOCTOR MCMILLAN AND MR FELKER MUST BE POSTPONED A FEW DAYS I WILL TELEGRAPH NEW DATE AS SOON AS POSSIBLE =
FRY WESTOPHONE NEWYORK +

Harper, Sun Oil, opp?

P. J. Flory
Department of Chemistry
Cornell University
Ithaca, New York

NOV 7
5 30 PM

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Milano, Italy

MESSAGE MUST APPEAR ON INNER SIDE ONLY
NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

750

Department of Chemistry
Cornell University
Ithaca, New York
November 21, 1959.

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Milano, Italy

Dear Professor Natta:

I am pleased to have received your letter informing us that you hope to be able to visit Cornell next summer. I can imagine that there will be many invitations extended to you during your brief stay here, and hence that it might not be possible for you to [redacted] Mrs. Flory and I look forward to her visit as well, [redacted] Cornell [redacted]

Regarding your letter of November 11, it is understandable that the expected sale of an Italian edition of "Principles of Polymer Chemis being a rather specialized book, would be too limited to be worthwhile. I appreciate, nevertheless, your interest and assistance in exploring the possibility of such a [redacted]

I do not expect to attend the meeting at Rehovat next spring.

Very truly yours,

P. J. Flory

PJF:hmb

299

8 Ottobre 1956

Mr. Edwin J. BARTH
Chemical and Petroleum Engineer
Consultant

54 West Street

NORTHAMPTON, Mass.

Dear Mr. Barth,

With reference of your letter Sept. 22, I inform you that I am sorry, but I do not have any English translation of the article you asked for.

Yours sincerely,

(Prof. G. Natta)

86A

Ans.

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL LABORATORY
MURRAY HILL, NEW JERSEY
CRESTVIEW 3-6000

January 18, 1956

DR. GUILIO NATTA
Istituto di Chemica
Industriale del Politenico
Prazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

Thank you very much for your letter of December 17, giving me the title of your paper for the Elastomers Conference next summer. I am sending you herewith a copy of the completed program.

I am looking forward eagerly to meeting you next summer, and by all means if your time permits, we would be happy to have you visit us at the Bell Telephone Laboratories. If your plans materialize, please let us know what time would be convenient for you to be here and we shall make all necessary arrangements.

Very truly yours,

B. S. Biggs

B. S. BIGGS

BSB:MS

74/A

January 24, 1956

Mr. B. S. Biggs
Bell Telephone Laboratories
Murray Hill Laboratory
Murray Hill, New Jersey, U.S.A

Dear Dr. Biggs,

Many thanks for your letter of January 18, with the completed program of the Elastomers Conference.

I thank you also for your kind invitation to visit you at the Bell Telephone Laboratories; till now I have not settled my definitive schedule, but I hope to be able to visit you and I shall write again later.

With best personal regards,

Giulio Natta

8734

July 30, 1956

Prof. James Cason, Acting Dean
Dept. of Chemistry and Chemical
Engineering
University of California
BERKELEY 4 - California

Dear Professor Cason,

I regret very much that, because of some unforeseen developments, I have been obliged to shorten my stay in the States, and therefore, I have not been able to accept you very kind invitation to visit your famous University. I have missed this opportunity to meet you and Prof. Calvin and to visit California, but I hope to have the opportunity to come to the States next year, and in this case, I hope not to miss any opportunity to come to California.

Thanking you for your most kind offer, I remain,

Sincerely yours,

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

June 11, 1956

Professor Melvin Calvin
University of California
Berkeley, California

Dear Professor Calvin,

Please kindly permit me to take this opportunity to write you about the following matter:

Due to unexpected obligations in Milano, Professor Natta is forced to return to Europe around July 10, and very unfortunately cannot keep the appointments which he has made for the latter part of his trip. He has asked me to excuse him, and to assure you that he will be very glad to keep your kind invitation on his calendar and to postpone his acceptance until his next visit to this country. He expects to return next year, and I shall keep you informed about the date of his next trip, so that Professor Natta can find out when he can hope to have his postponed visit with your organization.

Please accept my kindest personal regards and best wishes. I am, as always,

Very sincerely yours,

H. Mark

HM:g

April 1[illegible], 1956

Mr. Thornton C. Fry
Assistant to President
Bell Telephone Laboratories
463 West Street
NEW YORK 14, N.Y., USA

Dear Mr. Fry,

Please excuse my long delay in replying to your kind letter of March 14, but I have been very busy during last weeks for several engagements, and only today I may assure you that I shall be in Milan from April 17 to 20. Prof. De Marchi, President of the Faculty of Engineering of our Polytechnic, will also be in Milan during the visit of your Dr. Brockway McMillan and Mr. J. H. Felker.

I wish to inform you, however, that in this moment all the engineering graduates of our Polytechnic Institute are employed, but we shall try to give you our best assistance, as possible.

Best regards.

Very truly yours,

Giulio Natta

Sede, 31 Ottobre 1956.

S E R E.

Mr. Davis della Celanese mi ha detto che attività particolari della Sua Ditta in questi ultimi tempi sono :

1. Copolimeri di etilene-acetato di vinile;

2. resine poliestere resistenti al fuoco , nel senso che i laminati di queste resine non mantengono la fiamma;

3. esteri fosforici da servire come fluidi per i comandi idrodinamici.

f.to: Orsoni

Or/sl.

61

September 10, 1956

fu

Mr. Ernest Schweizer
Summit Research Laboratories
Celanese Corporation of America
P.O. Box 1000
S U M M I T - N.J. - U.S.A.

Dear Mr. Schweizer,

Please excuse my delay in answering to your kind letter of June 12, but my busy trip through the States and the tremendous work I found in My Institute on my coming back, did not permit to do it before.

I wish to thank you very much for the translation you kindly sent to me through Mr. McFarlane; I appreciated very much it.

Please convey my best regards to Mr. Amerigo Caprio, and accept my best wishes.

Very sincerely yours,

(Prof. G. Natta)

CELANESE CORPORATION OF AMERICA

Manufacturers of Celanese *Brand Products*
REG. U. S. PAT. OFF.

P. O. BOX 1000
SUMMIT, NEW JERSEY
TELEPHONE: CRESTVIEW 3-6600

SUMMIT
RESEARCH LABORATORIES

Ann

June 12, 1956

OUR REF. ES-56-33

Professor Giulio Natta
Gordon Research Conferences
The New Hampton School
New Hampton, New Hampshire

si deve rispondere
o ha già fornito
in USA?

My dear Professor Natta:

From one of our chemists, I obtained a copy of the paper which you presented before the Gesellschaft Deutscher Chemiker in April, 1956. This paper contains such a wealth of experimental data and ingenious conclusions that I did not hesitate to undertake at once the task of translating it into English for the benefit of the members of our staff. Needless to say, I profited greatly from the close study of this paper.

Our Mr. Samuel McFarlane, who is at present attending the Gordon Conferences, suggested that you might be interested in this translation. Accordingly, I am sending you a copy of this translation through Mr. McFarlane. Unfortunately, I had no time to prepare a corrected copy. There might also be many inaccuracies in the translation. You will note that I had to take liberties in the construction of sentences mainly because in the English language, sentences cannot be "ineinandergeschachtelt" as it can be done in German. I tried, nevertheless, to preserve the meaning of the sentences.

It would give me great satisfaction, Dr. Natta, if this translation would be of any use to you. At any rate, I am grateful for the stimulus your paper aroused in me. May I extend to you and your collaborators my best wishes for your continued success in this newly opened field.

Very respectfully yours,

CELANESE CORPORATION OF AMERICA
SUMMIT RESEARCH LABORATORIES

E. Schweizer

Ernest Schweizer

ES:ceh
Encl.

Saluti cordiali da Amerigo Capizzi

536A

Am

CELANESE CORPORATION OF AMERICA

Manufacturers of Celanese *Brand Products*
REG. U.S. PAT. OFF.

P. O. BOX 1000
SUMMIT, NEW JERSEY
TELEPHONE: SUMMIT 6-6600

SUMMIT
RESEARCH LABORATORIES

OUR REF.

March 20, 1956

Prof. G. Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milano, Italy

Dear Professor Natta:

Thank you very much for the series of reprints on isotactic polymers which you sent me recently.

I am highly interested in structural work on synthetic and natural polymers and in correlations of chemical and physical structural characteristics with mechanical properties. In a recent seminar for our research staff I discussed the effect of order in polymers and used isotactic polymers as one of the main examples of what can be achieved by regularity of structure.

I am planning to spend my summer vacation (July or August) in Europe, visiting Italy, Austria and Germany. I would very much like to visit you and your Institute at Milan. I would appreciate it greatly if you let me know when such a visit could most conveniently be arranged.

I am,
Very sincerely yours,

Herman D. Noether

Herman D. Noether.

974

CELANESE CORPORATION OF AMERICA
Manufacturers of Celanese *Brand Products*
REG. U. S. PAT. OFF.
P. O. BOX 1000
SUMMIT, NEW JERSEY
TELEPHONE: SUMMIT 6-6600

SUMMIT
RESEARCH LABORATORIES

Arch.

OUR REF.
TEV-55-239

December 15, 1955

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico di Milano
Milano, Italy

Dear Professor Natta:

I was very interested in reading your recent papers concerning the synthesis and structural analysis of isotactic polymers as published in the Jour. Am. Chem. Soc. 77 1708 (1955), Jour. Polymer Science 16 143 (1955) and in Makromolekulare Chemie 16 213 (1955).

I would appreciate receiving reprints of these papers as well as your other papers in this field which are published in journals not at my disposal here. Also I would like to be placed on your mailing list for reprints of future publications in this field.

Very truly yours,

CELANESE CORPORATION OF AMERICA
SUMMIT RESEARCH LABORATORIES

H. D. Noether

H. D. Noether

chiesto
loro estratti

-3
177
178
179
181
184
186

HDN:mc

11.1.56

DEBELL & RICHARDSON, INC.

21 December 1956

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
32 Piazza Leonardo da Vinci
Milan, Italy

Dear Professor Natta:

It was a great pleasure to see you again at the polymer symposium at Notre Dame this last summer and we are all greatly impressed by the magnificent work that you and your associates are doing in mapping out and clarifying the new field of stereospecific olefin polymers.

At the time I mentioned to you of the interest of our Scandinavian friends in polyethylene manufacture; and at your suggestion I am writing a letter to Mr Orsoni as you will see from the enclosed copy.

My notes from the meeting state in one place that stereospecific catalysts of the titanium chloride/aluminum alkyl type had been used to make stereospecific polymers of vinyl chloride. I believe that either you or Professor Mark mentioned this, but I have not been able to find any reference to it in the literature. It would be very interesting to know if my notes are correct.

With best wishes for a Happy Christmas to you and Signora Natta, I remain,

Sincerely yours,

Sven Richter

Sven Richter

SR:ds

Encl.

March 28, 1956

Dr. Herman D. Noether
Celanese Corporation of America
Summit Research Laboratories
P.O. Box 1000
SUMMIT, NEW JERSEY, U.S.A.

Dear Doctor Noether,

Thank you for your letter of March 20, and for your very kind words about our work.

In regard to your visit in Europe, I inform you that I shall not be in Italy from the end of May till August, as I have been invited by the A.A.A.S. for three Gordon Research Conferences.

So, I am sorry, but it is no possible for me to meet you in Italy next summer, and I hope to have the opportunity to meet you during my stay in U.S.A.

With best regards.

Very sincerely yours,

Giulio Natta

27 Luglio 1956

Prof. G. F. D'Alelio, Head
Department of Chemistry
University of Notre Dame
NOTRE DAME - Indiana - U.S.A

Caro Professor D'Alelio,

Sono stato molto lieto di aver fatto la Sua conoscenza e mi dispiace solo di non essere potuto rimanere più a lungo a Notre Dame, ma era proprio necessario che rientrassi a Milano. La ringrazio moltissimo per tutte le Sue gentilezze, e a nome di mia moglie La prego di ringraziare la Sua gentile Signora.

Spero presto di poter avere altre occasioni di vederLa, magari in Italia.

Le faccio i miei più vivi auguri affinchè Sua figlia possa guarire completamente.

La prego di gradire i miei più cordiali saluti.

Giulio Natta

University of Notre Dame
Notre Dame, Indiana

Department of Chemistry

1193 A

July 18, 1956

Professor Giulio Natta
Istituto di Chimica Industriale
del Politechico
Piazza Leonardo da Vince, 32,
Milan, Italy

Dear Professor Natta:

May I express my sincere thanks to you for your participation in the Polymer Symposium at the University of Notre Dame. We owe you a debt of gratitude for its success.

With kind regards to you and Mrs. Natta, I am

Sincerely yours,

G F D'Alelio

B

G. F. D'Alelio, Head

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

June 11, 1956

Dr. G. F. D'Alelio
Department of Chemistry
University of Notre Dame
Notre Dame, Indiana

Dear Dr. D'Alelio,

Please kindly permit me to take this opportunity to write you about the following matter:

Due to unexpected obligations in Milano, Professor Natta is forced to return to Europe around July 10, and very unfortunately cannot keep the appointments which he has made for the latter part of his trip. He has asked me to excuse him, and to assure you that he will be very glad to keep your kind invitation on his calendar and to postpone its acceptance until his next visit in this country. He expects to return next year, and I shall keep you informed about the date of his next trip, so that Professor Natta can find out when he can hope to have his postponed visit with your organization.

Please accept my kindest personal regards and best wishes. I am, as always,

Very sincerely yours,

H. Mark

HM:g

June 13, 1956

Professor Herman Mark
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1, New York

COPY

Dear Herman:

Your letter of June 11, 1956 concerning Professor Natta and his unexpected return to Europe about July 10, reached me this morning. As I told you yesterday during our telephone conversation, I am very much disappointed at this turn of events. I tried to reach Dr. Giustiniani at Hotel Pierre and have left a call for him, without success so far.

I gather from your letter that Natta is under the impression that he would be speaking to a group composed of Notre Dame people alone, and that postponing this visit to another trip will compensate for this instance. Since he will visit you this weekend, I wish you would relay to him that we have already accepted, on the basis of his visit to South Bend, over 100 registrations from top executives in industry, and that these individuals have scheduled this trip on the basis of his acceptance. It would be a different matter if he had accepted tentatively, but it was a positive acceptance and we have advised our registrants of this fact. Perhaps his return is urgent, but I do not believe it can be as important as the damage he will do in this country to his own personal reputation and to Montecatini; and I feel I can say this as a first generation Italian, knowing the ways and feelings of American men in our universities and in industry. Already I have had a number of telephone calls from key-men and industry, and I must say that their reaction was not unexpected. I will be expecting your telephone call Monday on the possibility of substituting Dr. Pino, or some other alternate plan.

With kindest personal regards,

Sincerely yours,

B

G. F. D'Alelio, Head

cc. Dr. Giustiniani, President of Montecatini
(Hotel Pierre, New York City)

University of Notre Dame
Notre Dame, Indiana

Department of Chemistry

20 A

January 6, 1956

Professor G. Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

Professor Herman Mark has informed me that you will be visiting the United States between June and August 1956, and that you might be available to deliver a lecture at the University of Notre Dame. I have considered further the matter with Professor Mark and have proposed a one-day symposium on polymers with four speakers, namely, yourself, Professor Mark, Professor Ziegler, and Professor Sadron. Professor Mark has already accepted and any date will suit him, except the weeks of the Gordon Research Conference of July 2-6 and July 9-13, 1956. I would like to suggest one day during the week of July 15, and preferably Tuesday, July 17, 1956. I am extending a similar invitation to Professor Ziegler and Sadron.

To help defray your expenses, we can give you a stipend of $200 for the lecture plus an additional $100 for travel expenses.

Will you please let me know at your earliest convenience whether you can accept this invitation so that I can complete our arrangements to give you a most hospitable welcome.

With great admiration for your accomplishments, and with best wishes for a happy New Year, I am

Sincerely yours,

G F D'Alelio

B

G. F. D'Alelio, Head

cc. Professor Mark

January 18, 1956

Prof. G. F. D'Alelio, Head
Department of Chemistry
University of Notre Dame
NOTRE DAME = INDIANA = U.S.A.

Dear Professor D'Alelio,

I thank you very deeply for your letter of January 6, and for you kind invitation to deliver a lecture at your University between June and August 1956. I shall be very pleased to come to Notre Dame and to attend the Symposium with my colleagues and friends Professor Mark, Professor Sadron, and Professor Ziegler.

I shall come to the U.S.A. in the first days of June because I have been invited to deliver lectures at three Gordon Conferences, and namely:

Gordon Research Conference on "Organic Reactions and Processes", that will be held in the week from 11 to 15th June,

Gordon Conference on "High Polymers", that will be held during the first week of July, and

Gordon Conference on "Elastomers", during the week from 30th July to 4 August.

Therefore, I think that the date you suggested, July 17, 1956, will be convenient, if I shall not be obliged to come back to Europe in the period between the two last conferences; but I hope to be able to remain in the U.S.A. the entire month of July.

With many thanks and my best wishes for a Happy New Year, I am,

Very sincerely yours,

Giulio Natta

D'AGOSTINO ASSOCIATES
PERSONNEL CONSULTANTS
1060 BROAD STREET
NEWARK 2, N. J.

NEW YORK
LONDON
BIRMINGHAM
LIVERPOOL
PARIS
STOCKHOLM
OSLO
ZURICH
BASEL
MILANO
TORINO
AMSTERDAM
SYDNEY (AUSTRALIA)

(Emp. Agy.)
Cable: "AMERIGO NEWARK N J"
Phone:
MArket 3-7027

310

October 5, 1956

Prof. Giulio Natta
Piazza Leonardo da Vinci 32,
Milano, Italy

Dear Professor Natta:

We are Personnel Consultants for such United States firms as General Electric, Cincinnati; Stromberg-Carlson, Telecommunication and Electronics Division, Rochester, N.Y.; Sunbeam Electric; Monroe Calculating Machine Corp., Orange, N.J.; Lionel Corp., Newark, N.J.; Electrical Testing Laboratories, N.Y. and many others.

As Personnel Consultants for these and other firms, our task is to discover scientific personnel abroad with university degrees with 0 to plus experience in their respective fields.

We respectfully ask you to note that should you know of any young man or woman who cannot find satisfactory employment in your country, we would welcome an application so that we may submit the same to our clients. Needless to say, applicants are not and will not be required to pay any fee whatever and our clients will provide travel expenses to the United States and initiate appropriate immigration procedures leading to admission to the United States in the first preference quota.

Our quest is for Electrical, Mechanical, Electronic, Chemical Engineers, Physicists and mathematicians with university degrees who seek to develop their talents in research and development. While it is difficult to list all the requirements we have, we can say that young men and women with scientific aspirations will surely find many interesting offers to consider with salaries ranging from $6000 to $15,000 per year depending upon their education and experience backgrounds.

Our intent and desire is to offer to 5 or 10 Italian candidates an opportunity for advancement in their fields. It is not our scope to deprive any Italian industry of its present personnel nor to invite applications from them.

21 December 1956

Mr Bartolomeo Orsoni
Director of Research & Development
Montecatini SA
Milan, Italy

Dear Mr Orsoni:

This last summer we had a pleasant opportunity to renew our acquaintance with Professor Giulio Natta at the polymer symposium at Notre Dame, Indiana, where he described his magnificent studies on the stereospecificity of polyolefins. Professor Natta mentioned that your company would offer, in the fall of this year, manufacturing procedures and knowhow to licensees all over the world for the manufacture of polyethylene, polypropylene and possibly copolymers.

The Scandinavian countries do not as yet have a domestic production of polyethylene, but their consumption will soon reach a level where such manufacture, based on petroleum derived ethylene and propylene, would be economical and profitable. We have been asked by an important financial group in Sweden to make a survey of presently available processes and to advise the group in regard to processes that should be given serious consideration in taking licenses.

The presently contemplated size is 10,000-14,000 metric tons per year of which about two thirds would be conventional low density materials and the remainder a high density product. Fairly large quantities of propylene would be available as byproduct from the ethylene manufacturing facilities and may either be used for detergent manufacture or other chemical activities; or directed into the copolymer field.

We would be most grateful to you for any word as to the possibility of licensing agreement on polyethylene and polyolefines, the probable conditions attached thereto, minimum economic units, and other pertinent factors. A chance for direct discussions with appropriate people, especially if some of your executives are to be in this area, would of course be most helpful.

I believe you are familiar with the activities of our organisation as consultants to the plastics industry in the United States and many other countries, and may I in this matter also refer to a conversation this summer between Dr Giustiniani and the president of our organisation, Mr John M DeBell.

We shall appreciate word from you, and in the meanwhile, we remain,

Sincerely yours,

SR:dd

Sven Richter

CC: Dr Piero Giustiniani

Professor Giulio Natta, Istituto Politecnico

985
Ann.

January 9, 1957

Mr. Sven Richter
DeBell & Richardson, Inc.
HAZARDVILLE, Connecticut, U.S.A.

Dear Mr. Richter,

I received your kind letter of December 21, 1956, and I thank you very deeply for your wishes that I reciprocate for a Happy New Year.

In regard to the production of stereospecific polymers of vinyl chloride, no work has been published on this argument, as far as I know. Most surely, polymers with higher crystallinity have been obtained in Europe and in U.S.A., but till now it does not seem that products of particular practical interest have been made.

With best regards,

Sincerely yours,

Giulio Natta

The Italian Labor Counsellor of the Italian Embassy in Washington has been apprised of our program.

Upon receiving any application, our procedure is to submit the same to any one of the above clients who desire the specific talent in question, after which the applicant deals directly with our client.

We shall be grateful to you if you will make a mental note of this letter to the end that in your daily academic contacts you may invite a qualified graduate to write to us.

Respectfully yours,

Amerigo D'Agostino

D'AGOSTINO ASSOCIATES

D/m

84 A

Am.

THE JOHNS HOPKINS UNIVERSITY
BALTIMORE 18, MARYLAND

DEPARTMENT OF CHEMISTRY

January 12, 1956

Professor G. Natta
Institute of Industrial Chemistry
Milan, Italy

Dear Professor Natta:

I am leaving for a weeks' trip within a few hours but shall try to give you an answer to the various questions raised in your letter of December twentieth before I go.

Your first question as to whether Dr. Orchin is covering the synthesis of alcohol from carbon monoxide, hydrogen and olefins in his chapter on Oxosynthesis, can be answered in the affirmative. He definately plans to include this material. Similarly, Dr. Anderson will be covering the work on higher alcohol synthesis in connection with the Fischer-Tropsch work. I am glad to learn however, that you are planning to write a chapter relative to the production of alcohol from the hydrogenation of acids and esters. This will not be covered by anyone else and should be a very valuable contribution.

The time schedule that you propose is satisfactory if you can really make the dates that you suggest. The chapter on higher alcohols will not delay the next volume of the book provided it is really in my hands by the end of January. I want to be able to turn all the material for Volume V over to the printers within a week or two after that date. Accordingly, I hope that the chapter on higher alcohols can arrive by the end of January. The second chapter will be in time if it arrives by the end of March. I have set the deadline as the first of March for the material in Volume VI in which it would probably be placed. However, I am pretty sure that all the material will not be in by the first of March so that your chapter arriving by the end of March in sufficient time for conclusion in Volume VI.

I want to thank you again for your fine cooperation in writing these various chapters. I have heard a number of favorable comments on the chapter that you wrote on methanol synthesis. I think that you are to be congratulated both on the way you wrote the chapter and on the nice experimental work that you did in connection with obtaining good data for the kinetics of methanol synthesis.

With kindest personal regards and all good wishes for the new year, I am

Sincerely yours,

Paul H. Emmett

Paul H. Emmett
Professor of Chemistry

PHE/ep

articolo nel Vol V o VI
Nella lettera precedente annunciava un's del Carbon - Non è ancora arrivato, cosa mai lo compie lui personale

Ha scritto Colonna che estende di rinviare il lavoro all'ultimo volume (~ 20/1)

CORNELL UNIVERSITY
DEPARTMENT OF CHEMISTRY
ITHACA, NEW YORK

June 7, 1956

Prof. G. Natta
Hotel Pierre
5th Avenue
New York, New York

Dear Prof. Natta:

I have just received your letter mailed on June 1 stating that you and Mrs. Natta will arrive in New York in a couple of days. May I take this opportunity to welcome you to the U. S. A. and express the hope that both of you will enjoy you visit here.

I expect to be at the Gordon Conference and will look forward to seeing you at that time. I can appreciate that yourtime will be limited while here. We would be most happy to have you visit us but if this is not possible we will of course understand the circumstances.

With kind regards.

Very truly yours,

Paul J. Flory

PJF/mjf

NOTES

UNIVERSITY OF NOTRE DAME

Polymer Symposium

★

Sponsored by

W. R. GRACE
RESEARCH AND DEVELOPMENT COMPANY

★

July 16 and 17, 1956

★

NOTRE DAME, INDIANA

Program

★

SYMPOSIUM REGISTRATION AT MORRIS INN

"On the Campus"

Sunday, July 15 . . . . . 1:00 p. m. to 11:00 p. m.

Monday, July 16 . . . . . 8:00 a. m. to 10:00 a. m.

★

BUFFET SUPPER

Monday, July 16 . . . . . 6:00 p. m. at Morris Inn

Tickets to the supper must be obtained at the registration desk before 10:00 a. m., July 16

★

MEALS

Regular meals may be obtained at Morris Inn or at the Student Cafeteria

★

GOLF

Arrangements for golf reservations on the campus course should be made at the registration desk

★

Business Manager — Symposium . . . . PROFESSOR A. J. BOYLE

Polymer Symposium

★

July 16, 1956

Morning Session — 10:00 a. m.

PROFESSOR G. F. D'ALELIO, *Presiding*

1. Address of Welcome . . . . REV. EDMUND P. JOYCE, C.S.C.
   Executive Vice President, University of Notre Dame

2. PROFESSOR GIULIO NATTA . . . Polytechnic Institute of Milan
   "Stereospecific Catalysis and Isotactic Polymers"

3. DR. A. P. LIEN . . . . . Standard Oil of Indiana
   "Catalysts for the Production of Crystalline Polyethylenes"

★

Afternoon Session — 2:00 p. m.

4. DR. W. B. REYNOLDS . . . . Phillips Petroleum Company
   "Phillips Polyolefin Process and Products"

5. PROFESSOR HERMAN MARK . . Polytechnic Institute of Brooklyn
   "The Integrated Story of the Mechanism of Heterogeneous Addition Polymerization"

★

July 17, 1956

Morning Session — 10:00 a. m.

PANEL DISCUSSION . . . . *Answers to Questions Submitted*

610
Ann.

CORNELL UNIVERSITY
DEPARTMENT OF CHEMISTRY
ITHACA, NEW YORK

October 28, 1955.

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Milano, Italy

Dear Professor Natta:

I have just been informed by Professor Mark that you expect to be visiting the United States next summer. Permit me to extend to you a most cordial invitation to visit us at Cornell during your stay here. We would be pleased also if you would deliver a lecture on some phase of your work to our staff and graduate students.

In the event that you agree to this proposal, we shall be glad to reimburse you for expenses in connection with the trip to Ithaca and also to offer you an honorarium of $50.00. Unfortunately, the audience for your lecture would not be qualified to comprehend it in any language other than English. I hope that you will not find this a deterrent to the acceptance of our proposal.

Mrs. Flory joins me in sending best regards to Mrs. Natta and yourself. We would be delighted also to have Mrs. Natta as our guest in Ithaca.

Very truly yours,

P. J. Flory.

PJF:hmb

10 H6A

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

June 12, 1956

Prof. G. Natta
Hotel Pierre
New York, N.Y.

Dear Professor Natta:

I am referring to the brief conversation which I had with you at Dr. Overberger's home on June 9th.

During my stay in Europe I shall also be in Milano and I would very much like to visit you and your laboratory. The most suitable date would be September 3 or as a second choice September 4.

I have recently worked on the following topics:
1. High Temperature Light Scattering.
2. Physical Properties of Dyestuff Solutions.
3. Interaction of Dyestuffs with Watersoluble Polymers, part. PVP.

If you think that there might be any interest in anyone of these topics I should be glad to give a seminar.

I am looking forward to hear from you (until July 1: Brooklyn address, between July 1 - August 15 mail can be sent to me at: Wien IX., Rooseveltpl.4, Austria).

With best regards and hoping you have a pleasant stay here in America, I am

Sincerely yours,
H. Peter Frank
H.Peter Frank

cc: Prof. Natta, Milano

1046 A

Ann

June 12, 1956

Prof. G. Natta
Hotel Pierre
New York, N.Y.

Dear Professor Natta:

I am referring to the brief conversation which I had with you at Dr. Overberger's home on June 9th.

During my stay in Europe I shall also be in Milano and I would very much like to visit you and your laboratory. The most suitable date would be September 3 or as a second choice September 4.

I have recently worked on the following topics:
1. High Temperature Light Scattering.
2. Physical Properties of Dyestuff Solutions.
3. Interaction of Dyestuffs with Watersoluble Polymers, part. PVP.

If you think that there might be any interest in anyone of these topics I should be glad to give a seminar.

I am looking forward to hear from you (until July 1: Brooklyn address, between July 1 - August 15 mail can be sent to me at: Wien IX., Rooseveltpl.4, Austria).

With best regards and hoping you have a pleasant stay here in America, I am

Sincerely yours,

H.Peter Frank

cc: Prof. Natta, Milano

Poly Technic Inst Brooklyn

58A

FARM JOURNAL, INC.

WASHINGTON SQUARE -:- PHILADELPHIA 5, PA.

WHEELER MCMILLEN
Vice President

January 11, 1956

Professor and Mrs. Giulio Natta
Via Mario Pagano 54
Milan, Italy

Dear Professor and Mrs. Natta:

Thank you so much for your holiday greeting. It brings again vividly to mind the memorably delightful evening which Dr. Miller and I were permitted to share with you in Milan in 1950. However, no special occasion is necessary to bring that to mind because I think of it many times each year.

Although five years have already passed since my last visit to your country the old world appears determined to continue to live in a degree of uncertainty and turbulence. Underneath it all, however, there seems to be much determination and hope that it shall be a better world for more people and certainly we all trust that the remainder of the century may write some happier pages in the annals of human history.

It has been long indeed since I have seen the colleague of my visit to Milan. Within the forthcoming week I expect to have a few spare hours in Washington and fully intend to try to get in touch with him. One of the disadvantages of active business life in these times is that one has too little opportunity to renew and maintain the pleasanter friendships which help to make life agreeable.

I take the liberty of sending with this letter one of the surviving evidences of my 1955 activities.

With deepest appreciation for your thought of me and with the best of good wishes to you for a happy and healthful and comfortable 1956, I am

Sincerely,

Wheeler McMillen

Wheeler McMillen

WMcM/pb

475A

Ans.

The Mark of Specialized Research Gates

THE GATES RUBBER COMPANY

DENVER 17, COLORADO

March 15, 1956

Prof. G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32 - Milano
Italy

Dear Prof. Natta:

Your prompt response to my inquiry on isotactical polymers was greatly appreciated. I am looking forward with interest to reading the papers that you are sending under separate cover.

I am happy to see that you are going to participate in the Gordon Research Conference this summer and I am sure your papers will add much to our knowledge of polymers in this country.

Thanks, also, for referring me to Dr. G. Saccenti of the Montecatini Company.

Sincerely yours,

Ray Thoman

Chief Chemist

Ray Thoman/bkg

370 A

Ann

The Mark of Specialized Research Gates

THE GATES RUBBER COMPANY

DENVER 17, COLORADO

February 16, 1956

Dr. Julio Natta
Milan Polytechnic Institute
Milan, Italy

Dear Dr. Natta:

I have read with interest brief comments on your work with polypropylene but I cannot find anything in American literature describing the properties of this material.

If you are free to do so, I would appreciate your sending me any technical information available characterizing polypropylene. I am not particularly interested in the process and manufacture as our company primarily are consumers and are not in chemical manufacturing. However, if it is possible for you to briefly describe the process, it would be of interest to me for academic reasons.

Very truly yours,

Ray Thoman

Chief Chemist

Ray Thoman/bkg

19A bis

UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

The William Albert Noyes Laboratory

Americe

Gennaio 6, 1956

Professor Natta
Politecnico di Milano
Milano, Italy

Caro Professore:

La Sua pubblicazione su "La Chimica e l'Industria" dello scorso ottobre circa i polimeri isotattici ha suscitato un notevole interesse qui all'Università dell'Illinois.

Il professor Marvel mi ha pregato di effettuarne una traduzione in inglese cosicchè il Suo lavoro possa essere meglio conosciuto dai componenti del locale gruppo di ricerca sui polimeri sintetici.

Io Le sarei molto grato se Lei volesse farmi pervenire copie di tutte le Sue recenti pubblicazioni sugli isotattici, cosicchè io possa meglio illustrare nella mia traduzione alcuni punti del Suo lavoro.

Con distinti saluti,

Maurizio Gianturco

Maurizio Gianturco

Dr. Maurizio Gianturco
Research Associate
208 Noyes Laboratory
Urbana, Illinois
U. S. A.

712 ff

1.6.1956

Ann

Dear Prof.P.J.Flory
Department of Chemistry
Cornell University
ITHACA, New York, U.S.A.

Dear Prof.Flory,

Following up our precedent mail, I wish to inform you that I shall arrive in New York ou June 5, and I shall be with my wife at the Hotel Pierre (5° Avenue) till June 9.

During my staying in U.S.A., I shall be very busy as I shal attend three Gordon Conferences (Organic Reactions, High Polymers, and Elastomers) and visit also several Companies interested in our polymers. Therefore, it has heen very difficult for me to fixe a day to visit you in Ithaca.

I saw, moreover, that you will attend the Conference on Hig Polymers and I shall be very glad to meet you and to discuss with you several problems about crystallisation. of polymers.

With kindest regards

G.Natta

November 10, 1955

Professor Paul J. Flory
Cornell University
Department of Chemistry
I T H A C A, New York, U.S.A.

Dear Professor Flory,

Thank you very much for your kind letter of October 28 and for your kind invitation to give a lecture at the Cornell University.

I wish to inform you that I am invited also by the Gordon Research Conference on Elastomers wich will be held during the week of July 30 to August 3. I believe, therefore, that I shall stay in the U.S.A. from June 25 to August 5-10. I received already several invitations to give lectures by DuPont, Dow, Hercules Powder and invitation to visit several other American Companies. At any rate, I assure you that I shall do my best to dedicate some time to visit also you in Ithaca. As I know English not very well, I shall be obliged to read my lecture that will contain several figures and tables.

Mrs. Natta, who will come with me to the U.S.A., will be very delighted to see again Mrs. Flory and joins me in sending Mrs. Flory and yourself best regards.

Very truly yours,

G. Natta

August 1, 1956

Prof. H. Peter Frank
Roosevelttpl. 4
WIEN IX - Austria

Dear Professor Frank,

I have been back some days ago to Milan, where I found mopy of your letter of June 12.

Before leaving the States, I asked Prof. Overberger and Prof. Mark to tell you that it was not possible for you to give a seminar at the Polytechnic on Septemb r 3 or 4, because in such a period there is still vacations.

I am sorry not to be able to have your seminar, but I shall be glad to meet you if you will have the opportunity to come to Milan.

With my best wishes, I remain,

Sincerely yours,

Giulio Natta

934A
Am

GODFREY L. CABOT, INC.
RESEARCH AND DEVELOPMENT DEPARTMENT
38 MEMORIAL DRIVE
CAMBRIDGE 42, MASSACHUSETTS

UNIVERSITY 4-1430

May 24, 1956

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am pleased to learn from your recent letter that June 28th is a convenient day for your visit to our laboratory. I presume that Mrs. Natta and you will arrive in Boston on the evening of Wednesday, June 27th, and if you will proceed directly to the Statler Hotel you will find your reservations in order. I will call for you at the Hotel about 9:00 A.M. the morning of the 28th.

Our plan is to hold an informal discussion on the morning of the 28th, with members of our staff, regarding some of the research now underway in our laboratory. In the afternoon we would like to have you give a lecture, on some of your recent work, to the members of our staff as well as to invited members from the neighboring universities and industries. Professor Mark plans to be present.

Looking forward with great interest to our meeting, I am

Sincerely yours,

W. R. Smith

WRS/mm

W. R. Smith

CABOT

837A

Ann

GODFREY L. CABOT, INC.
RESEARCH AND DEVELOPMENT DEPARTMENT
38 MEMORIAL DRIVE
CAMBRIDGE 42, MASSACHUSETTS
UNIVERSITY 4-1430

"AIR MAIL"

May 8, 1956

Professor Giulio Natta
Polytechnic Institute of Milano
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta:

I learn with great pleasure from Professor Mark that it has been possible for you to arrange a visit to our laboratory during your forthcoming trip to the United States. It will be a great pleasure to have you as our guest.

On the proposed schedule which Professor Mark has circulated, he has suggested that you visit the Cabot laboratories on June 29th, and the Massachusetts Institute of Technology on June 28th. It would be much more convenient for us if these dates were reversed. Our laboratory is located adjacent to the Massachusetts Institute of Technology so that this reversal of dates involves no traveling. I have talked with Dr. Stockmayer of M.I.T. and this arrangement is quite agreeable with him. This is also quite agreeable with Professor Mark, who plans to accompany you on your visit to Cambridge. Accordingly, unless we hear from you to the contrary, we will expect you at the Cabot laboratory on the morning of June 28th.

We are reserving a double room for you and Mrs. Natta at the Hotel Statler in Boston. I assume that you will be arriving in Boston on the evening of June 27th, and we have made your hotel reservation accordingly for June 27th until your departure for New London on June 30th. The Statler Hotel is only a few minutes by taxi from our laboratories.

We would like to have you spend the morning of June 28th with the members of our laboratory discussing matters of mutual interest. In the afternoon, we would like to have you give a seminar on some aspects of your recent work. This seminar will include invited guests from the neighboring industries and universities.

Will you kindly let me know at your earliest convenience if these arrangements are satisfactory.

Very truly yours,

W. R. Smith

W. R. Smith
Associate Director of Research

WRS/mm

cc: Professor H. Mark

CABOT

March 6, 1956

Mr. Ray Thoman, Chief Chemist
THE GATES RUBBER COMPANY
DENVER 17 = COLORADO

Dear Mr. Thoman,

I received your letter of February 16. The most of my publications on the argument of isotactical polymers are of scientifi kind. I am sending you, under separate cover, one of my papers "Polymères isotactiques" published on "Die Makromolekulare Chemie", ho ing it will be of interest to you.

As I shall partecipate to the "Gordon Research Conference on "High Polymers", I think that more detailed communications will presented in this occasione. You may also address yourself to the Montecatini Co. (Dr. G. Saccenti, Direttore Settore Resine, Via F. Tur 18, Milan, Italy), that is producing isotactical polymers in a pilo plant, to ask some technical informations as soon as they become av able.

Very truly yours,

(Prof. G. Natta)

The General Tire & Rubber Company

RESEARCH LABORATORY

AKRON 9, OHIO, U.S.A.

November 27, 1956

712 Am

Dr. Giulio Natta
Istituto Chimico del Politecnico
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Dr. Natta:

As Chairman of the 1957 Gordon Research Conference on Elastomers, I am now in the process of organizing the program. It always adds to the interest and value of these Conferences if scientists from other lands are present and make contributions to the program. I would like, therefore, to invite you or a member of your staff who find it possible to attend the Conference on Elastomers which will be held the week of July 29 to August 2 at Colby Junior College, New London, New Hampshire.

Your paper which was read by your colleague, Mr. M. L. Ottolenghi, at the Elastomer Conference this year was extremely well received. Further, I have in mind your wish expressed at the close of your paper by Mr. Ottolenghi that you would like to return again next year and perhaps visit the Conference on Elastomers. I am certain that there is much new work in your laboratories which will be of great interest to your American friends in the field of Elastomers. Reports of your research have attracted great attention in the United States and the synthesis of the various stereo specific forms of butadiene and isoprene is particularly of interest to all who are involved in rubber research.

As you are aware, the membership of these research conferences is limited to approximately 100 scientists. The High Polymer conference which you attended in person last year was so hopelessly oversubscribed that it was made an exception to the usual membership limitation. However, in the interest of casual discussion, it is the intention of the Conference to avoid over-crowding. It is clear, therefore, that should you plan to attend the Elastomer Conference, it would in no way detract from your attendance at another conference such as the one on High Polymers.

I look forward to hearing from you and I am most hopeful that you will consent to attend the Elastomer Conference.

Very truly yours,

E. E. Gruber

EEG/fs

E. E. Gruber

December, 1[illegible], 1956

Mr. A. A. GRUBER
The General Tire and Rubber Co.
A[illegible] R[illegible] = OHIO = U.S.A.

Dear Mr. Gruber,

Many thanks for your kind letter of November 27, with the very appreciated invitation to attend the Gordon Research Conference on Elastomers, that will be held the week of July 29 to August 4, 1957, at Colby College in New London.

I may [illegible] be very pleased to be able to attend this Conference, as I keep a very good impression from the two Gordon Conferences I attended this year, and I was very sorry to be obliged to come back to Italy before attending last Elastomers Conference. Unfortunately, I have already taken a series of engagements during the first half-year and the July 1957. Furthermore, I accepted the invitation to give the opening lecture of the International Congress of the International Union of Pure and Applied Chemistry (I.U.P.A.C.), that will be held in Paris from July 18, to 25, 1957. Therefore, I cannot till now decide if I may come to the States after the Paris Congress.

However, I shall do all my best and I hope to be able to give you a definitive answer on this matter about March or April 1957.

With my best personal regards and best wishes for a Happy New Year I am,

Sincerely yours,

Giulio Natta

16 Gennaio 1956

Dr. Maurizio Gianturco
Research Associate
208 Noyes Laboratory
URBANA = Illinois (U.S.A.)

Egregio Dottor Gianturco,

Ho ricevuto la Sua gentile lettera del 6 u.s. e Le ho inviato, con plico separato, tutte le mie pubblicazioni sull'argomento che Le interessa.

La informo inoltre che la mia pubblicazione su "La Chimica e l'Industria" sui polimeri isotattici è stata già pubblicata in tedesco su "Die Makromolekulare Chemie", mentre la prima pubblicazione sui polimeri isotattici, che è apparsa sugli atti dell'Accademia Nazionale dei Lincei" è stata anche pubblicata in francese sul "Journal of Polymer Science".

I migliori saluti.

(Giulio Natta)

August 2, 1956

Dr. E. A. Medalia
Godfrey L. Cabot, Inc.
Research and Development Dept.
38 Memorial Drive
Cambridge 42, Mass., U.S.A.

Dear Dr. Medalia,

Please excuse me if I did not write to you before my coming over to Milan, but my busy trip through the States was so busy that I could not find the time to do it.

Mrs. Natta and myself enjoyed very much for having made the acquaintance of Mrs. Medalia and you, and of the fine people of Cabot. I wish to thank you and all them for all kindness we received during our stay in Cambridge and our visit to your Laboratory.

Mrs. Natta and myself hope to be able to see Mrs. Medalia and you again in Europe or in the States, and in the meantime, we send you both our best regards.

Sincerely yours,

Giulio Natta

853 A

GORDON RESEARCH CONFERENCES

OF THE

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

15 April 1956

ricevuto il 15 maggio 1956

W. GEORGE PARKS, DIRECTOR
DEPARTMENT OF CHEMISTRY
UNIVERSITY OF RHODE ISLAND
KINGSTON, RHODE ISLAND

Professor Giulio Natta
Institute de Chemica
Industriale del Politechnico
Piazzo Leonardo da Vinci
32 Milan, Italy

Subject: Conference on Organic Reactions and Processes, 11-15 June 1956
New Hampton School, New Hampton, New Hampshire

Dear Dr. Natta:

A statement of the Conference regulations and general information is enclosed to aid you in completing the registration card. The Chairman, Vice Chairman and speakers are required to register for the Conference. The $25.00 deposit will be applied toward your expenses in addition to any assistance you may be granted from the special assistance fund available for use by the Chairman of the Conference. Additional information with respect to the Conferences is available in "Science", 123, 357, (1956) and in "Chemical and Engineering News", 34, 1252, (1956).

There is also enclosed a blank form requesting information as to the day, time and place of your arrival in New Hampshire. Will you please fill out this form and return it with the registration card. A summary of train schedules from New York City and Boston, Massachusetts is enclosed.

We are looking forward to a very successful Conference this summer. Numerous letters have been received in this office, commenting on the excellent program that has been arranged. If you have any questions or desire additional information, please write me.

Very truly yours,

W. George Parks

W. George Parks, Director

WGP:jf
Enclosures

Completed registration must
be received not later than

GORDON RESEARCH CONFERENCES, AAAS - 1956

Transportation to New Hampton School, New Hampton, New Hampshire

The train schedules for the Boston and Maine Railroad are printed showing Eastern Daylight Saving Time.

Leave Boston, Mass., North Station	Arrive Franklin, N. H.
8:45 a.m. Daily	10:58 a.m. Daily
1:00 p.m. Daily	3:14 p.m. Daily
6:30 p.m. Daily except Sunday	8:29 p.m. Daily except Sunday
8:50 p.m. Daily - Change to Bus at Concord, N. H.	11:40 p.m. Daily

Leave Franklin, N. H.	Arrive Boston, Mass., North Sta.
4:30 a.m. Daily except Sunday	6:45 a.m. Daily except Sunday
5:35 a.m. Sunday only	7:55 a.m. Sunday only
7:32 a.m. Daily except Sunday	9:30 a.m. Daily except Sunday
1:52 p.m. Daily except Sunday	4:20 p.m. Daily except Sunday
4:37 p.m. Daily	6:55 p.m. Daily
* 7:36 p.m. Daily	10:30 p.m. Daily
* 8:27 p.m. Sunday only	10:30 p.m. Sunday

* Sleeping car from Concord, New Hampshire, to New York City (Grand Central Station) except Saturdays - arrive 7:30 a.m.

Northeast Airlines available from New York City and Boston to Concord, New Hampshire and Laconia, New Hampshire. Consult Northeast summer schedule if you desire to travel by airplane. Arrangements will be made for transportation to New Hampton if requested (extra charge necessary).

REGULATIONS AND GENERAL INFORMATION

Registration - In order to complete registration, will you please fill out and return the registration card. Under "Special Requirements" please state whether you require a single room (supply limited) or if you desire to share a double room with a particular individual. Any other requirements, such as a physical handicap requiring the elimination of steps, should be stated.

The $25.00 deposit which you send with your completed registration card will cover the registration fee of $20.00 for residence members; the balance will be credited against room and meal charges. If the deposit has been received with your original application, the card is marked "Paid."

Individuals not in residence at the Conferences because of special requirements must pay a registration fee of $25.00.

Conference Meetings - The meetings will be held daily at 9:00 a.m. and 7:30 p.m., (except Friday, when no evening session will be held). The Conferences will close at noon on Friday.

Badges - It is necessary to check in at the office and obtain your badge when you arrive. It is equally important when you leave to notify the office and return your badge. This information is necessary for preparing the bill.

Rooms and Meals - Your room will be available for occupancy the Sunday afternoon prior to the Conference you are planning to attend, and supper will be served Sunday evening. Rooms may be occupied until the following Sunday morning, if desired. Meals are served American Plan during the Conference but will not be available after Friday noon.

Recreation - Golf, swimming, tennis, etc., are available and, although it is possible to obtain certain athletic equipment through the Conferences, it is suggested that you bring your own tennis racket, bathing suit, golf clubs, etc., if you wish to participate in these activities. There are also archery targets horsechoe courts, badminton courts and ping-pong tables available, and equipment can be obtained through the Conferences.

Mail - Mail during the Conference should be addressed to the New Hampton School, New Hampton, New Hampshire.

Children - Accomodations for children under 12 years of age cannot be provided at the Conferences because facilities are not available for young children.

Pets - Pets are not permitted in the dormitories.

Snack Bar - New Hampton, N. H., is a dry town by local option. It is suggested that you provide your own supply of your favorite brand if it is desired during your visit to New Hampton. Sandwiches, set-ups, etc., can be purchased through the Snack Bar which will be operated in conjunction with the Lounge. Liquor can be purchased in State operated package stores. The nearest store is located in Meredith, N. H., approximately 9 miles from New Hampton.

Cancellation - If it is necessary to cancel a registration, the notice must be received three weeks prior to the Conference. If such notice is received, $20.00 will be refunded from the deposit. This time limit on cancellations must be observed in order to reassign the space.

CARNEGIE INSTITUTE OF TECHNOLOGY
SCHENLEY PARK
PITTSBURGH 13, PENNSYLVANIA

DEPARTMENT OF CHEMISTRY

g 687A Ann.

April 17, 1956

Prof. Giulio Natta
Institute of Chemistry
Polytecnico de Milano
Piazzo Leonardo de Vinci 32
Milano, Italy

Dear Prof. Natta:

I am very sorry for the delay in sending you an application blank for space reservations at our Gordon Research Conference on Organic Reactions and Processes at New Hampton, New Hampshire, June 11-15, 1956. Actually you are assured of space at the Conference; I have seen to that. Dr. Park's office needs your completed reservation blank only so that he can tell what specific kind of accommodations you will need. I hope you will send the completed form to Dr. Park's office as soon as it is convenient for you to do so.

We are also tentatively reserving space at the Conference for Prof. Pino, in the hope that it will be possible for him to make the trip with you. I am writing Prof. Pino in this sense and I am sending him a reservation blank.

I am looking forward to meeting you at New Hampton, and I am sure that you will enjoy your stay with us.

Very truly yours,

Robert B. Carlin

Robert B. Carlin
Becker Professor of Organic Chemistry

RBC/mk

August 2, 1956

Mr. F. C. Mckenzie
Godfrey L. Cabot, Inc.
Research and Development Dept.
39 Memorial Drive
Cambridge 42, Mass., U.S.A.

Dear Mr. Mckenzie,

I regret very much that my busy trip through the States did not permit me to write to you before my coming back to Milan.

Mrs. Natta and myself wish to thank you very much for all the kindness we received during the visit to the Cabot Laboratory. I have been very pleased to have made the acquaintance of the fine people of the Cabot; please convey my best thanks to all them.

Hoping to have soon the pleasure to meet Mrs. Mckenzie and you again in Europe or in the States, Mrs. Natta and myself send you the best wishes.

Sincerely yours,

Giulio Natta

4

August 2, 1956

Mr. W. E. Smith
Associate Director of Research
Godfrey L. Cabot Inc.
Research and Development Dept.
35 Memorial Drive
Cambridge 42, Mass., U.S.A.

Dear Mr. Smith,

I wanted to thank you for all your kindness during my stay in Cambridge, before my coming back to Italy, but my busy trip through the States did not permit me to do it. I keep a good remembrance of my visit to your Company and I wish to thank very much you and all the people of Cabot that I met in Cambridge. Please convey also my best regards to Mr. Louis Cabot.

I received also some very interesting reprints of your papers and I thank you very much also for your sending them.

I do hope to be able to meet you again in Europe or in the States.

With best wishes, I remain,

Sincerely yours,

Giulio Natta

0964 A

May 30, 1956

Mr. W. R. Smith
Research & Development Dept.
Godfrey L. Cabot, Inc.
38 Memorial Drive
CAMBRIDGE 42 - Massachussetts

Dear Mr. Smith,

Many thanks for your very kind letter of May 24 and for the hotel reservations you kindly made for us.

Looking forward to seeing you soon, I am,

Very sincerely yours,

Giulio Natta

May 18, 1956

Dr. W. R. Smith
Associate Director of Resea
Godfrey L. Cabot Inc.
Research & Development Dep
38 Memorial Drive
CAMBRIDGE 42 - MASSACHUSSETT

Dear Mr. Smith,

Many thanks for your kind letter of May 8, concerning my visit to the Cabot Laboratories.

As for me, your proposal to visit the Cabot Laboratories on June 28, and the Massachussets Institute of Technology on June 29, is quite agreeable.

Therefore, if it is no objection from the M.I.T., I shall be glad to visit you on June 28 and to follow the program you sheduled for me.

Many thanks also for the hotel reservation you kindly did for me.

With kindest regards.

Very sincerely yours,

Giulio Natta

April 7, 1956

Dr. W. George Parks, Director
Gordon Research Conferences, AAAS
University of Rhode Island
K I N G S T O N - Rhode Island

Dear Dr. Parks,

I received the application form and the request for reservation for the Gordon Research Conference on "High Polymers" and only the request for reservation for the Gordon Conference on "Elastomers". I return to you these forms completed.

I have been also invited to give a lecture to the Gordon Research Conference on "Organic Reactions and Processes" to be held on June 11, but till now, I do not receive the relative forms to be completed.

With best regards.

Very sincerely yours,

Giulio Natta

Encl.

May 17, 1956

Mr. W. George Parks, Director
Department of Chemistry
University of Rhode Island
KINGSTON, Rhode Island, USA

Dear Professor Parks,

I am sending you, enclosed herewith, the completed cards for Mrs. Natta and for myself for registration of Conference Members.

Looking forward to seeing you, I send you my best regards.

Very sincerely yours,

(Giulio Natta

Encl.

April 23, 1956

Dr. W. George Parks, Director
Gordon Research Conference, A
University of Rhode Island
K I N G S T O N - Rhode Isla

Dear Doctor Parks,

I am sending you, enclosed herewith, an application blank for space reservation at the Gordon Research Conference on Organic Reactions and Processes at New Hampton, that I have just now received from Dr. R. B. Carlin.

With best regards, I am

Sincerely yours,

Giulio Natta

Encl.

55 A

UNIVERSITY OF ILLINOIS Urbana, Illinois
208 Noyes Laboratory
Dr. R. N. Giuntoni

Urbana, 27 Gennaio, 1956

Caro Professore,

Le sono molto grato per la cortese premura con cui Lei ha risposto alla mia richiesta.

Il professor Harold Snyder, che sarà a Milano per una lezione nel prossimo aprile, certamente Le dirà dell'interesse suscitato anche qui dei Suoi lavori.

Ho notato che uno dei Suoi collaboratori è Paolo Corradini che fu mio compagno di corso a Roma o meglio era l'enfant prodige del mio corso. Sono contento che Egli abbia fatto così bel lavoro sotto la Sua guida eccellente. Mi farà piacere ricordandomi a lui.

Se lei avesse bisogno di qualcosa da qui, la prego di non esitare a scrivermi.

Cordiali saluti,

Maurizio Franco.

Physical Chemistry Laboratory
South Parks Road
Oxford, England

1239A

Ar.

July 29, 1956

Dear Prof. Natta:

Please permit me to present myself to you. I am an American chemist who has been fortunate enough to be awarded a fellowship for travel and study by the Guggenheim foundation. The majority of my time has been spent here at Oxford but I am about to start a five week visit to the continent. At some time during the last week of August or the first week in September I will be visiting at the University of Rome. If it can be arranged without inconvenience to yourself I would very much like to visit your laboratory in the course of the trip. I realize that the timing may well be bad but write in the hope that something can be arranged.

My principal field of interest is in reaction mechanisms and I have also started a program in metal chelate chemistry. I therefore have great interest in your elegant work with the production of isotactic polymers.

Since we will leave Oxford on Aug. 1 my best address will be in Basel where I will be

(over, please)

a guest at the Institute of Organic Chemistry. My hotel address will be:

Blaukreuzhaus
Petersgraben 23
Basel, Switzerland

Incidentally, if I do visit you I am ashamed to confess that I will be forced to depend largely upon your knowledge of English. Our American practise of restricting foreign language study to reading knowledge much to be deplored.

Sincerely,

George S. Hammond
Professor of Chemistry
The Iowa State College

January 22, 1957

Mr. George HAMMON
Rubber and Plastics Division
BATTELLE MEMORIAL INSTITUTE
505 King Avenue
C O L U M B U S 1 - OHIO - U.S.A.

Dear Mr. Hammon,

With reference to your letter of December 13, I wish to inform you that the article appeared on Modern Plastics, December issue, corresponds to a partial and incomplete translation of my paper published on Angewandte Chemie, made without my knowing it. I have no reprints of this article, because "Modern Plastics" did not send tm me them.

With best regards.

Truly yours,

(Giulio Natta)

Battelle Memorial Institute

505 KING AVENUE COLUMBUS 1, OHIO

December 13, 1956

Mr. G. Natta
Institute of Industrial Chemistry
Milan Polytechnic
Milan
Italy

Dear Mr. Natta:

It will be greatly appreciated if you will send me a reprint of "Stereospecific Catalysis and Isotactic Polymers", which appeared in the December 1956 issue of Modern Plastics, pages 169-182, 261-263.

This reprint will be helpful in connection with research at Battelle.

Very truly yours,

H. George Hammon

H. George Hammon
Rubber and Plastics Division

HGH:ejw

Battelle Memorial Institute

505 KING AVENUE COLUMBUS 1, OHIO

November 2, 1956

753 Am

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico di Milano
Milan
Italy

Dear Professor Natta:

Thank you very much for sending me the reprints of your article, "The Structure of Crystalline 1,2 Polybutadiene and of Other Syndyotactic Polymers".

I enjoyed your talk at the Polymer Symposium at Notre Dame University in July.

Sincerely yours,

H. George Hammon

H. George Hammon
Rubber and Plastics Division

HGH:ejw

N

947A

HIGH VOLTAGE ENGINEERING CORPORATION

7 UNIVERSITY ROAD
Near Harvard Square
CAMBRIDGE 38, MASSACHUSETTS

Telephone
UNIVERSITY 4-9400
Cable Address:
HIGHVOLTS, BOSTON

May 25, 1956

Professor Giulio Natta
Instituto di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am indeed pleased to hear that you may be in Cambridge on June 28/29 and am looking forward very much to this opportunity to see you again and to show you our accelerators.

Please do not hesitate to let me know if there is any way in which we may be of assistance to you during your trip.

Very best regards.

Sincerely,

Davis R. Dewey, II
Vice President

DRD:iad

787 A

HIGH VOLTAGE ENGINEERING CORPORATION

7 UNIVERSITY ROAD
Near Harvard Square
CAMBRIDGE 38, MASSACHUSETTS

Telephone
UNIVERSITY 4-9400
Cable Address:
HIGHVOLTS, BOSTON

May 2, 1956

Professor Guilio Natta
University of Milan
Milan, Italy

Dear Professor Natta:

I am very pleased indeed to have had the opportunity to meet you during my recent trip to Italy and most grateful for your kindness in receiving me at your home.

We shall look forward to the chance to see you this summer. In the meantime, we shall make arrangements whenever you wish to receive one of your associates and irradiate samples of polymers of interest to you, so that you may study whatever effects are produced. The machine on which we carry out such studies is a 2-million-volt electron accelerator, and I am enclosing a description of the radiation facility here which also discusses the optimum sizes and shapes for samples. This may be of some assistance to you in planning the experimental work. It is our recommendation that four to five samples of each material to be studied be submitted so that different radiation dosages can be used and a reasonable curve plotted from the resulting data after the samples are returned to you. While we normally charge $30 an hour for the time of this machine, we shall be happy to conduct these preliminary experiments for you at no cost.

* We would, however, appreciate it very much if you could let us know two or three weeks in advance so that the work may be scheduled so as not to conflict with other groups.

Very best wishes and thanks once more for a pleasant visit.

Sincerely,

Davis R. Dewey, II
Vice President

* P.S. I have just now learned that someone is bringing samples from Montecatini in a few days. D

DRD:iad

Carbon Copy to Dr. Emo
Enclosure: Description of Facilities

1075A

Aa

J. A. SAMUEL & CO., INC.

220 BROADWAY
NEW YORK 38

PLATINUM
PALLADIUM IRIDIUM RUTHENIUM RHODIUM OSMIUM

TELEPHONE
CORTLANDT 7-4567
CABLES, JASAMUEL

June 20, 1956

Dr. Giulio Natta
Milan Polytechnical Institute
Milan, Italy

Dear Sir:

We have been reading with great interest about your new catalytic process of the manufacture of polypropylene.

As suppliers of Platinum and Platinum group metals to the oil and petrochemical industry, we are very much interested in knowing whether any metals of the Platinum group are being employed in your process.

We should appreciate receiving a reply at your earliest convenience.

Very truly yours,

J.A. SAMUEL & CO., INC.

Freudenthal

B. Freudenthal

BF:sd

mpmdeu
elio usm ce

BUYERS OF PRECIOUS METAL SCRAP-SWEEPS-CRUDE PLATINUM

"MONTECATINI"
SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

AMMINISTRATORE DELEGATO
Segreteria

Milano, 15/11/56

Egregio Professore,

per incarico del Sig. Ing. Giustiniani

Le rimetto per Sua opportuna conoscenza copia di lettera che egli ha scritto in data 8 novembre 1956 al Sig. Hoeven Vice Presidente della Koppers Company.

Distinti saluti.

allegato

Egr. Sig. Prof. Giulio Natta
Direttore dell'Istituto di Chimica
Industriale del Politecnico di
MILANO

August 3, 1956

Prof. George S. Hammond
Blankkreuzhaus
Petersgoben 23
BASEL - Switzerland

Dear Professor Hammond,

I received your letter of July 29. Till now I cannot be sure to be in Milan during the last week of August or the first week of September, however, you may come to our Institute. If I am away, you may address yourself to some of my assistants, f.i. A. Corradini

With best regards.

Sincerely yours,

(Prof. G. Natta)

269 A

July 30, 1956

Mr. Davis B. Dewey, II
Vice President
High Voltage Engineering Corp.
7 University Road
CAMBRIDGE 38 - Massachussetts

Dear Mr. Dewey,

Many thanks for your kind letter of May 25. I am very sorry not to have been able to visit you during my trip in the United States.

As for the problem of the treatment of our isotactical polymers with your accelerator, the results already achieved are less interesting than those achieved with polyethylene, owing to a remarkable depolymerization.

I do hope to have soon an other opportunity to meet you in Italy or inthe United Syeyes; in the meantime I send you my best regards.

Very sincerely yours,

Giulio Natta

May 15, 1956

Dr.Davis R.Dewey, II
Vice President
High Voltage Engineering Co
7 University Road
CAMBRIDGE 38 - Massachusse

Dear Dr.Dewey,

Many thanks for your very kind letter of May 2 and for the information you give me.

I wish to inform you that I leave Milan during the first days of June, and I shall stay in the United States till the first days of August.

Most probably, I shall come to Cambridge on June 28/29, and I hope to have the opportunity to see your electron accelerator.

With kindest regards and many thanks, I am,

Sincerely yours,

Giulio Natta

324 A

March 14, 1956

Dr. Ing. [illegible] Hochwald
Pharmaceuticals
255 Madison Avenue
NEW YORK 17 - N.Y., U.S.A.

Dear Mr. Hochwald,

we send you, on account of Bonna Co. a copy of the legalized patent "preparation of succinic acid" and the assignment to extend this patent to the United States.

We shall send you a second copy of this patent, on March 16, by air mail.

With best regards,

(Prof. G. Natta)

Encl.

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

DEPARTMENT OF CHEMISTRY

March 6, 1956

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I have heard with great pleasure that you and Mr. Giustiniani intend to come to the United States for the Gordon Research Conferences. Though I am sure I shall see you there, it may be that I will have the pleasure of meeting Mrs. Natta and you even before that, since I am sailing for Europe on March 21 and expect to be in Milano round the beginning of May, presumably May 7.

I will ring you shortly after my arrival and maybe we can meet and have dinner together. Needless to say that I shall be delighted to be of any assistance with regard to your trip to the United States. Please do not hesitate to write me if there is anything specific that I can do for you here.

Looking forward with pleasure to seeing you soon, I remain, with best personal regards,

Sincerely yours,

W. Peter Hohenstein
Professor of Chemistry

WPH:EC

July 30, 1956

Mr. A. S. Proskauer, Editor-in-Chie
Interscience Publishers Inc.
250 Fifth Avenue
NEW YORK 1 - N.Y.- U.S.A.

Dear Mr. Proskauer,

I am sorry that my busy trip through the States did not permi me to write to you before my coming back to Italy.

I wish to thank very much Mrs. Proskauer and you for the very pleasant dinner in your lovely home.

Prof. Mark spoke again with me about your proposal to write a book on the new stereospecific polymerization process. Probably, this matter will be considered next year, if possible.

Hoping to have soon the opportunity to meet you again, I send you my best wishes.

Very sincerely yours,

Giulio Natta

Cable Address: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

May 21, 1956

Professor Guilio Natta
Via Mario Pafano 54
Milano, Italy

Dear Professor Natta:

Professor Mark told us that you will soon arrive in this country and we look forward with great pleasure to seeing you and Mrs. Natta again.

Dr. Mark mentioned to us that he had discussed with you the possibility of your presenting a somewhat rounded up picture of your own ideas and those of other investigators in the field of your special interest during recent years, namely, the Kinetics of Stereospecific Reactions, in the form of a short monograph of 150-200 pages.

We would be happy indeed if you would see your way clear to follow this suggestion and would be only too glad to publish such a book which would certainly find the immediate interest of a wide circle of readers. We are looking forward to discussing details of this matter during your stay in New York.

We further would like to ask you at this time whether you could keep free for us the evening of Friday, June 8th. We would like it very much if you and Dr. Mark would be our guests at a small dinner to which we would invite some of your and our scientific friends who would be interested in meeting you.

Could you please let us know whether this date is convenient for you, in order to make the necessary arrangements.

With best regards,

Sincerely yours

INTERSCIENCE PUBLISHERS, INC.

E. S. Proskauer
Editor-in-Chief

ESP/kd
cc to Dr. Mark

691A

May 30, 1956

Mr. E. S. Proskauer, Editor-in-Chief
Interscience Publishers, Inc.
250 Fifth Avenue, New York 1

Dear Mr. Proskauer,

Manynthanks for your kind letter of May 21, and for your kind invitation to dinner with you and other scientific people the evening of Friday, June 8.

Till now, I cannot assure you to be free on this evening, but I shall give you a definitive reply on my arrival to New York, on June 5. I shall stay in New York till Saturday, June 9, at the Hotel Pierre (5° Avenue);

Awaiting the pleasure to meet you, soon, I send you my best regards.

Sincerely yours,

Giulio Natta

cc to Dr. Mark

MONTECATINI
Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica
dV/ma

PROMEMORIA

Data, 8 Ottobre, 1956

Am.

~~per il Signor~~ **PROMEMORIA**

e.p.c. Sigg. Ing. GIUSTINIANI
Ing. ORSONI
Prof. NATTA

Oggetto: Visita a Ing. Giustiniani esponenti KOPPERS - 8 Ottobre 1956 -

In occasione della visita odierna all'Ing. Giustiniani dei Signori B.J.van der Hoeven e Paul W.Bachman, rispettivamente Vice-Presidente e Direttore Generale della Chemical Division l'uno e Vice-Presidente del Research Department l'altro, presenti pure il Prof. Natta e l'Ing. de Varda, sono stati discussi i seguenti argomenti:

La Koppers all'inizio sembrava interessata prevalentemente al polistirolo isotattico, ritenendo ormai troppo sfruttato il campo del polipropilene sul quale si sono gettate quasi tutte le industrie chimiche americane. Inoltre ritiene il campo delle poliolefine troppo vasto ed intende specializzarsi nella produzione di un numero limitato di polimeri.

Il Prof. Natta ha brevemente accennato alle caratteristiche salienti del polistirolo giudicate assai interessanti dalla Koppers.

E' stato pure chiarito che il nostro procedimento costerà solo poco più di quello impiegato per il polistirolo commerciale, ma le migliorate caratteristiche del nostro prodotto compenseranno largamente questo maggior costo.

I Signori della Koppers ci hanno informati che il prezzo del monomero, a partire dalla primavera del 1957 scenderà da 16 a 12 cents per libbra. Tale riduzione è dovuta alla forte pressione esercitata sui produttori del monomero da parte dei gommai americani.

Questi ultimi avevano infatti minacciato in caso contrario di prodursi il monomero in casa propria.

./.

MONTECATINI
Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

Data,.....

PROMEMORIA

per il Signor.....

Per la Koppers la produzione di stirolo vendute a 12 cents non sembrerebbe più interessante se non sviluppando al massimo la produzione e la vendita in proprio di polistirolo.

Ecco le ragioni principali del loro interessamento al nostro polimero isotattico: non fabbricano su scala industriale l'orto-metilstirolo ma lo hanno prodotto correntemente in laboratorio. Considerano il punto di fusione del nostro polimetilstirolo (300°C) "very interesting".

La forte differenza che si nota negli USA fra prezzo del monomero e prezzo del polimero è probabilmente spiegata dalla forte pressione in senso ribassista esercitata sul prezzo del monomero dall'industria americana della gomma.

Abbiamo chiarito di non essere ancora pronti per trattare una licenza sul polistirolo ma che ritenevamo di poter iniziare queste trattative presumibilmente nel gennaio 1957 e che in tale epoca saremmo stati lieti di sottoporre alla Koppers delle proposte concrete.

Dopo aver visto vari campioni di polipropilene che l'Ing. Giustiniani teneva sul suo tavolo (calzini, raccordi, ecc.) e aver appreso che la Montecatini entrerà in produzione con un impianto della potenzialità di 500 tonn/mese di polipropilene già nei primi mesi dell'anno prossimo, i Signori della Koppers hanno modificato il loro precedente atteggiamento chiedendoci se avevamo già dato negli U.S.A. una o più licenze sul polipropilene e se eravamo eventualmente disposti a trattare con loro anche una licenza per il polipropilene.

L'Ing. Giustiniani ha risposto che in base agli impegni presi e alle trattative in corso oggi non si intravvedeva praticamente una possibilità del genere. Non escludeva però affatto che in gennaio, iniziandosi le trattative con la Koppers per il polistirolo, si potesse rifare il punto della situazione polipropilene e eventualmente dare alla Koppers una risposta in senso favorevole a delle trattative per una licenza sul nostro polipropilene.

Al colloquio è seguita una breve visita dei Signori della Koppers ai Laboratori del Prof. Natta.

(G.dV.)

604 A

CABLE ADDRESS "KOLMARLAB"

SALES OFFICES
NEW YORK
CHICAGO
CINCINNATI
ATLANTA
HOLLYWOOD

Kolmar Laboratories Inc.

PLANTS
MILWAUKEE, WIS.
PORT JERVIS, N. Y.
HOLLYWOOD, CALIF.
BARRIE, ONT., CANADA
SYDNEY, AUSTRALIA
PARIS (VINCENNES) FRANCE
MEXICO, D. F.

EXECUTIVE OFFICES
224 NORTH BROADWAY
MILWAUKEE 2, WISCONSIN

Please reply to - KOLMAR RESEARCH CENTER
2344 No. Oakland Ave.
Milwaukee 11, Wisconsin

April 4, 1956

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
MILANO, ITALY

Dear Dr. Natta:

In reply to your very kind letter of January 21, 1956, I would like to inform you that I will be in Milano sometime around the 2nd and 3rd of May and I hope I can meet you at that time.

Would you please excuse my delay in answering your letter but the date for my departure for my trip to Europe was not certain and I did not want to give you the wrong date for my arrival in Milano.

I am looking forward with pleasure to our meeting and with best regards, I am

Very truly yours,

KOLMAR RESEARCH CENTER

Dr. O. Jacobi
Director of Research

OJ:asu

814 A

June 25, 1956

Mr. Freudenthal
J. A. SAMUEL & CO., INC.
220 Broadway
NEW YORK 38 - U.S.A.

Dear Mr. Freudenthal,

I received your letter of June 22, addressed to Prof. Natta, and I wish to inform you that Prof. Natta at the present is in the United States, and will return to Milan about July 20-22. I am sending copy of your letter to him, but I think it is very difficult he may reply to you before his return to Milan.

With best regards.

Truly yours,

Dr. sa R. Lamma, secretary to
Prof. Natta

880 A

July 30, 1956

Mr. B. Freudenthal
J. A. SAMUEL & CO., INC.
220 Broadway
NEW YORK 38 - N.Y.,

Dear Mr. Freudenthal,

Only on coming back to Milan, after a very busy trip in the United States, I may reply to your letter of June 25.

The metals employed in our process contain metal-organic compounds of the transition metals, as it is indicated in our paper appeared in "Angewandte Chemie", 68, 393 (1956).

At the present, metals of the Platinum group are not employed in our process, because compounds of less expensive metals show very good characteristics.

With besta regards.

Truly yours,

Prof. Giulio Natta

Milan, November 8, 1956.

Dear Mr. van der Hoeven,

I am most grateful to you for your kind letter of October 25th last.

It was indeed a great pleasure for us to see you here and, though your visit was too short, it was nevertheless very agreeable to us since it enabled us to show you what we are doing in the field of mutual interest.

I do hope that on the occasion of your next visit here you will have more time available so that to stay longer among us.

I note that your Company is interested in the studies we are developing on styrene. I have already mentioned to you the possibility that we could start conversations, early next year, for an eventual transfer of our processes and patent rights. I am, however, not yet in a position, as you may well understand, to indicate to you, right now, the exact time when such conversations could be started. It will, anyway, be our care to keep you informed, as soon as possible, in this respect.

The same is, subject to the considerations already known by you, the situation covering polypropylene.

I shall be very glad to inform you, in due time, about my next trip to the States, in order to have the pleasure to meet both you and the Kopper friends.

Please accept, dear Mr. Van der Hoeven my most cordial regards.

Yours sincerely,

(Ing. Piero Giustiniani)

Mr. B.J.C. van der Hoeven
Vice President and General Manager
Koppers Company, Inc.
Pittsburgh 19, PA.

Koppers Co.

October 25, 1956

Dr. Piero Giustiniani
Montecatini
Via F. Turati 18
Milan, Italy

Dear Dr. Giustiniani:

After my return to Pittsburgh, I want to tell you we appreciated very much the opportunity to visit with you a few weeks ago in Milan for a discussion of the situation in the various new polymers your company has developed. After leaving your office, we had a very interesting few hours with Dr. Natta, who was kind enough to entertain Dr. Bachman and myself at lunch where Mrs. Natta joined us. I can assure you that the Milan cuisine was found to be excellent.

Relative to our discussions on the various types of new polystyrenes, we conclude from your remarks that in a matter of two or three months, say by next January, you would be in a position to discuss with us seriously the matter of a license from Montecatini to Koppers on these developments. As I explained to you, it can possibly be of considerable interest to us in view of the present situation of the styrene market in the United States. I can assure you that we shall be only too anxious to proceed with great vigor on further commercial developments on such products if they appear to be interesting and that it undoubtedly would be to the interest of both Koppers and Montecatini to have your laboratory and pilot plant developments worked out and applied to commercial production as rapidly as possible in this country.

You told us that for as far as polypropylene is concerned your present position is that you feel you have made adequate commitments for the United States and that possibly in three months' time you might wish to reconsider this.

We shall appreciate it very much if you will give us an opportunity to meet with you on your next visit in the United States and we shall be delighted to see you in Pittsburgh. Meanwhile, we hope to take the above matter up with you again early next year.

Very truly yours,

B. J. C. van der Hoeven

vdH:JR

Dr. G. Natta
Dr. C. F. Winans

KNIGHT BROTHERS
501 FIFTH AVENUE
NEW YORK 17, N. Y.

CABLE ADDRESS
"CANTATA" NEWYORK

TELEPHONE
MURRAY HILL
7-0844

ORT M. AVERY
RIC E. FRANKE
RNEST H. SCHMIDT, JR.

AIR MAIL

F-22154

June 4, 1956

Prof. G. Natta,
Istituto di Chimica Industriale del Politecnico,
Piazza Leonardo da Vinci, 32,
Milano, Italy.

Dear Sir:-

re U. S. Patents Nos. 1,815,677 and 2,193,464

This is to acknowledge receipt of your letter of May 7, 1956.

We have informed the Department of Justice that you have decided to drop your claim for return of the patents above identified.

Very truly yours,

Knight Bros.

CMA-LZ

copie finisti
Devanto
OSM

KOPPERS COMPANY, INC.

CHEMICAL DIVISION

PITTSBURGH · 19 · PA.

TELEPHONE
EXPRESS 1-3300

B. J. C. VAN DER HOEVEN
VICE PRESIDENT AND GENERAL MANAGER

October 25, 1956

Vari Hoeven
56

541

Dr. G. Natta
Instituto Di Chimica Industriale
Del Politecnico
Milan, Italy

Dear Dr. Natta:

After returning to Pittsburgh, I want to tell you how much Dr. Bachman and I enjoyed meeting with you in Milan a few weeks ago and, particularly, having lunch with you and Mrs. Natta. Our visit at Giannino's is a very happy memory to us. We hope we shall have the opportunity before too long to reciprocate in America when you and Mrs. Natta come for your next visit. I assure you we will be only too glad to make your stay in Pittsburgh and other places in the United States an interesting one.

After our visit and discussions in Dr. Giustiniani's office, I hope we shall have an opportunity to start some cooperative work in polystyrene in the not too distant future, and I trust that, without much doubt, your able laboratory will have developed in a few months' time all of the different ramifications of the new polystyrenes - ready for us to go to work on.

We received an excellent impression of your laboratories and of the evidently very able group of people working in them.

I also want to reiterate my statement at the time of my visit that we shall be pleased to have any of your co-workers and graduates of your school entertain the idea of going to work for Koppers if they might have the desire to move to the United States.

With friendly greetings and compliments to Mrs. Natta,

Sincerely,

B. J. C. van der Hoeven

vdH:JR

AIR MAIL

141 A

KOPPERS COMPANY, INC.

PITTSBURGH · 19 · PA.

RESEARCH DEPARTMENT

PAUL W. BACHMAN
VICE PRESIDENT

Aun

January 26, 1956

visita un
avvenire
programma

Dr. Giûlio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Thank you for your letter of 21 January 1956 indicating difficulties which you are having in attempting to arrange for a visit to Pittsburgh at this time.

We shall be glad to have you visit with us whenever you can. Please feel free to so advise us whenever you can do so.

Yours very truly,

Paul W. Bachman

PWB-mm

AIR MAIL

71 A

KOPPERS COMPANY, INC.

PITTSBURGH · 19 · PA.

RESEARCH DEPARTMENT

PAUL W. BACHMAN

VICE PRESIDENT

January 10, 1956

Prof. Dr. G. Natta
Instituto di Chimica Industriale del Politechnica
Milano, Italy

Dear Professor Natta:

I understand that you intend to visit this country sometime between June and August. In view of our interest in your work and in appreciation of your achievements, we would like to invite you to stay with us in Pittsburgh for a number of days to visit our laboratories, and possibly deliver one or two lectures to our people.

Very truly yours,

Paul W. Bachman

LOGISTICS RESEARCH INC.
P. O. BOX 431
141 S. PACIFIC AVENUE
REDONDO BEACH, CALIFORNIA
OREGON 8-7108

August 31, 1956

Professor Guido Natta
Milan Polytechnic Institute
Mialn, Italy

Dear Professor Natta:

I am taking the liberty to enclose information on our ALWAC III-E General Purpose Digital Computer. Word reaches us here of the extensive and creative work undertaken by yourselves on behalf of research and development both on basic premises and in the interest of industrial progress. In this work computers may be entering into your thinking.

We are manufacturers and distributors of electronic digital computers and hold a major status in the production of this equipment. Extensive installations with application to scientific problems and in the fields of data processing attest to the value and extreme reliability of the ALWAC. Our first European installation proceeds forth this week to be placed in the offices of Autronics AB in Stockholm, Sweden. Simultaneous with this installation, we are commencing active representation in Europe and would deem it a pleasure to have the opportunity to visit and discuss with you the application of digital computers to your work and the work of your associates. Prior to Autronics' computer being placed in operation it will be exhibited at the Office 57 Exposition in Stockholm at the end of September.

I do want in this letter, to extend an invitation to the members of your staff, to visit our computer at this Exposition or at its site in Stockholm. The firm Autronics and the direction of sales representation are under the direction of Mr. Bengt Weibull whose address is: Autronics AB, Skeppargaten 26, Stockholm, Sweden. In the meantime, if I can be of any further assistance to you, please feel free to call upon me. Until I have the pleasure of visiting with you, I am,

Sincerely yours,

LOGISTICS RESEARCH INC.

Raymond B. Whitney

Raymond B. Whitney
Assistant Director of Sales

RBW:jc

Enclosures

M-58

U. S. DEPARTMENT OF COMMERCE

NATIONAL BUREAU OF STANDARDS

ADDRESS REPLY TO
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

July 3, 1956

IN YOUR REPLY
REFER TO FILE NO.
7.1

rich. estratti

AIR MAIL

Professor Giulio Natta
Istituto di Chemica Industriale
del Politecnico
Milano, Italy

Dear Professor Natta:

I would very much appreciate receiving copies of your papers:

"Polymères isotactiques" Makromol. Chemie, 16 213 (1955)
and
"The structure of crystalline 1,2 polybutadiene ..." J. Polymer Sci., 20 251 (1956),

(202) wo

if reprints are available for distribution. I would also like to receive copies of the following papers, if available:

"Studi roentgenografici sulla cristallinità" Simposio Internazionale di Chimica Macromolecolare 1955, p. 695,

"Krystallstructur des isotaktischen Polystyrols" Makromol. Chemie, 16 77 (1955)

"Uber die Kettenstruktur des kristallinen Polyvinylisobutyläthers" Macromol. Chemie, 18-19, 455 (1956)

177 wo

"Crystalline High Polymers of α-Olefins" J. Ame. Chem. Soc., 77 1708 (1955)

Thank you very much.

1/8/56
Inviati fol. ristatt.

Yours sincerely,

Herbert Leaderman

Herbert Leaderman
Rubber Section

April 7, 1956

Dr. O. Jacobi
Director of Research
Kolmar Research Center
2344 No. Oakland Ave.
MILWAUKEE 11, Wisconsin

Dear Dr. Jacobi,

I received your letter of April 4, and I shall be glad to meet you in Milan during the first days of May.

Looking forward to seeing you, I send you my best regards.

Very truly yours,

Giulio Natta

PROF. NATTA c.p.c.

Ken Koppers

Milan, November 8, 1956.

Dear Mr. van der Hoeven,

I am most grateful to you for your kind letter of October 25th last.

It was indeed a great pleasure for us to see you here and, though your visit was too short, it was nevertheless very agreeable to us since it enabled us to show you what we are doing in the field of mutual interest.

I do hope that on the occasion of your next visit here you will have more time available so that to stay longer among us.

I note that your Company is interested in the studies we are developing on styrene. I have already mentioned to you the possibility that we could start conversations, early next year, for an eventual transfer of our processes and patent rights. I am, however, not yet in a position, as you may well understand, to indicate to you, right now, the exact time when such conversations could be started. It will, anyway, be our care to keep you informed, as soon as possible, in this respect.

The same is, subject to the considerations already known by you, the situation covering polypropylene.

I shall be very glad to inform you, in due time, about my next trip to the States, in order to have the pleasure to meet both you and the Kopper friends.

Please accept, dear Mr. Van der Hoeven my most cordial regards.

Yours sincerely,

(Ing. Piero Giustiniani)

Mr. B.J.C. van der Hoeven
Vice President and General Manager
Koppers Company, Inc.
Pittsburgh 19, PA.

Prof Paul Flory

CORNELL UNIVERSITY
DEPARTMENT OF CHEMISTRY
ITHACA, NEW YORK

184 - 6 -
~~1 - 2 - 1~~
191 - 4 - 5 - 6 - 7 - 8 - 9
~~200~~ 201 - 2 - 3 - 4 - 5 - ~~6~~

Oct. 26, 1956

12/11/56

Dr. G. Natta
Istituto di Chimica
Industriale del Politecnico
Milan, Italy

Dear Dr. Natta:

I should greatly appreciate receiving the following reprints if you have any copies available for distribution:

~~177~~ ~~1. G. Natta, J. Polymer Sci., 16, 143 (1955).~~ no

202 2. G. Natta and P. Corradini, J. Polymer Sci., 20, 251 (1956) no

~~184~~ ~~3. G. Natta and P. Corradini, Makromolekulare Chemie, 16, 77 (1955)~~

184 4. G. Natta, Makromolekulare Chemie, 16, 213 (1955)

197 5. G. Natta, I. Bassi and P. Corradini, Makromolekulare Chemie, 18/19, 455 (1956)

199 6. G. Natta, F. Danusso and G. Moraglio, Makromolekulare Chemie, 20, 37 (1956)

201 7. G. Natta, Angewandte Chemie, 68, 393 (1956). no

Sincerely yours,

D. T. Longone

{Flory
{Natta
1 comment
~~gto~~ a Longone

Mi manchano tutti ~~fascicoli~~ 9 Flory
Nacatti ma
ne abbiamo
ancora qualche
copia

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

ADDRESS REPLY TO
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

IN YOUR REPLY
REFER TO FILE NO.
7.6

June 7, 1956

Prof. G. Natta
c/o Chemore Corporation
21 West Street
New York 6, N. Y.

Subject: Visit

Dear Prof. Natta:

Thank you very much for your letter of June 1 and the welcome news that you shall be visiting the United States and also Washington in the near future. We are of course looking forward to having you visit us at the National Bureau of Standards. From conversations with Prof. Eirich, Dr. G. M. Kline understands that you plan to be in Washington on June 22, 23, and 24. We would appreciate knowing if these dates are correct or perhaps your plans have changed. If we can be of any assistance to you in helping you in your travel or in making hotel reservations do not hesitate to call on us.

I also wish to thank you for the very interesting data that you included in your letter. We are looking forward to seeing you here shortly.

With kindest regards.

Sincerely yours,

Leo Mandelkern

Leo Mandelkern
Polymer Structure Section

457 A

U. S. DEPARTMENT OF COMMERCE

NATIONAL BUREAU OF STANDARDS

Ann

ADDRESS REPLY TO
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

IN YOUR REPLY
REFER TO FILE NO.
7.6

March 12, 1956

AIR MAIL

Prof. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

Thank you for your kind letter of March 2. The data that you furnished us will be of great utility to us and we are looking forward to receiving the reprint describing the crystalline polybutadienes. When we have completed our calculations on the fusion of the emulsion polybutadienes we shall be glad to communicate our results to you.

Thank you once again and with kindest regards.

Sincerely yours,

Leo Mandelkern

Leo Mandelkern
Polymer Structure Section

239 A
Am

U. S. DEPARTMENT OF COMMERCE

NATIONAL BUREAU OF STANDARDS

ADDRESS REPLY TO
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

IN YOUR REPLY
REFER TO FILE NO.
7.6

February 9, 1956

AIR MAIL

Professor G. Natta
Instituto di Chimica Industriale
deP Politecnico
Piazza Leonardo da Vinci
32 Milan, Italy

Subject: Polybutadiene

Dear Professor Natta:

I am enclosing a reprint of an article describing the melting behavior of emulsion polymerized polybutadienes which I hope that you will find interesting. I wish to thank you once again for your kindness in previously communicating to us the melting temperature of the all trans 1,4 polybutadiene.

I have read with great interest your recent article in "Die Makromolekure Chemie" on the isotactic and syndyotactique polymers. I wonder whether the unit cell and density of the high melting form of the trans 1,4 polymer has been elucidated as yet. We are very much interested in comparing the theoretically predicted and experimentally observed variation of the degree of crystallinity with temperature of polybutadiene prepared by emulsion polymerization. To accomplish this we of course need the density of the unit cell or the density of the highly crystalline polybutadiene. Any assistance that you could give us in this matter would be greatly appreciated. I wish to thank you once again for your past help.

With kindest regards.

Sincerely yours,

Leo Mandelkern

Leo Mandelkern
Polymer Structure Section

Enclosure

January 21, 1956

Mr. Paul W. Bachman
Vice President
Research Department
Koppers Company, Inc.
PITTSBURGH, 19, Pa., U.S.A.

Dear Mr. Bachman,

Many thanks for your very kind letter of January 10, and for the invitation to visit you in Pittsburgh.

I foresee to come to the U.S.A. to participate to three Gordon Research Conferences, and namely:

"Organic Reaction and Processes" - June 11, 1956

"High Polymers" (July 1-5)

"Elastomers" - July 30 - August 3

As I received also a remarkable number of invitation and I may dis only of relatively short time, because of other engagements, I cannc assure you, till now, to be able to stay with you for a number of days to visit your laboratories and to deliver a lecture to you peo I shall do, however, my best to visit your laboratories at least, a I shall be more precise later.

With best regards,

Very truly yours,

Giulio Natta

OFFICES OF

HAMMOND & LITTELL

350 MADISON AVENUE

NEW YORK 17, NEW YORK

TELEPHONE MURRAY HILL 7-1567
CABLE ADDRESS "MONDTELL"

U. S. AND FOREIGN PATENTS
AND TRADE-MARKS

BY AIR MAIL

April 27, 1956

Prof. Giulio Natta
Via Mario Pagano, 54
Milan, Italy

Dear Prof. Natta:

I have discussed your resin development briefly with Vittorio de Nora while he was here and wish to offer my services and advice to you in connection with your U.S. patent applications if you are having any substantial difficulty with them or if my help and advice is needed.

Many times difficulties in prosecution of U.S. applications are encountered because the applications are prepared without having the prior art and the intricacies of U.S. patent practice in mind, so that in many instances after the application has been on file for some time in this country it is found that distinctions over the prior art are not pointed out in sufficient detail or that the applications do not have sufficient disclosure and examples to support the broad claims which are necessary to give adequate protection. For this reason it is many times desirable to have the application reviewed and amplified by U.S. patent attorneys before filing or to refile the applications as continuations in part of the older application.

If the applications are in good condition according to U.S. practice and are proceeding without difficulty I, of course, do not want to intrude upon the present prosecution.

I hope that you and Mrs. Natta are well and send my regards to both, also from Mrs. Littell.

With best wishes, I am

Yours very truly,

Nelson Littell

NL:EN
Confirmation copy by boat mail

531

May 7, 1956

Mr. Nelson Littell
Offices of Hammond & Littell
350 Madison Avenue
NEW YORK 17, N.Y., U.S.A.

Dear Mr. Littell,

Many thanks for your letter of April 27, and for the very kind offer of your services in connection with my U.S. Patents applications.

As the Montecatini Co. possesses all rights on my patents abroad, I have given your name and address to this Company, in the case that your services are needed by them.

Mrs. Natta and myself send our best regards to Mrs. Littell and you. With best wishes, I am,

Very truly yours,

Giulio Natta

Gild
Ave -

November 12, 1956

Mr. D. T. Longone
Cornell University
Department of Chemistry
ITHACA - NEW YORK - U.S.A.

Dear Mr. Longone,

I received your request, dated October 26, of some reprints of mine.

I wish to inform you that I have sent the reprints directly to Prof. Paul Flory, Director of your Department, as I have only e very little number of these reprints.

With best regards,

Truly yours,

(Prof. G. Natta)

June 1, 1956

Dr. Leo Mandelkern
Polymer Structure Section
U.S. Department of Commerce
National Bureau of Standards
WASHINGTON 25, D.C., U.S.A.

Dear Dr. Mandelkern,

Referring to your letter of March 12, I wish to inform you that we have in the press two other papers on isotactic 1-2 polybutadiene and 1-4 trans-polybutadiene.

The main characteristics of these products are the following:

Enchainment	Melting temp. °C	Period of identity	Monomeric units A	Crystal density
1-2 isotactic	120	6.5	3	0.96
1-2 syndiotactic	154	5.14	2	0.96
1-4 trans	135	4.9	1	1.01

I leave Milan tomorrow to the U.S.A, where I shall stay till June 9 in New York (Hotel Pierre, 5° Avenue). After, I shall attend three Gordon Conferences, on "Organic Reactions" (June 11-15); On "High Polymer (July 2-6), and on "Elastomers" (July 30- August 3).

I shall be in Wilmington from June 18 to 22, and I should have in my program to come also to Washington.

My secretary will send you the reprints of the two new papers, as soon as they will be available.

With best regards.

Sincerely yours,

Giulio Natta

P.S. - You may address an eventual mailto me: c/o Chemore Corporation, 21 West Street, New York 6, N.Y.

246 A

March 2, 1956

Ans.

Mr. Leo Mandelkern
Polymer Structure Section
National Bureau of Standards
WASHINGTON 25, D.C., U.S.A.

Dear Mr. Mandelkern,

Many thanks for your kind letter of February 9 (File No. 7.6) and for the interesting reprint you sent to me. I am sending you, under separate cover, a reprint of my article about the crystalline polybutadiene, published by the "Accademia Nazionale dei Lincei" in Rome.

Frome the structural data reported in this paper, a density of 1.02 may be calculated.

With our recent studies we succeeded in obtaining samples of particularly pure 1-4 trans polybutadiene, for which we observed a melting point a little higher than that I previously wrote to you. I let you know the exacte melting point as soon as our work will be accomplished.

With kindest regards,

Sincerely yours,

Giulio Natta

Curtat ff 191

974 Ans.

Milano, December 22, 1956

x

Professor H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 livingston Street
BROOKLYN 1 - New York - N.Y. -USA

Dear Professor Mark,

I send you enclosed here, the manuscript of a letter to the Editor entitled : "Isophasic volume transitions of some poly(normal-alpha-olefins)", for its publication, as soon as possible, on "Journal of Polymer Science". We are preparing also other articles concerning different isotactic polymers, and I will send you them next weeks.

Rosita joins me in sending to Mimi and you, again, our best wishes.

Very sincerely yours,

Encl.

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

December 12, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, ITALY

Dear Professor Natta,

Please permit me to express how very sorry I was to miss your lecture in Paris. I heard it was extremely interesting and stimulating.

As for the Conference in Prague, I have written to Professor Wichterle and I am enclosing a copy of my letter.

Please accept my kindest personal regards and my best wishes for a very merry Christmas and a happy and healthy New Year. I am, as always,

Yours very sincerely,

H. Mark

H. Mark

HM:bg
encl

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

December 10, 1956

Professor O. Wichterle
Technical University
Technicka 1905
Prague 6, Czechoslovakia

My dear Professor Wichterle,

Please accept my many thanks for your kind letter of November 18, 1956 with all the interesting news about your plans for the Symposium on Macromolecules in Prague in September 1957. Please excuse that I did not answer earlier; the reason is that I was in Europe to attend the International Conference on Plastics in Paris where I had hoped to see you or Professor Vesely.

As far as I am concerned, I agree completely with all your plans for the Symposium in Prague, and I only hope that the present political tensions will not cause a number of scientists to hesitate attending the meeting. Evidently it is of great importance that the first Symposium of our Commission which is held in one of the key cities of Middle Eastern Europe should be a resounding success and that its program, attendance and proceedings should be completely free from any kind of shadow which might fall on them because of unfavorable and unfortunate political disagreements. If you should feel that there is a danger of this kind, it might be better to begin corresponding with a number of prominent colleagues in Europe and America and get their acceptance in principle but leave the date of the Conference still open.

There is no reason why the Symposium could

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

not be held in 1958, if 1957 should not offer the necessary quiet and relaxed atmosphere for a great international conference of this type.

The second point which I would like to mention and which you certainly have still in mind from the correspondence concerning the agenda of the Paris Meeting is that I am going to retate out as Chairman of the Commission and Professor W. H. Melville will be the next Chairman and Professor P. M. Doty the next Secretary. Although I am very deeply obliged to you for the very kind and flattering invitation to give the opening lecture at the meeting in Prague, I would suggest that you rather ask Professor Melville to act as the main introductory speaker. First of all, he is a very prominent polymer chemist, and, secondly, he will be official Chairman of the Commission at the time of the Meeting.

You will understand that it would be a somewhat embarrassing situation for me if I were to give the main lecture, while such a good friend of mine as Harry Melville is the official Chairman of the Commission. I appreciate very much your kindness, but I think I must bow to the actual conditions. I am also sure that Professor Melville will give a lecture better than any one which I could give.

From the same point of view, I would also suggest that you discuss the organization of your Symposium directly with Professor

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

Melville (with copies of your letters to Professors Doty, Letort and Pourbaix), because I do not want to create the impression that I wanted, in any way, to encroach on the prerogatives of my successor. Needless to say that I shall always be very glad to be at your disposal as a personal colleague and friend and I would like to add that I have asked for $400.- to support whatever Symposium our Commission will arrange in 1957. As far as I know this amount has been set aside by Dr. Lampitt for the Symposium in Vienna, July 1957. Since this meeting has been cancelled and is now replaced by your Symposium, I am sure that this amount will be available. In any event, I suggest that you write Professor Letort about it and ask him for his decision.

Please permit me to offer my kindest personal regards and my warm best wishes for a very merry Christmas and a happy New Year.

As always, I am,

Very sincerely yours,

H. Mark

HM:bg

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

November 19, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell' Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Please kindly find enclosed a bibliography on recent advances in condensation polymers which I hope will be of use to you.

With kindest personal regards and best wishes, I am, as always,

Very sincerely yours,

H. Mark

H. Mark.

HM:g
encl

Ringrazia molto Mi scusi se le sono troppo dotti per interessarmi ancora di questi altri rapporti — nati

November 28, 1958

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1 - New York, U.S.A.

Dear Professor Mark;

I am really very sorry I have not been able to see you in Paris but I had to come back to Milan on Sunday evening.

I wish to thank you for your kind letter of November 19 with the bibliography on recent advances in condensation polymers and also for the reports on Atlantic City Congress and on the 2° Symposium on "Ultimate strenght of Polymers".

Hoping to have soon an other opportunity to meet you in some part of the world, I send to Mrs and you my kindest personal regards.

Sincerely yours,

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. S. MESROBIAN, ASSOCIATE DIRECTOR

November 12, 1956

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear friend,

Many thanks for your kind letter of November 3rd, 1956.

I am very much looking forward to seeing you in Paris on November 26th. Unfortunately, I cannot come to Milano as I shall only be able to stay in Paris for 2 days.

Mimi joins me in extending to you and Rosita kindest personal regards and best wishes.

As always, I am,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

del Prof. Marchi

November 1, 1956

Dear Member,

Please permit me to bring you up to date on the plans of the Commission on Macromolecules for the year 1957.

1) The Meetings of the Union and the Congress are going to take place in Paris from July 18 - 24, 1957; I have indicated to the Officers of the Union that our Commission will probably require three sessions of about two and one half hours each, and that it would be good to set aside, in any event, time for a fourth session, if the need should arise. Professor Melville has been so kind to consent to taking over the chairmanship of the Commission and Professor Doty is willing to accept the responsibilities of the secretary for the next four years. All official members have already expressed by letter their approval of this change and we only need verbal confirmation at the Paris Meeting.

2) Our agenda will be essentially:

a) Rotation of official members and national representatives,

b) Discussion of the present state of the work on Nomenclature,

c) Roster of laboratories in which fundamental research on high

polymers is carried out.

d) Business brought up by the members.

3) Symposia during 1957. The Division of Plastics and High Polymers of IUPAC has decided to organize a "Colloquium on Plastics" in Paris on July 25 and 26, 1957 immediately after the IUPAC Conference. As a consequence, our Commission does not plan to have a Symposium on Macromolecules at that time. You will remember that Professor Wichterle extended to the Commission in Rehovoth a very kind invitation to consider sponsoring a Symposium on Macromolecules in Prague sometime in 1957. Since the prior invitations from Austria, England and Germany were all withdrawn in favor of later dates, and since the majority of the official members expressed itself in favor of such a Meeting, I wrote Professor Wichterle that we shall be very glad to accept his kind invitation and that we only would suggest not to organize this Symposium in close proximity to the Paris Meeting, but sometime later during the year.

Professor Wichterle indicated that the second half of September would be the best time from his point of view. He is beginning to get the program organized, and I am sure that we can look forward to this Symposium with great interest and pleasure. I have taken the liberty to express to Professor Wichterle the thanks of the Commission for taking upon himself the burden of organizing this meeting.

4) I shall keep you posted on the progress of the 'Colloquium' in Paris (July 25 - 26). Please kindly let me know if

you want any other points to be included in our agenda for the Meeting of the Commission in Paris, and if you have any special ideas for the Symposium in Prague.

I shall be looking forward to hearing from you. Please accept, as always, my kindest personal regards and my best wishes, and permit me to remain,

Very sincerely yours,

H. Mark

H. Mark, Chairman,
Commission on Macromolecules
of the International Union
of Pure and Applied Chemistry

HM/g

November 16, 1956

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1, NEW YORK, U.S.A.

Caro Professor Mark,

Ho ricevuto la Sua lettera del 1° Novembre relativa al Simposio di Chimica Macromolecolare che si dovrebbe tenere a Praga nel settembre 1957, ed inoltre una lettera del Prof. Wächterle.

Desidero informarLa che ritengo che, affinchè vi possa essere una notevole partecipazione da parte di persone abitanti nell'Europa Occidentale a tale Simposio, è necessario che i Consolati Americani si impegnino esplicitamente a non negare il visto per l'America a quelle persone che si recheranno a Praga per tale Simposio.

Un mio collega, che ha avuto pochi mesi fa un invito di fare una conferenza scientifica in un altro paese al di là della "cortina di ferro", ha chiesto al Consolato Americano se l'accettazione di tale invito poteva pregiudicargli un suo successivo viaggio negli U.S.A.. Il Consolato di è riserbato di rispondergli in proposito, ma poichè il mio collega non ha avuto più nessuna risposta, ha considerato ciò come una risposta negativa.

Ritengo perciò, data anche l'attuale situazione, che sia ora ancor più difficile poter avere da parte delle autorità consolari, delle risposte precise.

Ho voluto informarLa affinchè Ella tenga presente questo nell'organizzazione del Simposio di Chimica Macromolecolare del 1957.

In attesa di vederLa a Parigi il 26, come mi conferma nella Sua lettera del 12 c.m., La prego di gradire i miei migliori saluti.

Giulio Natta

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

Copia

2009

MILANO, September 26, 1956
TELEF. 292.125 - 292.126

Prof. H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brook
99 Livingston Street
BROOKLYN 1, New York, U.S.A.

Dear Professor Mark,

Enclosed here, I am sending you a manuscript entitled:

"Isotactic and Atactic Polystyrene - Some Comparison in Solution"
by F. Danusso and G. Moraglio ~~and myself~~, for its publication on the "Journal of Polymer Science".

Thanking you in advance, I send you my best ~~regards~~ wishes.

G. Natta
~~F. DANUSSO~~

P.S. The manuscript has been sent under separate cover, by ~~regr~~ air mail

~~Encl.~~

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

October 19, 1956

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci,32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of September 27th, 1956, and for the very interesting manuscript, entitled "Isotactic and Atactic Polystyrene - Some Comparisons in Solution", by Ferdinando Danusso and Giovanni Moraglio, which you are submitting for publication in the Journal of Polymer Science.

I am very pleased to inform you the manuscript has been accepted for publication and will appear in as early an issue of the Journal as can possibly be arranged.

With many thanks for the fine contribution and with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff
cc: F. Danusso

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

August 1, 1956

Dear Professor Natta,

May I please kindly take this opportunity to forward to you the programs of the Gordon Research Conferences in Polymers and Textiles which took place in July, and the program for the American Chemical Society Symposium on Block and Graft Copolymers which will take place in Atlantic City on September 18.

With kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:g
encl 3

POLYMERS

C. G. Overberger, Chairman
W. E. Cass, Vice-Chairman

2 July:

H. MARK. Recent Advances in Polymer Chemistry.
C. C. PRICE. Polymerization of dl and ℓ-Propylene Oxide.
H. N. FRIEDLANDER. Role of Organo-Metallics in Heterogeneous Polymerization of Ethylene.
W. B. REYNOLDS. Olefin Polymers from the Phillips Low Pressure Process.

3 July:

G. NATTA. Isotactic Polymers.
F. P. REDDING and E. R. WALTER. Some Aspects of the Crystallinity and Related Properties of High Density Polyethylene and α-olefin Polymers.
E. E. LEWIS. Polyethylenes. Some Condiseration of Synthesis and Structure.

4 July:

G. GEE. Light Scattering in Solutions of Electrically Oriented Macromolecules.
H. BOARDMAN. "Penton" - A New Polyether Derived from 3, 3-bis (chloromethyloxetane).
P. J. FLORY. Some Aspects of Crystallization in Polymers.

5 July:

F. S. DAINTON. Polymerization of Acrylamide in Aqueous Solution.
J. W. WILLIAMS. The Theory and Practice of Sedimentation Analysis.
J. H. FREEMAN. Organic Chemistry of the Phenolformaldehyde Reaction.

6 July:

E. E. LEWIS. Rheology of Polyethylene.
R. G. ARNOLD. Recent Advances in Isocyanate Chemistry.

TEXTILES

G. R. SEIDEL, Chairman

H. A. SECRIST, Vice-Chairman

9 July:

W. A. REEVES and E. KLEIN. Some Recent Advances in the Chemical Transformation of Cotton into New Fibers.

G. J. M. SPROKEL. Electrostatic Properties of Finished Cellulose Acetate Yarns.

10 July:

M. HARRIS and R. SAXON. Chemical Modifications of Wool as Related to Fiber Properties.

L. G. RAY. Textured Filament Yarns.

11 July:

H. MARK. New Polymers as Potential Fiber Formers.

W. WELTZEIN. Finer Chemical Alterations on Polyamide Fibres Made from Caprolactam.

12 July:

S. BACKER. Dimensional Effects in Measurement of Textile Properties.

A. MARZOCCHI and J. K. PARK. Glass Textiles Sizes and Finishes.

13 July:

J. MENKART. Wool Fiber Shape Factors: Effect on Fiber Properties, Processing Behavior and Fabric Properties.

SYMPOSIUM ON BLOCK AND GRAFT COPOLYMERS

ATLANTIC CITY MEETING

R. B. Mesrobian, Chairman

Speaker	Affiliation	Approximate Title
Herman Mark	Polytechnic Institute of Brooklyn	General Principles of Block and Graft Copolymers and Summary of Some European Work
M. Szwarc	New York State College of Forestry	Preparation of Block Copolymers
Robert A. Hayes	Firestone	Graft Copolymerization in Emulsion
A. Chapiro	Paris, France	Graft Copolymerization with Ionization Radiation
R. B. Mesrobian	Polytechnic Institute of Brooklyn and Brookhaven	Graft Copolymerization with Ionization Radiation
Griffin, Rieke and Rubens	Dow Chemical	Graft Copolymers Using Van de Graaff Radiation

938A

August 29, 1956

Am

Prof. H. Mark, Director
Polymer Research Institute
Polytechnic Institute
99 Livingston Street
BROOKLYN 1, NEW YORK, U.S.A.

Dear Professor Mark,

Excuse my lond delay in answering to your kind letter of July 31, that I received in Champduc where I have spent my vacations. Rosita and myself do hope that Mimi and you will come next year to Champoluc after the Paris Congress, to spend some of your European vacations and to see Matterhom and Mt. Rosa from the Italian side.

I thank you very much for having informed me kindly about the impressions left by my lectures. This was owed in great part to your help. Your assistance, during my lectures, was really very useful and repaired not only my deficiencies in the English language but also made more supportable and less heavy my too long speaches.

Rosita joins me in sending to Mimi and you our best regards and wishes.

Very sincerely yours,

Giulio Natta

8587

July 27, 1956

Prof. H. F. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookl
99 Livingston Street
BROOKLYN 1 , NEW York, N.Y., US

Caro Professor Mark,

Mi scusi se non Le ho scritto prima ma, appena ritornato a Milano, sono stato completamente riassorbito dai vari ed importanti problemi del mio Istituto.

Desidero esprimerLe i miei più vivi ringraziamenti per l'interessantissimo viaggio che ha organizzato in modo così perfetto. Serberò un indimenticabile ricordo della mia permanenza negli Stati Uniti, e Le sono infinitamente grato per tutto l'aiuto che mi ha dato.

Rosita ed io speriamo di rivedere la signora Mimi e Lei in Italia l'anno prossimo in occasione del Congresso di Parigi della I.U.P.A.C., ma spero proprio che si presenti qualche altra occasione di rivederLa prima di allora in Europa o negli U.S.A.

La prego di gradire molti cordiali saluti.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

June 11, 1956

Dr. R. F. Boyer
Physical Research Laboratory
The Dow Chemical Company
Midland, Michigan

Dear Dr. Boyer,

Please kindly permit me to take this opportunity to write you about the following matter:

Due to unexpected obligations in Milano, Professor Natta is forced to return to Europe around July 10, and very unfortunately cannot keep the appointments which he has made for the latter part of his trip. He has asked me to excuse him, and to assure you that he will be very glad to keep your kind invitation on his calendar and to postpone its acceptance until his next visit to this country. He expects to return next year, and I shall keep you informed about the date of his next trip, so that Professor Natta can find out when he can hope to have his postponed visit with your organization.

Please accept my kindest personal regards and best wishes. I am, as always,

Very sincerely yours,

H. Mark

HM:g

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

May 23, 1956

Prof. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I would like to take this opportunity to thank you for the two very interesting articles, entitled

"Struttura della catena del polipropilenossido cristallino", by yourself, Paolo Corradini, Gino Dall.

"Sintesi e proprieta di alti polimeri cristallini di alcune alfa-olefine a catena ramificata", by yourself, Piero Pino, Giorgio Mazzanti, Paolo Corradini, Umberto Giannini.

These papers have been accepted for publication in the Journal of Polymer Science. I will immediately have them translated, and they will appear in as early an issue of the Journal as can possibly be arranged.

With many thanks for the fine contribution, and with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark ff

H. Mark

HM:ff

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

May 18, 1956

Prof. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I am very glad to hear that you will be arriving in this country on June 5, and would appreciate it if you could kindly let me know the exact flight you will be coming in on, so that we can meet you at the Airport.

We have reserved a double room for you and Rosita at the Commodore Hotel in New York, and would like to know whether you wish us to reserve anything for Dr. Giustiniani, although I would presume his company has taken care of his reservations, but if not we will be very happy to take care of this for him.

Looking forward to hearing from you, I am, until than, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

May 23, 1956

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1 - NEW YORK - US

Caro Professor Mark,

La ringrazio molto della Sua gentile lettera del 16 Maggio e per la Sua cortesia nell'avermi fissato una camera ad un albergo di New York,

Desidero però informarLa che, per quanto riguarda l'albergo, poichè verrò insieme all'Ing. Giustiniani, andrò con lui all'Hotel Pierre (5° Avenue) dove è già stata fissata la camera.

Come Le ho già scritto in data 17 Maggio, arriveremo a New York con l'aereo "President Select" della Pan American che arriverà alle ore 8 a.m. del giorno 5 Giugno.

Con infiniti ringraziamenti per la Sua squisita cortesia, Le invio i miei più cordiali saluti.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

May 16, 1956

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of May 9th, 1956, together with the copies of your answering letters to Dr. Rose and Dr. Klipstein.

We are all very glad that you will be in this country soon; please let me know the Airline and the flight number, so that we can pick you up at the airport.

I am enclosing a letter which I have received from Dr. Seeger of the Goodyear Tire & Rubber Company, and would suggest that you write to him directly with regard to the details of your visit to his company.

Looking forward to hearing from you, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:ff
enclosure

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

May 10, 1956

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of May 4, 1956, and for the corrections to the Letter to the Editor by Danusso, Moraglio and Talamini. Unfortunately, the paper has already gone to print, so that the corrections cannot be made until the authors receive the galley proofs. Please kindly tell Dr. Danusso to insert any corrections that he wishes too into the galleys when he receives them.

I am very glad that you now have the U.S. Visa, and that you intend to arrive here early in June. Please kindly let me know the exact day, the Air Line and the flight number, because we want, of course, to come and pick you up at the Airport and bring you to your hotel.

Everyone over here is very much looking forward to your visit, and I hope that you and Rosita will have an interesting and enjoyable time.

Thank you for the manuscript; we shall translate it and put it into the Journal as soon as possible.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

May 10, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell' Istituto de Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, ITALY

My dear Professor Natta,

Please kindly find enclosed a most gracious letter from Dr. Burrows of du Pont concerning your eagerly awaited visit to this country.

With warm personal regards and best wishes,

I am,

Very sincerely yours,

H. Mark

H. Mark

HM:g
encl

17 Maggio 1956

Prof. H. Mark, Direttore
Polymer Research Institute
Polytechnic Institute of Brook
99 Livingston Street
Brooklyn 1 - New York - U.S.A

Caro Professor Mark,

Ho ricevuto le Sue due gentilissime lettere del 10 Maggio e La ringrazio vivamente. Le allego copia della mia risposta alla gentile lettera del Dr. Burrows della Dupont.

La ringrazio per il Suo interessamento per i lavori miei e di Danusso e La prego di scusare il disturbo che Le diamo sempre. La settimana prossima Le invierò un'altro lavoro annunciatoLe, sulla diversa struttura delle catene dei polimeri isotattici.

Per quello che riguarda l'arrivo di Rosita e mio in U.S.A., salvo contrattempi, partiremo insieme all'ing. Giustiniani, da Parigi il 4 Giugno alle ore 8 p.m. e arriveremo a New York il 5 Giugno verso le ore 8 a.m. Viaggeremo con l'apparecchio "President special" della Pan American World .

La prego di gradire i miei più cordiali saluti ed ancora infiniti ringraziamenti per le tutte le Sue continue e squisite cortesie.

Giulio Natta

N. 1 All.

4 Maggio 1956

Prof. H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1 - NEW YORK

Caro Professor Mark,

Rosita ed io siamo stati molto lieti di aver visto Mimi e Lei a Milano e speriamo che si presentino presto altre occasioni per altre visite in Italia.

Ho avuto appena ieri comunicazione dal Console Americano a Milano che mi viene concesso il visto per gli U.S.A. e penso che Rosita ed io arriveremo a New York il 5 od il 6 Giugno. Rosita è emozionata all'idea del viaggio che l'aspetta.

La ringrazio ancora sentitamente per tutto il disturbo che si è preso e per il gentile interessamento per quello che riguarda il programma del mio soggiorno negli U.S.A. Poichè verrò con l'Ing. Giustiniani, temo di essere vincolato nel mio viaggio perchè dovrò accompagnarlo in qualche visita. Mi riserbo di confermarLe nei prossimi giorni, il mio programma definitivo.

Le invio il manoscritto, leggermente modificato e completato, di una nota che avevo presentato ai Lincei nel Dicembre scorso, e che penso possa essere pubblicato sul Journal of Polymer Science. Il lavoro è il seguente: "G. Natta, P. Pino, G. Mazzanti, P. Corradini, U. Giannini - Sintesi e proprietà di alti polimeri cristallini di alcune alfa-olefine a catena ramificata".

Le invierò a giorni una seconda nota che riassume e completa tutti i nostri lavori sulla struttura cristallina di alcune poli-alfa-olefine a catena ramificata e sulla forma geometrica delle catene spiralizzate dei polimeri isotattici cristallini.

Grazie e cordiali saluti.

Giulio Natta

N. 1 allegato

4 Maggio 1956

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookly
99 Livingston Street
BROOKLYN, NEW YORK, USA

Caro Professor Mark,

Ho inviato all'Accademia Nazionale dei Lincei una nota preliminare sulla struttura del polipropilenossido e penso di potere, tra pochi giorni, inviare al Journal of Polymer Science, un lavoro più completo e dettagliato su tale argomento.

Di tale nota ho inviato pure copia al Prof. Price, con una lettera di cui Le allego copia.

In attesa di rivederla presto in America, Le invio i miei più cordiali saluti.

Giulio Natta

N. 2 Allegati

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

June 11 1956

Dr. W. Hirschkind
Dow Chemical Company
Box 351
Pittsburg, California

Dear Dr. Hirschkind,

Please kindly permit me to take this opportunity to write you about the following matter:

Due to unexpected obligations in Milano Professor Natta is forced to return to Europe around July 10, and very unfortunately cannot keep the appointments which he has made for the latter part of his trip. He has asked me to excuse him, and to assure you that he will be very glad to keep your kind invitation on his calendar and to postpone his acceptance until his next visit to this country. He expects to return next year, and I shall keep you informed about the date of his next trip, so that Professor Natta can find out when he can hope to have his postponed visit with your organization.

Please accept my kindest personal regards and best wishes. I am, as always,

Very sincerely yours,

H. Mark

HM:g

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

July 31, 1956

Professor Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Everyone who had the great pleasure of meeting you during your recent and highly successful visit to this country was very much impressed and asked me to convey to you their deep admiration.

Your lectures were most interesting and certainly established your leadership in this field of recent developments even over Professor Ziegler and his group.

We all want you and Rosita to come back and hope that you will consider another visit to this country in the not-to-distant future.

Mimi joins me in extending to you and Rosita our kindest personal regards and best wishes.

As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

753 A

Am

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

Danusso for reference risposta

April 28, 1956

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of April 9, 1956, together with the very interesting article, entitled "Second order transition temperature of the polyethylenes", by Ferdinando Danusso, Giovanni Moraglio and Gianpietro Talamini, which you have submitted for publication in the Journal of Polymer Science as a 'letter to the editor'.

I have already translated it and sent it on to the Publishers for printing, and am sure it will appear in as early an issue of the Journal as can possibly be arranged.

With many thanks for your fine contribution, and with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

Trad. a Danusso

690A

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

April 18, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta,

Attached please kindly find two letters which I have received with regard to your coming visit to this country.

If I may, I would suggest that you contact Dr. Rose of the Esso Company, and Dr. Klipstein of the American Cyanamid Company directly.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff
enclosure

602 A

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Am.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

April 3, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Please kindly find attached a reprint order form, which I would very much appreciate your filling out and returning as quickly as possible to Mr. Roger Truelsen, whose address is on the enclosed envelope.

Interscience Publishers Inc.
250 Fifty Avenue
New York

Thanking you for your promptness in this matter, I am, with kindest regards,

Sincerely yours,

F. Fendell

F. Fendell
Secretary to
Prof. H. Mark

richiesti 100 estratti
+ 50 gratuiti -
spedito richiesta il 7.4.56
(via aerea)

May 4, 1956

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
B R O O K L Y N 2 - New York, US.

Dear Professor Mark,

Many thanks for your kind letter of April 23 and for the translation of our letter to the Editor: "Second order transit temperature of the polyethylenes".

I have taken the liberty to do some little modifications on the text, hoping you let them revised, and I send you, enclosed here, the copy so modified.

Thanking you again for your kindness, I send you my kindest personal regards and best wishes.

Very sincerely yours,

Giulio Natta

Encl.

9 Maggio 1956

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brook
99 Livingston Street
B R O O K L Y N 2 - N.Y. - U

Caro Professor Mark,

La ringrazio molto della Sua lettera del 18 aprile con la quale mi inviava le due lettere del Dr. Rose della Esso Company e del Dr. Klipstein dell'American Cyanamid Company.

Seguendo il Sué suggerimento ho risposto direttamente, alle due lettere accettando i due inviti. Le allego copia delle mie risposte.

La informo che avrei deciso di anticipare la mia partenza per gli U.S.A. al 4 Giugno da Parigi per poter fare il viaggio insieme all'Ing. Giustiniani.

In attesa di rivederLa negli U.S.A., Le invio i miei più cordiali saluti.

Giubio Natta

All.

April 9, 1956

Prof. H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookl
99 Livingston Street
B R O O K L Y N 1, New York, U

Dear Professor Mark,

I am sending you, enclosed herewith, the manuscript of the letter to the Editor, about which we talked during your visit in Milan. I shall send to you the other manuscript next days.

Thanking you in advance, I send you my best personal regards.

Very sincerely yours,

Giulio Natta

Encl. :

Manuscript: - "Ferdinando DANUSSO, Giovanni MORAGLIO e Gianpietro TALAMINI - Second order transition temperature of the polyethylenes".

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

March 2?, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

May I take this opportunity to extend to you my sincerest thanks for the most kind and precious reception I received in Milano.

Thanking you again for your generous hospitality, I am, with kindest personal regards and best wishes, as always,

Very sincerely yours,

H. Mark

H. Mark

WW:ff

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

March 12, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, ITALY

My dear Professor Natta,

We have now received all our tickets and we shall leave Paris on March 22 at 19:45 with the Simplon Express to Milano. I don't know at exactly what time this train arrives, but my wife and I shall go directly to the Hotel Principe e Savoia where we have made reservations.

I would be very much obliged to you if you kindly would ask your secretary to check that this reservation is in order.

a prob for 23 inst

I am looking forward with deep pleasure to seeing you soon again. Until that time, please accept my kindest personal regards and best wishes. I remain, as always

Very sincerely yours,

H. Mark

H. Mark

HM:g

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

March 8, 1956

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano

My dear Professor Natta,

Many thanks for your very kind letter of March 2nd; your paper is being rushed through as fast as we possibly can do it. I shall read all the proofs and take care of all the figures.

Please accept my sincerest thanks for the wonderful gold reproduction of the medal that I receiving in Milano through your kindness two years ago.

I am also very much obliged to Dr. Giustiniani for his kind invitation, and I shall be very glad to accept, if we can fit it into our program. My wife will be with me and I should like to be with her as much as I can during the evenings, as I shall always have to leave her alone during the day.

I am not a consultant for Phillips Petroleum Company or for any of their licencees, but I have seen a great deal of their polymer; and of course we have, at our Institute, investigated many Ziegler type and Phillips type polymers, which are now made in this country. These are just the matters on which I should like to report to you and Dr. Giustiniani together with work which is going on in connection with the use of unstable metal compounds such as certain metal chelates, metal carbonyls and complex metal hydrides instead of metal halides in the low pressure synthesis of polyethylene.

Please permit me to offer my many thanks for your kind assistance in the matters of financing my European trip, and please accept my kindest personal regards and best wishes. I look forward with deep pleasure to seeing you soon.

Very sincerely yours,

H. Mark

H. Mark

HM:g

March 2, 1956

Prof. H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1 - New York (USA)

My dear Professor Mark,

I received your kind letter of February 23, and I thank you very deeply for the translation of my paper and for the rapid publication you promised to me.

Ing. Giustiniani will be very glad to have a colloquy with you and wishes even, if possible, to invite you to dinner with him one evening.

The Montecatini and Pirelli Companies, of course, will be glad to give you a contribution for your travel expenses, as they did last years and, I hope, also in a larger way, as I let you have, from the Montecatini a supplementary contribution for the seminarium you will give at the Polytechnic Institute.

I am glad to inform you that, in the occasion of your coming to Milan it will be offered to you a gold reproduction of the medal th you received from the Montecatini.

I shall be very grateful if you let me know if you are a con sulting of the Phillips Petroleum Co., or if you are in close connecti with this Company or with other Companies, having Phillips Licenses. If you are not, I should be interested in knowing it, because, in this ca se, there are probably in Europe people who will be interested in know ing your meaning in the field of the different low pressure polyethyke nes.

Looking forward to seeing Mrs. Mark and you in Milan, I send you my best personal regards and wishes.

Very sincerely yours,

Giulio Natta

337 A

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

Am.

February 23, 1956

Prof. Dr. G. Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Your article is now translated, the figures are all set and I have written a short synopsis for it. It will appear either in the April or May issue of the Journal of Polymer Science with December 5th, 1955 as the date of transmittal to the Editorial Office. Needless to say this article is extremely interesting and of great general importance for the chemistry of macromolecules.

May I, please ask you for another favor in connection with my visits and lectures to the staff members of Italian Industrial Organizations? Since I hope that I shall be able to pass on information of considerable interest I would be very much obliged if these Companies kindly could consider contributing to my traveling expenses, in a way similar to the way in which we do it over here whenever we have the pleasure of having European visitors in our laboratories.

For all lectures at Universities or at the Polytechnic Institute of Milano I would not want to accept any remuneration because I consider it is a special honor and privilege if I am permitted to speak at these Institutions.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

338A

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

Ans.

February 23, 1956

Prof. G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of February 15th, 1956.

I very much appreciate your kind advise with regard to my lectures. I think it would also be very nice if you, Dr. Morandi, Dr. Giustiniani and I could have about one hour together, so that I could report to you on a few special matters, which are not of special interest to the larger group.

As I wrote you in a previous letter your article has already been translated, and we shall try to get it in the April issue of the Journal.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H. Mark/f

HM:ff

H. Mark

322 A

Ann.

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

February 20, 1956

Prof. G. Natta
Instituto Politecnico di Milano
Piazza Leonardo da Vinci 32,
Milano, Italy

My dear Professor Natta,

I would like to take this opportunity to inform you that the manuscript entitled, "On the Structure of Crystalline 1-2 Polybutadiene and of other 'Syndiotactic Polymers'", by yourself and P. Corradini, has received final acceptance for publication in the Journal of Polymer Science.

The article will appear in as early an issue of the Journal as can possibly be arranged. With many thanks for your fine contribution, I am,

Very sincerely yours,

H. Mark ff

H. Mark

HM:ff

February 15, 1956

Professor H.Mark, Director
Polymer Research Institute
Polytechnin Institute of Brooklyn
99 Kivingston Street
B R O O K L Y N 1, New York, U.S

Dear Professor Mark,

Many thanks for your kind letter of February 9,

I should be very grateful if you may let my manuscript published as soon as possible, because I have been informed that at th Congress of the "Fachgruppe Kunstoffe und Kautschuk" der "Gesellsch Deutscher Chemiker" in Bad Nauheim, Prof.G.Bier from Höchst, will pr sent a conference on the structure of polyvinyl chloride. If possibl I would very much like that my paper is published before the confere of Prof.Bier, as also in my paper it is studied the structure of syn diotactical polyvinyl chloride.

As for the subject of your reports, I should propose you t talk, at the Montecatini, about the subjects 1) " Progress in fundan tal polymer research" and 2) "Progress in practical polymer research touching also upon 4) "Macromolecules at surfaces". At the Pirelli y may talk about No.2.

In the seminar at our Institute you may talk about more sp cialized subjects as "New Methods to investigate Macromolecules" and particularly about "Progress in Nuclear Magnetic Resonance" and ever tually "Macromolecules at surfaces". Professor Mesrobian might talk about his work on graft polymers.

Looking forward to seeing you and Prof.Mesrobian, with kin est personal regards and best wishes, I am,

Very sincerely yours,

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

February 9, 1956

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of 2/2/56. I have just received your very interesting manuscript and shall immediately begin to translate it, after which I shall rush it to the Publishers as fast as is possible.

I am enclosing for you the programs of the following Gordon Research Conferences, since I thought that you or Dr. Giustiniani might be interested:

Highpolymers
Textiles
Elastomers
Organic Coatings
Ion Exchange

and also the overall schedule of all 1956 Gordon Conferences.

I am very much looking forward to seeing you and Professor Nasini, and until then, I am, with kindest personal regards and best wishes for yourself, Professor Nasini, Dr. Giustiniani and Dr. Morandi,

Very sincerely yours,

H. Mark

H. Mark

HM:ff
enclosures

GORDON RESEARCH CONFERENCES, AAAS

11 June - 31 August 1956

	Colby Junior College New London, N.H.	New Hampton School New Hampton, N.H.	Kimball Union Academy Meriden, N.H.
June 11-15	Catalysis	Organic Reactions and Processes	Lipids
June 18-22	Petroleum	Metals at High Temperatures	Stream Sanitation
June 25-29	Separation and Purification	Proteins and Nucleic Acids	Nuclear Chemistry
July 2-6	Polymers	Coal	Chemistry and Physics of Isotopes
July 9-13	Textiles	Radiation Chemistry	Solid State Studies in Ceramics
July 16-20	Corrosion	Organic Coatings	Bones and Teeth
July 23-27	Instrumentation	Chemistry and Physics of Metals	Chemistry at Interfaces
July 30-Aug.3	Elastomers	Steroids and Related Natural Products	Ion Exchange
Aug. 6-10	Food and Nutrition	Analytical Chemistry	High Pressure Research
Aug. 13-17	Vitamins and Metabolism	Inorganic Chemistry	Toxicology and Safety Evaluations
Aug. 20-24	Medicinal Chemistry	Statistics in Chemistry and Chemical Engineering	Infra-Red Spectroscopy
Aug. 27-31	Cancer	Adhesion	Glass

Final Program - 14 November 1955.

Colby Junior College
New London, New Hampshire

POLYMERS

C. G. OVERBERGER, Chairman; W. E. CASS, Vice Chairman

2 - 6 July 1956

2 July:

H. MARK. Recent Advances in Polymer Chemistry.

C.C. PRICE. Polymerization of dl and l-Propylene Oxide.

H. N. FRIEDLANDER. Roll of Organo-Metallics in Heterogeneous Polymerization of Ethylene.

K. ZIEGLER. Subject to be Announced.

W. R. REYNOLDS. Olefin Polymers from the Phillips Low Pressure Process.

3 July:

G. NATTA. Isotactic Polymers.

P. GIUSTINIANI. Production and Properties of the New Crystalline Isotactic Polymers.

F. P. REDDING and E. R. WALTER. Some Aspects of the Crystallinity and Related Properties of High Density Polyethylene and α-Olefin Polymers.

4 July:

C. SADRON. Light Scattering in Solutions of Electrically Orientated Macromolecules.

H. BOARDMAN. "Penton" - A New Polyether Derived from 3,3-bis (Chloromethyloxetane)

P. J. FLORY. Some Aspects of Crystallization of Polymers.

5 July:

F. S. DAINTON. Polymerization of Acrylamide in Aqueous Solutions.

J. W. WILLIAMS. The Theory and Practice of Sedimentation Analysis.

H. H. FREEMAN. Organic Chemistry of the Phenol-Formaldehyde Reaction.

6 July:

E. E. LEWIS. Rheology of Polyethylene.

R. G. ARNOLD. Recent Advances in Isocyanate Chemistry.

Colby Junior College
New London, New Hampshire

TEXTILES

G. R. SEIDEL, Chairman; H. A. SECRIST, Vice Chairman

9 - 13 July 1956

9 July:

WILSON A. REEVES and WILLIAM WEAVER. Some Recent Advances in the Chemical Transformation of Cotton into New Fibers.

G. J. M. SPROKEL. Electrostatic Properties of Finished Cellulose Acetate Yarns.

10 July:

MILTON HARRIS and ROBERT SAXON. Chemical Modifications of Wool as Related to Fiber Properties.

L. G. RAY. Textured Filament Yarns.

11 July:

HERMAN MARK. New Polymers as Potential Fiber Formers.

W. WELTZEIN. Subject to be announced.

12 July:

STANLEY PACKER. Dimensional Effects in Measurement of Textile Properties.

ALFRED MARZOCCHI and J. K. PARK. Glass Textile Sizes and Finishes.

13 July:

JOHN MENKART. Wool Fiber Shape Factors: Effect on Fiber Properties, Processing Behavior and Fabric Properties.

New Hampton School
New Hampton. New Hampshire

ORGANIC COATINGS

HARRY BURRELL, Chairman; E. G. BOBALEK, Vice Chairman

16 - 20 July

16 July:

HERMAN B. WAGNER. The Statistical Approach to Coatings Problems; Panel Discussion.

R. L. HAWKINS, Jr., MARK P. MORSE, W. SCHICKNER. Case Histories of Statistics Applied in Coatings.

17 July:

W. K. ASBECK. Adhesion of Organic Coatings to Metal Substrates.

G. G. SWARD. Adhesion of Organic Coatings to Wood Substrates.

18 July:

E. H. MERZ. Microscopy of Heterogeneous Polymeric Systems.

W. R. MOORE. Cellulose derivative - Solvent Interaction.

19 July:

HENRY YUSKA. Alkyd - Amine Resin Interactions.

R. G. MRAZ. Pentaerythritol Reactions in Coatings Resins.

20 July:

F. J. MODIC. Recent Developments in Silicone Coatings.

Colby Junior College
New London, New Hampshire

ELASTOMERS

B.S. BIGGS, Chairman; E.E. Gruber, Vice Chairman
30 July - 3 August 1956

30 July:

S. N. MUCHNICK. Adhesive Bonding of Metals.

D. M. ALSTADT. Fundamentals of Rubber Adhesion.

S. M. OHLBERG and L. E. ALEXANDER. Crystallinity and Orientation in Organosiloxane Polymers - X-ray Diffraction Studies.

E. L. WARRICK. Crystallinity and Orientation in Organosiloxane Polymers - Physical Measurements.

31 July:

G. NATTA. Synthesis by Anionic Polymerization of New Elastomers and Unsaturated Crystalline Polymers.

General discussion of Synthesis and Properties of Cis Polyisoprene and Related Polymers.

W. S. McNATT. Biosynthesis of Rubber.

1 August:

R. M. PIERSON. Formation and Properties of Networks Involving Addition Polymers Having Reactive End Groups.

H. WESTLINNING. Interaction Between Rubbers and Fillers.

G. KRAUS. The Significance of Swelling Equilibria in Carbon Black Reinforced Elastomers.

2 August:

J. W. SELLERS, D. INMAN and M.P. WAGNER. Reinforcement by Fine Particle Silica.

I. AUERBACH, W. C. KURYLA and S. D. GEHMAN. A Diffusity Approach for Studying the Molecular Structure of Elastomers.

L. MULLINS. Recent Developments in Theories of Elastic Behavior and Mechanical Failure of Rubber.

3 August:

K. W. SCOTT. Dynamic Properties of Strained Elastomers.

J. P. BERRY. Stress Relaxation of Natural Rubber Vulcanizates.

Kimball Union Academy
Meriden, New Hampshire

- ION EXCHANGE -

H. G. THOMAS, Chairman; W.J. SLOAN, Vice Chairman

30 July - 3 August

30 July:

O. D. BONNER, G. E. MYERS, Equilibria and Thermodynamics.

R. F. BADDOUR, R. H. BRETTON. Kinetics.

31 July:

M. R. J. WYLLIE, M. J. BERAN. Flow in Packed Beds.

W. J. SLOAN, A. A. BROOKS. Applications.

1 August:

K. S. SPIEGLER, W. F. GRAYDON. Membranes.

H. G. CASSIDY, P. N. CRAIG. Preparation of Exchangers.

2 August:

G. L. GAINES. Inorganic Exchangers.

H. F. WALTON. Separations, Cation Exchange.

F. NELSON, A. PREUSS. Separations, Anion Exchange.

3 August:

H. F. WALTON. Uptake of Organic Bases, Cation Exchanger.

79 A

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 215 FOURTH AVENUE • NEW YORK 3, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

January 16, 1956

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your kind letter of January 10, 1956 concerning a paper which you have submitted for publication in the Journal of Polymer Science, entitled, "Sulla struttura dell'1-2-polibutadiene cristallino e di altri polimeri sindiotattici".

Most unfortunately, we have not received this article; we have made a thorough search of our files - without success. May I ask that you kindly send us another copy of the manuscript; we shall immediately translate it and accept it for publication. Needless to say, all our readers would certainly welcome an article by you.

Looking forward to hearing from you soon, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:CR

90

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

January 16, 1956

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

With regard to my trip to Italy and Israel this coming Spring I am preparing the following reports:

1) "Progress in fundamental polymer research"
This covers essentially
a) Radiation chemistry of polymers
b) New methods to prepare polymers
c) New high melting polymers
It is a lecture without mathematics for organic chemists and engineers.

2) "Progress in practical polymer research"
This covers essentially
a) New Fibers
b) New Rubbers
c) New Plastics
This is a lecture of general interest for a larger circle.

3) "New methods to investigate macromolecules"
This covers essentially
a) Progress in lightscattering
b) Progress in Nuclear Magnetic Resonance
This is a lecture for a group of specialists in the high polymer field.

4) "Macromolecules at surfaces"
This describes progress in the adsorption of high polymers at surfaces and has practical outlook on adhesion, lubrication and detergency. It is a lecture for a specialized group of polymer chemists.

I would very much appreciate it if you could please kindly let me know where you want me to talk about what.

Looking forward to hearing from you, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark/F

H. Mark

HM:ff

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

January 17, 1956

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of January 11th, 1956, with regard to your coming trip to the United States this summer.

As you perhaps noticed from the tentative schedule we submitted to you there were not many Universities or Educational Institutes included in your program, the reason being, that during the month of July things are very quiet in the majority of the Schools. On the other hand July is a very good month to visit Industrial Organizations, since many of these Industrial Laboratories have quite a few interesting experiments going on in the general field of high polymers, experiments quite outside of the work which you are doing, therefore, making it quite unnecessary for you to talk about anything which you do not feel you want to discuss.

Looking forward to hearing from you, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

HMff

H. Mark

100 H

2/2/1955

Professor H. Mark, Director
Polymer Research Institute
Polytecnic Institute of Brooklin
99 Livingston Street
Brooklyn I, New York, U.S.A.

Dear Prof. Mark,

I read in your letter that you did not receive the paper on syndyotactical poly I-2butadiene, I sent you two months ago, the 3 th. December.

I am including now another of the manuscript, hoping that it will be published, as soon as possible, by your kind intervention.

I shall wait you next month in Milan and I shall be happy to talk with you about the many common fields of interest.

Also Pasini will be happy if you pay a visit to him in Turin, and I propose to you to leave from Milan to Torin on Monday 26 afternoon in order to have you in our Institut on Monday morning for a little Seminar.

Please accept my kindest regards.

Very sincerely yours,

G. Natta.

P.S. I send you the manuscript on separate cover

125

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

H. Mark

Ack

January 10, 1956

Professor H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1 , New York, U.S.A.

My dear Professor Mark,

On December 3, I sent to you the paper: Natta e Corradini- "Sulla struttura dell'1-2-polibutadiene cristallino e di altri polimeri sindiotattici".

As I received till now no reply from you on this subject, I beg you to let me know if you received this paper and, if so, if you can publish it on the "Journal of Polymer Science".

With my kindest personal regards, I am,

Very sincerely yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

December 8, 1955

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

My dear Professor Natta,

Many thanks for your very kind letter of December 3rd, 1955.

I am enclosing for your approval a more definite schedule for your trip, next summer, throughout the U.S.A. I would appreciate it very much if you could kindly let me know the exact date that you expect to arrive, and how long you will be able to stay here with us.

I am looking forward to receiving the paper that you are submitting for publication in the Journal of Polymer Science, and let me at this time assure you, that it is no trouble at all to have it translated into English.

Please accept my kindest personal regards and best wishes. As always, I am,

Very sincerely yours,

H Mark/ff

H. Mark

HM:ff

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
C. G. OVERBERGER, ASSOCIATE DIRECTOR

Professor G. Natta

Tentative Schedule

June 16 or 17:	Arrival in U.S.A.
June 18-22:	New York; Polytechnic Institute Philadelphia; Rohm & Haas Wilmington; Dupont Washington; National Bureau of Standards Washington; Visiting
June 25-29:	New York; Columbia New York; Bell Telephone New York; Esso New York; Princeton Boston; Cabot
July 2-6:	Gordon Research Conference
July 9-13:	Springfield; Monsanto Akron; Goodyear Whiting; Standard Oil of Indiana
July 16-20:	Bartlesville; Phillips Petroleum Emeryville; Shell Development St. Louis; Monsanto Richmond; California Research
July 23-Aug. 1:	Vacation at the West Coast

750 A

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

Ack.

25 April 1956

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Having finally returned to New York I should like to thank you again for your very kind hospitality during my visit in Milan. It was a great pleasure to visit your laboratories and meet with your excellent research associates. Looking forward to seeing you on your visit to this country, I remain

Yours very sincerely,

Robert B. Mesrobian
Professor of Chemistry

RBM:MT

469 A

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

13 March 1956

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your kind letter of 7 March. I shall be looking forward to our meeting and will be happy to discuss the subject of grafted copolymers.

With kindest regards, I am

Yours very sincerely,

Robert B. Mesrobian
Professor of Chemistry

RBM:MT

384 A

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

1 March 1956

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Many thanks for your letter of 7 February confirming my visit with you and Professor Mark on the 26th and 27th of March. I plan to arrive in Milan from Paris on the evening of 25 March, and will be staying at the Hotel Principe et Savoie where I believe Professor Mark will also be staying.

On the afternoon of 27 March I shall have to leave Milan for Ludwigshafen. With many thanks and looking forward to seeing you, I remain

Yours very sincerely,

Robert B. Mesrobian

Robert B. Mesrobian
Professor of Chemistry

RBM:MT

176 A

Am.

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

1 February 1956

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Professor Mark has recently informed me that he will be visiting with you during the interval March 21-27. Since I shall also be attending the Symposium meeting in Israel, Professor Mark suggested that I might accompany him in his meetings with you on Monday and Tuesday, March 26th and 27th. If this meets with your approval I would be most grateful for the opportunity to visit with you and to see you again.

Yours very sincerely,

Robert B. Mesrobian

Robert B. Mesrobian
Professor of Chemistry

RBM:MT

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CHEMISTRY
CAMBRIDGE 39, MASSACHUSETTS

January 27, 1956

Professor Giulio Natta
Instituto di Chimica Industriele
Politechico di Milano
Milano, Italy

Dear Professor Natta:

Over a month ago we mailed a sample of our very best Alfin polystyrene. It does not have the same properties as your product - much to our regret - but I did not expect a real similarity. I should have written earlier but I left immediately for the South and West Coast of this country and have been gone for some time. Please excuse my inexcusable delay.

I hear that you plan to come to the States this summer, and am delighted over the prospect of meeting you personally. Would you be interested in giving a lecture here? A special short course im polymerization and new catalysts is being given at the Institute from July 16 through July 27. The people who attend are graduates and technical and professional personnel from industry and Government. I am sure they would be glad to hear you. I have been told that your English sounds more like Italian and that you might feel reluctant to talk to an audience that would vastly prefer English to Italian, French or German. I think, however, that I might arrange to have Dr. Schoenberg (whom Dr. Sani knows) on hand to help out, particularly in the question period.

Please let me know by return air mail if you are at all interested. I will have to take up the matter with the authorities here, but feel confident that something can be done if you will let me know your ideas on the matter.

With very kindest regards,

Sincerely yours,

Avery A. Morton

Avery A. Morton

AAM/MC

116 1

February 7, 1956

Ann

Professor Robert B. Mesrobian
Associate Director
Polymer Research Institute
Polytechnic Institute of Brook
99 Livingston Street
BROOKLYN 1 = New York - U.S.A.

Dear Professor Mesrobian,

I received your kind letter of February 1, and I shall be very happy to meet you in Milan together with Professor Mark. As a seminar will be held in our Institute, during Prof. Mark's visit, I wish to extend to you our cordial invitation to partecipate to this seminar.

Looking forward to seeing you in Milan next month, I send you my best regards,

Very sincerely yours,

G. Natta

March 7, 1956

Professor Robert B. Mesrobian
Associate Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1 , New York

Dear Professor Mesrobian,

I received your letter of March 1, and I am very glad to know that you will accept our invitation to partecipate to the seminarium to be held at the Polytechnic.

If you wish to develop the subject of grafted polymers, it would be very interesting to us. The date could be March 26 in the afternoon, or, better, March 27 in the morning. We could give you a contribution, about Lit. 60.000, for your staying expenses in Milan.

Looking forward to seeing you in Milan, I send you my best personal regards.

Very sincerely yours,

Giulio Natta

738A

Ans.

CORNELL UNIVERSITY
DEPARTMENT OF CHEMISTRY
ITHACA, NEW YORK

April 25, 1956

Dr. G. Natta
Instituto di Chimica Industriale del Politecnico
Milano
Italy

Dear Sir:

In a few weeks I will join the staff of the Division of Chemistry, Atomic Energy of Canada Limited, Chalk River, Ontario. There I expect to begin a program to study radiation effects in High Polymers. Because of the tremendous significance of your recent work on isotactical polymers I feel that important discoveries could be obtained by radiation studies on these systems. I am very interested in knowing whether you have samples of these polymers available for fundamental research and what procedure is necessary to obtain them.

At the present I am completing a two year term of post-doctoral research with Professor Debye but will be leaving Cornell on June 15. If you are unable to answer this letter before then, I would appreciate having you send your answer to the address indicated at Chalk River.

Yours truly,

W. H. McFadden.

W. H. McFadden
Research Associate

WHM/je

[illegible]

Rien. Il lui est
arrivé seulement de pouvoir
de discuter avec beaucoup
hum ~~les avait~~ richesse avec le
~~compagnie~~ le Marchand
du bois et estimant
dès lors ~~mai~~ un
bravo. complisi
de polemica esistente
per il bosco e affetto
della sorveglianza.
Il Sig. Marchand
più affetto numerose
in tale campo ~~[illegible]~~
se
Il personale ne
conosce otto: il
[illegible] e impotenza
fatica delle cose
e che è bravo
~~[illegible]~~
~~[illegible]~~
~~[illegible]~~
tuttavia nel caso di
polemica contenere
atteni a certamente
superare i processi
di deplorevole
[illegible] ~~[illegible]~~
~~[illegible]~~

OUVRIR ICI / HIER OPENEN

AEROGRAMME

LUCHTPOSTBLAD

25 C NEDERLAND

14. 3. 1956

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Milano, Italia

PAR AVION / PER LUCHTPOST

EXPÉDITEUR/AFZENDER

Dr. T. A. Orofino
Laboratory for Inorganic and Physical Chemistry
Hugo de Grootstraat 27
Leiden, Holland

NIETS INSLUITEN!

INDIEN ZULKS TOCH GESCHIEDT, DAN WORDT DEZE BRIEF PER BOOT / TREIN VERZONDEN

Laboratory for Inorganic
and Physical Chemistry
Hugo de Grootstraat 27
Leiden, Holland
September 25, 1956

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Milano, Italia

Dear Dr. Natta:

I am a former student of Prof. Paul J. Flory of Cornell University, U.S.A., having received my PhD. degree in physical chemistry from him this summer. Since then, I have been engaged in postdoctoral research at the University of Leiden under the direction of Prof. J. J. Hermans.

Prof. Flory has suggested, and I certainly agree, that I should try to visit your laboratory when I am in Italy. As my wife and I are contemplating a trip to your country this fall, probably in the early part of October, I should like to take this opportunity to request permission to visit you and your research institute in Milan at that time.

Yours very truly,

Thomas A. Orofino

Thomas A. Orofino

156 bis A

THE SYSTEM OF PRACTICAL COOPERATION BETWEEN SCIENCE AND INDUSTRY
FOUNDED BY ROBERT KENNEDY DUNCAN

Ann.

MELLON INSTITUTE OF INDUSTRIAL RESEARCH

UNIVERSITY OF PITTSBURGH

PITTSBURGH 13, PA.

January 30, 1956

Professor G. Natta,
Instituto di Chimica Industriale del Politecnico,
Milano,
Italy.

Dear Professor Natta:

Thank you very much for the reprints which you recently sent me. We do a certain amount of work with crystalline polymers and are interested in the materials you describe.

I look forward to hearing your talk at the Gordon Research Conference on Elastomers.

Yours very truly,

Stanley Ohlberg
FELLOW
Department of Research in Chemical Physics

Stanley Ohlberg:mlc

Enc.

153 A

February 15, 1956

Professor Avery A. Morton
Massachussetts Institute of Technol
Technology - Dept. of Chemistry
CAMBRIDGE 39, Massachussets

Dear Professor Morton,

Many thanks for the sample of the Alfin polystyrene you kindly mailed to me some time ago. Some samples prepared by us following your process had already shown that they differ from isotactical polystyrene, but we doubted whether we succeeded in preparing good samples. Therefore, I thank you very much for sending the samples, with which we confirmed our results.

In the butadiene polymerization, using our catalysts, we prepared some highly crystalline products, and so, we have been able to determine the structure of 1-4 trans polybutadiene and of 1-2 syndiotactical polybutadiene. I am sending you, under separate cover, a reprint of may paper concerning the last product.

I thank you deeply for your kind invitation to give a lecture at your Institute. As for me, I should be very glad to be able to come to Cambridge, but I doubt I shall not have the possibility, because I have to go to California during the week from July 23 to 27. In addition after the Gordon Research Conference on High Polymers, I shall visit several laboratories of chemical Companies. However, I assure you I shall do my best to come to Cambridge in a day during the week from July 16 to 20, and, as soon as I settle my definitive travel schedule, I shall write to you again.

With very kindest regards,

Very truly yours,

G. Natta

June 4, 1956

Mr. W. H. McFadden
Research Associate
Department of Chemistry
Cornell University
ITHACA = NEW YORK = USA

Dear Mr. McFadden,

With reference to your letter of April 25, I wish to inform you that already many peoples requested to the Montecatini samples of our new products to study the radiation effects on them. The Montecatini Co? that possesses all the rights on my patents, carried out several researches on this field.

As for me, I believe that the importance of the irradiation has been emphasized too much, as, in the case of polymers having tertiary carbon atoms, the depolymerization processes are remarkable.

With best regards.

Yours truly,

(f. Prof. G. Natta)

768
Am.

21st December 1956

To the Modern Plastics
575 Madison Avenue
NEW YORK 22 - N.Y. - U.S.A.

Dear Sirs,

In my letter of September 19, 1956, concerning the publication on your review of my article appeared on "Angewandte Chemie", I let you know that I should have sent you an article more completed, as I did not like that the original paper was translated and published in the actual form. I had in mind, in effect, to send you the text of the lecture I presented last November in Paris, to the 29th Congress of Industrial Chemistry, that now is ready to be published.

I was really surprised to see that you have published in the December issue of "Modern Plastics" a literal translation of my article without the parts concerning the crystalline structure of polymers.

I was surprised for the following reasons :

1) You published this article without my permission;

2) You did not send to me the proofs so that I may correct them. In fact, some periods have been translated in such a manner that their primitive meaning is altered.

I do not know the American uses, but in Europe such a thing should not allowed.

I received many requests also from the United States for reprints of this article, but I do not like to send reprints of a incomplete and uncorrect paper. I beg you, therefore, to let me know how you are disposed to repair what you did, for instance, publishing, at least as reprints, the complete translation and sending to me if possil 200-300 reprints of the correct translation, so that I may send them to the people who requested them to me.

Awaiting your kind reply, I send you my best regards.

Truly yours,

(Prof. G. Natta)

701

July 30, 1956

Prof. Avery A. Morton
Department of Chemistry
Massachussetts Institute
of Technology
CAMBRIDGE 39 - Massachussetts

Dear Professor Morton,

I returned just now to Milan from my very pleasant trip in your country.

The visit to your Institute has been very interesting for me and I enjoyed very much of your discussions.

I send you, under separate cover, a complete copy of reprints of our papers on isotactical polymers.

I hope to have soon an other opportunity to see you and to discuss some problems of mutual interest.

With best regards, I am,

Very sincerely yours,

Giulio Natta

1/8/56

inviati estratti fol. sot.
172 - 3 - 6 - 7 - 8 - 9
181 - 4 - 5 - 6
190 - 1 - 4 - 5 - 6 - 7 - 8 - 9
201 - 2

FORM 8017

AIR MAIL

209 A

Lem

Naugatuck Chemical

Division of United States Rubber Company

Naugatuck, Connecticut

DEVELOPMENT DEPARTMENT

February 8, 1956

Professor Dr. G. Natta
Institute di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta:

You provided one of the high points of our European trip with your delicious luncheon and stimulating visit to your laboratories. I have already sent a note of thanks to Mrs. Natta, but I also wanted to tell you, on behalf of Drs. Jordan, Tierney and myself, how much we enjoyed the day.

Professionally, you are to be congratulated for your developments in the polymerization field. We are very interested in your new processes and will look forward to the day when you and Montecatini can release more details about your work and give your ideas about possible license or "know-how" agreements.

Please let us know if we can provide additional quantities of isoprene or other monomers for your work. We will also be very glad to offer the services of our laboratories in evaluating any of your experimental elastomers or plastics. Enclosed is a booklet which describes the Naugatuck Chemical and its products. I hope you will find it of interest.

Personally, I would like to reiterate my invitation for you and Mrs. Natta (and your party) to visit at our home in Woodbridge, Connecticut (near New Haven and Yale) when you come to the U.S.A. this summer. We will be very happy to entertain you for a day or for a weekend as your schedule permits. If there is any possibility please let me know in advance and I will be glad to make all necessary arrangements to meet you in New York or New Haven.

I hope our meeting will lead to further associations for our mutual benefit. Again, many thanks for a pleasant and stimulating day.

Very truly yours,

NAUGATUCK CHEMICAL

D L Schoene

D. L. Schoene
Director
Research and Development

DLS:mw
Attach.

193

February 22, 1956

Dr. D. L. Schoene, Director
Research and Development
Naugatuck Chemical
Division of U.S. Rubber Company
N A U G A T U C K, Connecticut

Dear Dr. Schoene,

Many thanks for your very kind letter of February 8 and for the booklet concerning the Naugatuck Chemical and its products.

I have been very pleased to have met you and Mrs. Jordan and Tierney, and I hope to have soon the opportunity to meet you again here on in the U.S.A.

Many thanks also from Mrs. Natta, who will write to you herself, for your very kind invitation to visit at your home in Woodbridge.

I wish to inform you that our researches in the elastomers field are continuing and they led to further very interesting results as we obtained rubbers with very slow hysteresis and without isoprene. I hope that the Montecatini Co., in about two months, will be ready to begin negotiations about possible license or "know-how" agreements.

Looking forward to seeing you soon, I send you my best personal regards.

Very sincerely yours,

Giulio Natta

H90 Am

Laboratory for Inorganic
and Physical Chemistry
Hugo de Grootstraat 27
Leiden, Holland
October 26, 1956

Prof. G. Natta
Istituto di Chimica Industriale del
Politecnico
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Prof. Natta:

Thank you for your letter of October 5.

Unfortunately, I was unable to visit your laboratory during my recent visit to Italy. Your hospitality is nevertheless appreciated. Perhaps I shall be able to arrange a trip to Milano at a later date.

Yours very truly,

Thomas A. Orofino

Thomas A. Orofino

Natta
Ann.

POLYMER CONFERENCE

July 2-6, 1956 Colby Junior College, New London, N. H.

C. G. Overberger - Chairman
W. E. Cass - Vice-Chairman

July 2

H. Mark Polytechnic Institute of Brooklyn.	- Recent Advances in Polymer Chemistry
C. C. Price University of Pennsylvania	- Polymerization of dl and ℓ-Propylene Oxide
H. N. Friedlander Standard Oil of Indiana	- Roll of Organo-Metallics in Heterogeneous Polymerization of Ethylene
K. Ziegler Max Planch Institute (Manheim)	- Tentative
W. B. Reynolds Phillips Petroleum Company	- Olefin Polymers from the Phillips Low Pressure Process

July 3

G. Natta Polytechnic Institute of Milan	- Isotactic Polymers
P. Giustiniani Montecatini Company	- Production and Properties of the New Crystalline Isotactic Polymers
F. P. Redding and E. R. Walter Union Carbide & Carbon Company	- Some Aspects of the Crystallinity and Related Properties of High Density Polyethylene and α-olefin Polymers

July 4

C. Sadron Research Institute of Strasbourg	- Title to be announced
H. Boardman Hercules Powder Company	- "Penton"-A New Polyether Derived from 3,3-bis(chloromethyloxetane)
P. J. Flory Cornell University	- Some Aspects of Crystallization in Polymers

July 5

F. S. Dainton University of Leeds	- Polymerization of Acrylamide in Aqueous Solution
J. W. Williams University of Wisconsin	- The Theory and Practice of Sedimentation Analysis
J. H. Freeman Westinghouse Electric Corporation	- Organic Chemistry of the Phenolformaldehyde Reaction

July 6

E. E. Lewis DuPont Co. (Polychemicals Dept.)	- Rheology of Polyethylene
R. G. Arnold DuPont Co. (Jackson Labs.)	- Recent Advances in Isocyanate Chemistry

Armando Dal Molin
MUSIC TYPOGRAPHERS

250 WEST 49th STREET, NEW YORK 19, N. Y. PLAZA 7-4854

New York 6/6/1956

Prof. Giulio Natta
Hotel Pierre
N.Y.C.

Egr. Prof.

ho letto sui giornali del Suo arrivo a New York e sarei molto lieto di rivederLa o aveLa come ospite a pranzo qui" a N.Y. o a casa, se non e" troppo occupato.

Non so se Lei si ricorda di me: mi laureai con Lei nel 1941 e lavorai come assistente di Mattei e per il C.N.R. l'anno seguente. Al mio ritorno dalla guerra venni qui' con un mio brevetto per una macchina da scrivere la musica e da allora mi sono fatto pian piano strada. Sfortunatamente ho lasciata L'ing. chimica in favore della elettromeccanica. Ritornai in Italia 2 anni fa' e venni al Politecnico, ma era estate e non mi riusci' di vedere nessuno che conoscevo. Sono fiero del Suo successo e sarei lieto di avere notizie fresche di come vanno le cose al mio vecchio "Poli"! Telefoni pure durante le ore di ufficio.

Saluti cordiali

Armando Dal Molin

A. Dal Molin

telefono

JEROME V. POWELL
EUROPEAN REPRESENTATIVE
ORONITE CHEMICAL COMPANY
OF SAN FRANCISCO, CALIFORNIA

36, AVENUE WILLIAM-FAVRE
GENEVA, SWITZERLAND

TELEPHONE: 35 17 35
CABLES: OROPOWELL GENEVA

Genève, le 8 octobre 1956

Prof. Dr.G. Natta
Instituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Cher Professeur,

Monsieur Shiffler et ses associés de California Research Corporation ont beaucoup regretté qu'il vous ait été impossible de prolonger votre séjour aux Etats-Unis et visiter San Francisco et la Californie.

Les sujets dont nous avons discuté à l'occasion de ma dernière visite à Milan sont d'un grand intérêt pour nous, et nous espérons pouvoir les développer dans d'autres discussions avec vous. Nous espérons aussi qu'au cours de votre prochain voyage en Amérique vous pourrez disposer de quelques jours pour visiter la Californie, ce qui vous intéressera ainsi que Madame Natta, nous en sommes sûrs.

Monsieur Edeleanu, qui jusqu'à une date récente faisait partie de l'organization de Monsieur Shiffler à la California Research Corporation à San Francisco, est maintenant à Genève. Je quitte Genève dans quelques jours pour les Etats-Unis et ne pourrai vous voir avant la fin de l'année. Cependant j'ai suggéré à M. Edeleanu de se rendre en Italie vers fin Octobre afin de vous rendre visite et de discuter avec vous d'autres problèmes qui pourraient être intéressants. Pour le moment, M. Edeleanu compte partir le 29 octobre.* Nous serions heureux de savoir quel jour vous conviendrait le mieux pour recevoir M. Edeleanu.

Monsieur Shiffler vous envoie son meilleur souvenir, et je vous prie de croire, cher Professeur, à l'expression de mes sentiments les meilleurs.

* ou une ou deux semaines plus tard.

J.V. Powell

J.V. Powell

JVP:rm

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

DEPARTMENT OF CHEMISTRY

November 27, 1956

783

Professor Giulio Natta
Instituto De Chimica Industriale
Del Politechnico
Piazza Leonardo Da Vinci, 32
Milan, Italy

Dear Professor Natta:

One of my graduate students (Francis W. Michelotti) has expressed a desire to consider post-doctoral work with you in your laboratory at the Polytechnic Institute of Milano.

Mr. Michelotti will be completing his PhD thesis in June, 1957. His thesis work has been largely in organic chemistry and has concerned itself with the preparation of a number of vinyl hetercyclic monomers and their polymers and copolymers.

He is a very good man and one of the best students I have had for some time. Both he and his wife speak Italian which would make it easier for him. He is interested in such details as financial remuneration, living expenses, etc. At the present time they have no children.

If you are interested, I will have him contact you directly.

With kindest personal regards,

Sincerely,

C. G. Overberger

C. G. Overberger, Head
Department of Chemistry

cgo-h
airmail

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

DEPARTMENT OF CHEMISTRY

November 7, 1956

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci 32, Milan
Italy

Dear Professor Natta:

Thank you very much for your letter of October 27. Dr. Parks, Director of the Gordon Conferences, has recently spoken to me and informed me that he had not sent your check for traveling expenses which I had agreed to in my initial invitation.

We have taken care of the expenses for rooms and meals when you and Mrs. Natta were at Colby College. There is no charge. By now, I presume that you will have received the check. I have asked Dr. Parks to send it directly to you. I am sorry for this delay.

I hope to see you during the IUPAC Congress in Paris this next summer. Please also convey my kindest regards to your charming wife.

With kindest regards,

Sincerely,

C. G. Overberger

C. G. Overberger, Head (h)
Department of Chemistry

cgo-h

CC - Dr. Parks

1216 A

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

TRIANGLE 5-6412

July 24, 1956

Dr. G. Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

I want to thank you personally for your participation as a speaker in the Gordon Research conferences on Polymers. We are particularly glad that you were able to make the trip from abroad and see old friends, and become acquainted with so many of our Polymer people. I have heard some very complimentary words about your talk. Kindly convey my very best regards to your charming wife. I hope to see you in Italy in the near future.

With kindest regards,

Sincerely,

C. G. Overberger, Head
Department of Chemistry

CGO:eh

92A

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

January 19, 1956

Speakers
Gordon Research Conference Polymer Week

Gentlemen:

Enclosed you will find a copy of the Gordon Research Conference program for the Polymer Week in the summer of 1956.

I am very grateful for your participation.

With kindest regards,

Sincerely,

C. G. Overberger
Head, Department of Chemistry
Chairman, Gordon Research Conference
on Polymers

CGO:DL
Encl.

POLYMER CONFERENCE

July 2-6, 1956 Colby Junior College, New London, N.H.

C.G.Overberger - Chairman
W.E.Cass - Vice-Chairman

July 2

H. Mark Poly. Inst. of Bklyn.	- Recent Advances in Polymer Chemistry
C.C.Price Univ. of Penna.	- Polymerization of dl and l-Propylene Oxide
H.N.Friedlander Standard Oil of Indiana	- Roll of Organo-Metallics in Heterogeneous Polymerization of Ethylene
K. Ziegler Max Planck Inst. (Mannheim)	- Tentative
W. B. Reynolds Phillips Petroleum Co.	- Olefin Polymers from the Phillips Low Pressure Process

July 3

G. Natta Poly.Inst. of Milan	- Isotactic Polymers
P. Giustiniani Montecatini Company	- Production and Properties of the New Crystalline Isotactic Polymers
F.P.Redding and E.R.Walter Union Carbide & Carbon Co.	- Some Aspects of the Crystallinity and Related Properties of High Density Polyethylene and α-olefin Polymers

July 4

C. Sadron Res.Inst. of Strasbourg	- Title to be announced
H. Boardman Hercules Powder Company	- "Penton"- A New Polyether Derived from 3,3-bis(chloromethyloxetane)
P.J.Flory Cornell University	- Some Aspects of Crystallization in Polymers

POLYMER CONFERENCE #2

July 5

F.S.Dainton University of Leeds	- Polymerization of Acrylamide in Aqueous Solution
J.W.Williams University of Wisconsin	- The Theory and Practice of Sedimentation Analysis
J.H.Freeman Westinghouse Electric Corp.	- Organic Chemistry of the Phenol-formaldehyde Reaction

July 6

E. E. Lewis DuPont Co.(Polychemicals Department)	- Rheology of Polyethylene
R.G. Arnold DuPont Co.(Jackson Labs.)	- Recent Advances in Isocyanate Chemistry

PETROLEUM REFINER

Specialized for Refining, Natural Gasoline and Petrochemicals

P. O. Box 2608, Houston 1, Texas

November 20, 1956

Dr. Giullio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32 - Milano

Dear Dr. Natta:

Thank you for your November 14th letter regarding our article "Compare Polyethylene Processes Competition". Your remarks will certainly help us in the revising of this article and we do appreciate the time you have taken to review it for us.

We are still awaiting word from you regarding the polypropylene article and do hope that you have started preparing it.

Again let me thank you for your prompt reply to our inquiry.

Very truly yours,

Thomas C. Ponder
Petrochemicals Editor

TCP:ojc

PETROLEUM REFINER

Specialized for Refining, Natural Gasoline and Petrochemicals

P. O. Box 2608, Houston 1, Texas

1315 A

Ann

August 8, 1956

Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vince 32
Minlano, Italy

Dear Dr. Natta:

Thank you for your August 3rd letter and I am indeed pleased to hear from you. We have seen very glowing reports of your stateside visit in the various technical journals.

I certainly do hope you will consider the preparation of an article for the Petroleum REFINER. The entire petrochemical industry is intensely interested in your polymerization reaction developments.

In order to guide you in the preparation of any article for the Petroleum REFINER I am enclosing a copy of our Author's Handbook. By reading this little booklet you will know and understand our entire editorial policy.

Very best personal regards.

Very truly yours,

Thomas C. Ponder /ll

Thomas C. Ponder
Petrochemicals Editor

TCP:ojc

PETROLEUM REFINER

Specialized for Refining, Natural Gasoline and Petrochemicals

P. O. Box 2608, Houston 1, Texas

Ann

June 29, 1956

Dr. Gulio Natta
c/o Gordon Research Conference
Colby Junior College
New London, New Hampshire

Dear Dr. Natta:

We are currently planning our December issue of the Petroleum REFINER which will be "Advances in Petrochemicals". There seems to be a great deal of interest being expressed toward polyolefins and in particularly polypropylene. We would certainly like to present an authoritative and complete article on these polymers in our December "Advances" issue.

It is our understanding that you have developed a process for the manufacture of these higher olefins. Perhaps you would like to present this process in an article for the REFINER.

As we visualize the article at this time it would cover more of the patent literature and advances such as you and Ziegler have made. Of course, not to be discounted is the investigation and work that has been done in the United States. The current story is that you and Montecantino are in a position far advanced from anything yet developed in the United States and are licensing the process.

We have set a deadline for receipt of this material for this issue of October 1, 1956. We would certainly appreciate hearing from you at your earliest convenience concerning the possibility of your taking part in this December issue.

Please let us hear from you soon.

Very truly yours,

Thomas C. Ponder

Thomas C. Ponder
Petrochemicals Editor

TCP:ojc

63A

Am

PITTSBURGH
PLATE GLASS COMPANY

SPRINGDALE RESEARCH CENTER

PAINT DIVISION. SPRINGDALE, PA.

H. L. GERHART
DIRECTOR OF RESEARCH

ADDRESS REPLY TO
125 COLFAX STREET

January 12, 1956

visita non ancora in programma

Dr. G. Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Dr.

We appreciate having your communication of last November indicating that you would try to visit us in Pittsburgh. I am wondering whether by this time your travel plans are finalized and whether we can count on your presence as a guest speaker to a meeting of the Chemical Society High Polymer Section in April or May.

Incidentally, I shall be passing through Milan on about March 20 and if I can possibly do so, will telephone your office.

Sincerely yours,

H. L. Gerhart

H. L. Gerhart
Director of Research

HLG:ah

December 11, 1956

Prof. C. G. Overberger, Head
Department of Chemistry
Polytechnic Institute of Brookly
99 Livingston Street
B R O O K L Y N 1 - New York

Dear Professor Overberger,

I received your kind letter of November 11, in which you inform me about the wish of Dr. Michelotti to develop a post-doctoral work in our Institute.

During this year, I received a great number of requests from people of different countries of Europe and America, who wishes to work at out Laboratories. However, I have been able to accept only a limited number of them, owing to the deficient room. This will be overcame when the new wing of the Institute will be completed. At present 60 people with a doctor degree are working in my laboratories.

On the other hand, there was some difficulty in regard to the financial remuneration, as all financial means at our disposal are already engaged till the entire 1957. In any case, I will remember the Dr. Michelotti's wish and I shall be glad to let you know, before June 1957, if there are some possibility.

I do hope to meet Mrs. Overberger and you in Europe next year. With my kindest personaleregards, I remain,

Sincerely yours,

Giulio Natta

932

November 14, 1956

Prof. C. G. OVERBERGER, Head
Department of Chemistry
Polytechnic Institute of
BROOKLYN 1 - New York - U.S.A.
99 Livingston Street

Dear Professor Overberger,

I wish to thank you very deeply for your kind letter of November 7 and I am very sorry to have troubled you. I wrote to you only as I was afraid to be in debt with the Colby College Organisation, and it was not necessary that Dr. Parks troubled himself one more.

I shall be delighted to see you in Paris during the IUPAC Congress next summer; my wife and myself do hope to have the pleasure to meet in Paris also your charming wife.

Please let me know if you may give a lecture in Milan before the IUPAC Congress, so that I may examine the possibility of a contribution for your travelling expenses in Europe.

With kindest regards.

Sincerely yours,

Giulio Natta

485/Amer.

October 27, 1956

Prof. G. C. Overberger, Head
Department of Chemistry
Polytechnic Institute of Brooklyn
Livingston Street 99
Brooklyn 1, New York, U.S.A.

Dear Overberger,

I often remember the very busy trip through the States, and in particular, the very nice period spent at New London during the Gordon Conference on High Polymers that you organized so well.

When I left New London, I have been told that the bill about my expenses for rooms and meals in the Colby College will be sent to me. I gave my address in Houston, where I stopped some days, but till now I do not receive it. I doubt it have been lost, and I soulf be grateful to you if you may let ma know something about.

Hoping to have the pleasure to meet you again during the IUPAC Congress in Paris, or in an other occasion, I send you my best personal regards. Please convey my best wishes to your charming wife.

Sincerely yours,

Giulio Natta

830 A

July 25, 1956

Prof. C. G. Overberger, Head
Department of Chemistry
Polytechnic Institute
99 Livingstone Street
BROOKLYN 1 - NEW YORK - N.Y., US

Dear Professor Overberger,

I wish to thank you very much for having planned, together with Dr. Mark, my wonderful trip to the States.

It has been very interesting for me to come to the Gordon Conferences and it has been also very pleasant.

I was sorry that my bad English has been a great trouble for all of you, but I am very greatful to you for the help you gave to me even in this matter.

I hope to meet you and Mrs. Overberger next year, also in Italy, if you will attend the I.U.P.A.C. Congres in Paris.

Please, give to Mrs. Overberger my best thanks for the lovely party we had at your home, and will you accept my best regards.

Very sincerely yours,

Giulio Natta

312

12 Octobre 1956

Mr. Jérome V. POWELL
European Representative
"Oronite Chemical Company"
36, Avenue William-Favre

G E N E V E (Svizzera)

Monsieur Powell,

Je vous remercie beaucoup de votre lettre du 8 octobre.

Je serais très heureux de pouvoir vous rencontrer après votre retour des Stats-Unis et j'espère bien de pouvoir visiter la Californie au cours d'un prochain voyage en Amérique.

En ce qui concerne une visite de Mr. Edeleanu en Italie, je regrette de vous communiquer qu'à la fin octobre et pendant la première semaine de novembre je ne serai pas à Milan à cause de précédents engagements, et après je dois me rendre à Paris du 15 novembre jusqu'au 24 novembre.

Je pense qu'il me sera donc bien difficile de pouvoir recevoir Mr. Edeleanu avant la fin de novembre.

Je vous prie d'agréer, Monsieur, l'expression de mes sentiments les meilleurs.

(Prof. Giulio Natta)

944

October 5, 1956

Dr. Thomas A. Orofino
c/o Laboratori for Inorganic
and Physical Chemistry
Hugo de Crootstraat 27
LEIDEN - Holland

Dear Dr. Orofino,

I received your letter of September 25, and I inform you that you can visit our Laboratory during your coming to Italy. If I shall not be here when you will be in Milan, some of my assistants will show you the Institute.

Very truly yours,

(Prof. G. Natta)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

March 23, 1956

Professor Giulio Natta
Isituto di Chimica Industriale
del Politecnio
Piazza Leonardo Da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Enclosed you will find an application form and a request for reservation for the Gordon Research Conference on Polymers. Would you kindly fill these out and return them to Dr. W. George Parks before April 1, 1956?

I am sorry to bother you with this chore.

With kindest regards,

Sincerely,

C. G. Overberger, Head
Department of Chemistry
Chairman - Gordon Research
Conference on Polymers

CGO:DL
Encl.

PETROLEUM REFINER
Specialized for Refining, Natural Gasoline and Petrochemicals
P. O. Box 2608, Houston 1, Texas

October 26, 1956

Dr. Gullio Natta
Instituto di Chimica Industriale
Politecnico di Milano
Milano, Italy

Dear Dr. Natta:

We are enclosing a rough draft of an article entitled "Compare Polyethylene Process Competition". This article will be staff written and will appear in our December, 1956 Petrochemical Developments Issue.

We would like for you to go over the rough draft and add or delete where it will improve the article. You will know, much better than we, where the material is incorrect and will be able to set us straight by a few comments. If you are unable to give information on the process owned by your company, perhaps you will want to comment on the processes in which your company has no immediate interest.

Your name will not be used in any connection with the published article. Please feel free to comment to the extent of your company's policy. If you desire, we will be glad to send galley proofs of the finished article before publication for your final comments.

In order for us to take advantage of your help won't you please return the rough draft with your comments no later than November 15, 1956. If you cannot comment, please return the rough draft and we will understand your position.

Very truly yours,

Thomas C. Ponder
Petrochemicals Editor

TCP:ojc
Enc:

1277 A

MERCK & CO., INC.

MERCK SHARP & DOHME RESEARCH LABORATORIES DIVISION

RAHWAY, NEW JERSEY

Ann

August 8, 1956

VIA AIR MAIL

R 23.8.56

Prof. Natta
Instituto Polytechnico di Milano
Milano, Italy

Dear Prof. Natta:

I have had great pleasure in following your excellent work on stereoselective polymerizations. Their theoretical implications intrigue me very much, especially the many isomeric forms that may be obtained with polyolefins. In this connection I have been unable to spatially understand the eight isomeric polyisoprenes mentioned in your Gordon Research Conference lectures and in your recent excellent article in Angewandte Chemie. I have only been able to see the following six isomers:

1,4 all trans
1,4 all cis
1,2 syndiotactic and isotactic
3,4 syndiotactic and isotactic

I realize that you are a very busy man, but I should appreciate very much if you would be kind enough to show me where I am amiss in this question of considerable theoretical significance. If you have anything published in this field I should be very grateful for any available reprints.

I still remember with greatest pleasure to have made the acquaintance of Me. Natta and yourself and hope to have a chance to renew it in the near future.

Respectfully yours,

P. I. Pollak

PIP/am

Rispondere gentilmente

GORDON RESEARCH CONFERENCES
OF THE
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
NEW HAMPTON SCHOOL
NEW HAMPTON, NEW HAMPSHIRE

June 11, 1956

Dear Professor Natta

Mr. Sharp of Merck, Sharp & Dohme International Division, and Dr. Max Tishler of the Merck, Sharp & Dohme Research Laboratories have instructed me to greet you at this conference in their names as well as officially in the name of Merck & Co., Inc. We hope that your stay at these Conferences is a most pleasant one for you and Mrs. Natta.

It would give me great pleasure to make your personal acquaintance in order to convey to you the respect of these gentlemen, and to extend to you a formal invitation to come and visit Merck & Co., Inc., in Rahway, New Jersey.

I should also welcome any opportunity to assist you in any way possible in order to make your visit here a happy one, so, please, do not hesitate to call on me at any occasion.

Looking forward to meeting you I submit my respects to you and Mrs. Natta.

Peter J. Pollak

1787 A

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

The College

JOHN HARRISON LABORATORY OF CHEMISTRY
Office of the Director

Ann

August 14, 1956

Dear Professor Natta:

We have not yet prepared another sample of optically active polypropylene oxide. This should be completed by September and we will be glad to send the sample you have requested.

It was a great pleasure to become acquainted with you and Mrs. Natta this summer. We hope to see you again in Italy next year.

Sincerely yours,

Charles C. Price

Charles C. Price
Director

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32 - Milano
Italy

[illegible]

759 A

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

The College

JOHN HARRISON LABORATORY OF CHEMISTRY
Office of the Director

April 30, 1956

Dear Dr. Natta:

We were most interested in your letter and the enclosed communication on crystalline polypropylene oxide. It was most interesting that our work on optically active polypropylene oxide, started before we knew of your work on isotactic polymers, should fit so well together with yours.

In the publication of the work on poly-l-propylene oxide, which will appear in the Journal of the American Chemical Society in several months, we have pointed out that the mechanism outlined in the communication may well apply also to the isotactic polymerization you have performed, by merely replacing the oxygen atom with a pair of electrons.

May I say again that we appreciate your courtesy in forwarding to us a copy of your communication.

We look forward to seeing you this summer at the Polymer Conference.*

Sincerely yours,

Charles C. Price

Charles C. Price
Director

* And also the Organic Processes Conference.

Dr. Giulio Natta
Istituto Di Chimica Industriale
del Politechnico
Piazza Leonardo Da Vinci 32
Milano, Italy

632A

12 Var

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

March 26, 1956

Dr. Giulio Natta
Instituto di Chimica Industriale
Piazza Leonardo da Vinci
Milano, Italy

Dear Dr. Natta:

We are sending you separately our Technical Reports 36A-37A-37B-38A-40A-40B which will bring your set up to date Feb. 15, 1956.

We also include a new index sheet to replace page 5 of your present index.

Again, we shall be very pleased if you will make these reports available to your plastics industry. We hope you will find them interesting and useful, and of general benefit to your country.

Sincerely yours,

L. F. Rahm

L. F. Rahm
Director

LFR:rp

November 14, 1955

Kunich

Mr. Thomas C. Ponder
Petrochemical Editor
Petroleum Refiner
P.O. Box 2608
HOUSTON 1, Texas

Dear Mr. Ponder,

I received your kind letter of October 26, with enclosed the article "Compare Polyethylene Process Competition". I read with interest this article and I am sending you my comments concerning some inexactnesses from a chemical point of view:

Pag. 6, Line 1 - in the place of "lithium ethylate" write "lithium ethyl"
" line 2 - in the place of "aluminum ethylate" write "aluminum ethyl"
" line 7 - in the place of "butadiene" write "butylene"
" line 14- in the place of "aluminum triethylate" write "aluminum triethyl"

Pag. 9, line 7 - in the place of "35,000 psi" write "13,500 psi"

Pag. 12, line 6 - in the place of "An advantage of the Phillips process. write "An advantage of the Phillips and Ziegler processes.. "

Pag. 15, line 5 - in the place of "compared to 1000psi" write "compared to 1000-2000 psi".

I think that this article may be published and may be of interest to the readers of "Petroleum Refiner".

With best regards.

Very truly yours,

Giulio Natta

September 11, 1956

Mr. Thomas C. Ronder
Petrochemicals Editor
Petroleum Refiner
P.O. Box 2[illegible]
HOUSTON 1 - Texas - U.S.A.

Dear Mr. Ronder,

I received your kind letter of August 8. Though I received several requests of articles from European and American Reviews, I am considering the possibility to prepare an article for your Review "Petroleum Refiner". Therefore, I should like to receive some information on:

1) the needed time for publication, from the day you will receive the manuscript, considering that we wish to revise the proof-sheets. They will have to be sent to us and returned by us <u>by air mail</u>;
2) the reprints number you will send to us gratis.

Awaiting your kind reply, I send you my best regards.

Very sincerely yours,

Giulio Natta

20

August 3, 1956

Mr. Thomas C. Ponder
Petrochemicals Editor
Petroleum Refiner
P.O. Box 2608
HOUSTON 1 - Texas - U.S.A.

Dear Mr. Ponder,

I am sorry that my busy trip through the States did not permit to reply to your letter of June 29, before my coming back to Milan, some days ago.

In regard to your proposal to do an article about the new polymerization processes, I shall be able to give you an answer only after this period of vacations, for instance, during the first weeks of September.

With best regards.

Very sincerely yours,

Giulio Natta

424

23 Agosto 1956

Mr.Dr. Pollak
Merck & Co., Inc.
Merck Sharp & Dohme Research
Laboratories Division
RAHWAY - New Jersey

Caro Dr. Pollak,

ricevo la Sua gentile lettera dell'8 c.m. Vorrà scusare se rispondo in italiano, poichè la mia segretaria è in vacanza, ma so che Lei può capire perfettamente, ed è per me più semplice che scrivere in inglese.

Sono stato molto lieto anch'io di averLa conosciuta e spero di rivederLa in Italia.

Per quanto riguarda gli isomeri del poliisoprene essi sono realmente 6 se ci si limita ai polimeri cristallizzabili. Diventano 8 se si considerano gli atattici amorfi a configurazione 1-2 ed a configurazione 3-4.

Si hanno perciò 8 polimeri diversi tutti costituiti da un solo tipo di concatenamento :

1-4 cis
1-4 trans
1-2 sindiotattico
1-2 isotattico
1-2 atattico
3-4 isotattico
3-4 sindiotattico
3-4 atattico

Effettivamente quanto è scritto nell'Angewandte Chemie è poco chiaro perchè la parola "regelmässige Struktur" dovrebbe far escludere gli atattici.

Mia moglie ringrazia dei saluti, che ricambia con me vivamente. Spero di rivederLa presto in Italia.

Cordiali saluti.

G.NATTA

61A

January 21, 1956

Mr. H. L. Gerhart, Director of
Research,
Pittsburgh Plate Glass Company
Springdale Research Center
Paint Division
125 Colfax Street
SPRINGDALE, Pa., U.S.A.

Dear Mr. Gerhart,

I received your letter of January 12. I shall be very pleased to meet you when you are passing through Milan. I think I shall be here on about March 20, but it is better that you confirm me the exacte date of your arrival.

I inform you that I shall come to the U.S.A. in June, but I cannot, till now, settle a definitive schedule for my travel. I foresee to participate to three Gordon Research Conferences, and namely, "Organic Reactions and Processes"(June 11), "High Polymers" (July 1-5), and "Elastomers" (July 30-August 3).

Many thanks for your kind invitation to attend the meeting of the Chemical Society High Polymer Section, in April or May; I am very sorry but I cannot come to the U.S.A. in this period.

Awaiting the pleasure of seeing you in Milan, I send you my best regards,

Giulio Natta

August 2, 1956

Professor Charles C. Price, Direct
John Harrison Laboratory of Chem
University of Pennsylvania
PHILADELPHIA 4 - Pa.

Dear Professor Price,

I enjoyed very much to have made your acquaintance. Mrs. Natta keeps a very grateful remembrance of all the kindness received by Mrs. Price in Philadelphia.

I do hope that you have soon an opportunity to come to Europe, and in this case, we would be very pleased if you may come to our Institute and, if possible, give a lecture to our staff.

I remember what you told me in New London and I confirm you that if you want to send us some designs of polypropylenoxide optically active, we will be very glad to examine it by means of electron diffraction and to establish if there is the predictable little difference, in the intensity of reflections, between the optically active and racemic crystals. I confirm you that we shall be very glad to communicate you as soon as possible the examination results. Of course you will be able to dispose of such results in any utilization or eventual publication you wish to do.

With many thanks and best wishes to Mrs. Price and you, I am

Very sincerely yours,

Giulio Natta

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Publications
Patents on Chem. Ind.

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

February 21, 1955

Dr. Giulio Natta
Instituto di Chimica Industriale
Piazza Leonardo da Vinci
Milano, Italy

Dear Dr. Natta:

We are sending you under separate cover our technical reports 34A, 34B, and 34C, to bring your set up-to-date.

We would like to know at your convenience whether these reports have been of any value to your Plastics Industry, or to you. We shall discontinue sending them, if you advise us that they are not consulted and are of no interest. Otherwise, we shall be glad to continue to send them.

Sincerely yours,

L. F. Rahm

L. F. Rahm, Director
Plastics Laboratory

LFR:pc

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

June 25, 1954

Dr. Guilio Natta
Inst. di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

We are sorry that we could not make our set of reports complete but the numbers you mention are no longer available, either as original reports or as reprints.

However, you may note in the Index as follows:

14A may be found in the American Chemical Society Journal 74, 938, 1952.

16A in Journal of Polymer Science Vol. 7, No. 2/3, 1951.

17B Journal of Polymer Science, Vol. 4, 1949.

18A Textile Research Journal (Princeton, N.J.), April 1948, 201-223, May 1948, 302-314, January 1949, 8-22.

18G Superseded by 26B and 28A (which you have) Part III should appear this year and will be sent to you.

We are very glad if your friends are interested in these reports and we hope that they may benefit by them. Since many of the reports can no longer be replaced we hope that you will not allow your copies to become lost.

In emergency you might appeal to the Pasquetti Company (extruders) in Varese, Via Sanvito Silvestro 103. Dr. Bagnati was very nice to me and my friend when we visited there and I later sent him several reports from which he might let you fill in copies which might be lost in your own set. We have no more sets available; only a few odd single copies.

Thank you for your notice of the plastics meeting next Autumn. I shall not be able to attend but I hope I shall return to Italy some time and see you again.

Sincerely yours,

L. F. Rahm

Louis F. Rahm, Director

LFR/mn

Peut-être nous parlerons tête à tête, la fois prochaine, parce-que j'apprends le français depuis Mars dernier. J'étais courteuse de ne peux pas parler en Italie et en France.

Confederazione Generale dell'Industria Italiana
Delegazione per l'Alta Italia

Prot. N.° 3066
(da citare nella risposta)

Economico - LL/du

Milano, 7 giugno 1954
Via della Posta, 3: Tel. 896855/6/7/8

Chiarissimo Professore,

in possesso della pregiata Sua del 5 corrente, abbiamo preso buona nota di quanto con essa ci comunica, e ne abbiamo informato le Associazioni di categoria nostre associate, dei settori raggruppanti i produttori e gli utilizzatori di materie plastiche, affinchè portino a conoscenza di tutti gli industriali interessati la possibilità, da Lei gentilmente offerta, di consultare i lavori del Plastics Laboratory della Università di Princeton.

RingraziandoLa per la cortese collaborazione, distintamente La salutiamo.

Confederazione Generale dell'Industria Italiana
Il Capo della Delegazione Alta Italia
(Avv. Renzo Boccardi)

Chiarissimo Professore
G. Natta
Direttore dell'Istituto di
Chimica Industriale
Politecnico di
Milano

COMITATO ELETTROTECNICO ITALIANO

MILANO - VIA SAN PAOLO, 10 - TELEFONI 794.794 - 798.897 - TELEGRAMMI: ASSELITA MILANO

COMITATO NAZIONALE ITALIANO
DELLA
COMMISSIONE ELETTROTECNICA INTERNAZIONALE
E DELLA
CONFERENZA INTERNAZIONALE
DELLE GRANDI RETI AD ALTA TENSIONE

VS/ RIF.

NS/ RIF. 1404/SN/rf

MILANO. 11 Giugno 1954

Egr. Sig.
Prof. G. NATTA
Istituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci, 25

MILANO

La ringrazio della segnalazione fattami della disponibilità dei lavori sulle materie plastiche del Laboratorio dell'Università di Princeton.

Ho dato comunicazione della cosa al nostro Sottocomitato, che si occupa di materiali isolanti, e sono certo che ne trarrà vantaggio dalla disponibilità di tale materiale.

Con distinti saluti.

IL SEGRETARIO

(R. San Nicolò)

1.6.1956

Dear Professor Charles C.Price
Director - J. Harrison Lab. of Chem.
University of Pennsylvania
PHILADELPHIA 4

Dear Professor Price,

Many thans for your letter of April 30. I shall be very pleased to see you at the Gordon Conferences on Organic Reaction and on High Polymers. I hope to be able to meet you also in Wilmington and I look forward to have useful discussions on several problems of mutual interest.

With kindest regards

(Prof.G.Natta)

April 13, 1956

Professor Charles C. Price
Department of Chemistry
University of Pennsylvania
PHILADELPHIA 4 - Pa.

Dear Professor Price,

I read with the greatest interest your letter to the Editor c the Journal of the American Chemical Society, about the optically activ and racemic crystallin polypropylen oxides.

Under separate cover, I am sending you some reprints of our works on the crystallin polymers of alfa-olefins. You can see that we prepared a crystallin polymer from the racemic 4-methylexene-1. In this case we suppose that our catalyst would be able to choose monomer of th same steric configuration in synthesizing each macromolecule.

As we were particularly interested in chain form of the crys lin polypropylene oxide, we synthesized the racemic crystallin polypro lene oxide and we studied its structure by X-Rays.

I send you, enclosed, the manuscript of a short communicatio that is to be published by the "Accademia Nazionale dei Lincei", about the structure of crystallin polypropylene oxide. Our data agree with y We find only a slightly higher density (exper. 1.05, X-Ray 1.09) and w have interpreted our data with a fully extended zig-zag chain, correspo ing to a "binary helix". The structure of polypropylene oxide resemble more the protein structure that that of isotactical polymers, the latt having the tertiary carbon atoms between two $-CH_2-$ groups. The isotact polymers, described in precedent publications, have helix-structure wi different symmetry.

I shall be very pleased to meet you in the U.S.A. during the Gordon Research Conferences, and I am sure we may have useful discussi on problems of mutual interest.

Looking forward to having the pleasure to see you, with the best regards, I am

Very sincerely yours,

Giulio Natta

Encl.

April 11, 1956

12 Vo

Prof. L. F. Rahm, Director
The Plastics Laboratory
30 Charlton Street
PRINCETON, New Jersey, U.S.A.

Dear Professor Rahm,

Many thanks for your kind letter of March 26, and for the Technical Reports you sent to us. These Reports will be at our Library, at the disposal of all the interested persons.

With best regards.

Very sincerely yours,

Giulio Natta, Director

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

May 14, 1954

Dr. Giulio Natta
Institute di Chimica Industriale
Piazza Leonardo da Vinci
Milano, Italy

Dear Dr. Natta:

This will advise you that we are mailing to you the Technical Reports which we mentioned previously. The set has been divided into five packages of about four pounds each and these are being sent by insured Parcel Post and should arrive in about two weeks.

We shall be very pleased if this information will be helpful to you personally and of interest and value to your plastics industry. We trust that you will notify the people in your country who might benefit by these reports and that you will make them readily available for general use.

In recalling again my pleasant visit with you last year I send you best personal regards and best wishes.

Sincerely yours,

L F Rahm

Louis F. Rahm, Director

LFR/mn

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

March 24, 1954

Dr. Guilio Natta
Instituto di Chimica Industriale
Piazza Leonardo da Vinci
Milano, Italy

Dear Dr. Natta:

When I visited you last Autumn I was interested in the European plastics industry from the standpoint of (1) quality and quantity of research in industry and in educational institutions (2) engineering education in the field of plastics, (3) size and character of your national production and (4) national organization.

In regard to engineering education in ten countries I found that Europe is even less advanced than the United States where Princeton has made only a beginning in this important field. On the other hand I found a number of countries where the need was recognized and where there appeared to be an interest in developing educational engineering facilities in this field. I hope that the Plastics Brochure which I left with you may suggest a plan which would be suited to your own needs and if I can be of any help in such developments I shall be very glad to offer the benefit of our experience here.

In regard to research I was impressed with the lack of research in some countries, the excellence of research in others and the frequent duplication of research efforts in various places. It occurred to me that the Technical Reports from our Plastics Laboratory could be of value in many cases if they were available in each country. Although there has been some delay we now have the approval of the Army, Navy and Air Force to place a complete set of our reports in your country and we are writing to learn whether or not this would be of interest to you.

There are altogether about 50 reports, 8½" x 12" requiring about 24" of shelf space, and weighing about 10 Kg. We would send these gratis and pay shipping costs. The reports cover the entire field of plastics from theoretical high polymer chemistry through electrical and mechanical studies and evaluation methods and equipment. The enclosed list of titles describes the subjects very well.

If you will give us the following information it will help us greatly in deciding whether or not to send you a set of reports:—

1. Do you think these reports would be of interest to your plastics industry?

2. If so, where should they be placed for greatest usefulness?

3. Who will be responsible for taking care of the collection?

4. How will these be made available to your plastics research people?

5. Who will know that they are available?

Thanking you for your kind hospitality and with best personal regards,

Sincerely yours,

L. F. Rahm

Louis F. Rahm, Director

LFR/mn
Encl.

CC: Dr. Antonio Nasini

February 28, 1955

Prof. L.F. R AHH M, Director
The Plastics Laboratory
Princeton University
30 Charlton Street
P R I N C E T O N, New Jersey

Dear Professor Rahm,

I received your letter of February 21, and I thank you very much for your kindness in sending me you technical reports 34A, 34B, and 34C. These reports are of great value for us and I should be glad to continue to receive them.

I am sending you, under separate cover, two reprints of the publications of my coworkers.

With best regards,

Sincerely yours,

Prof.G.Natta

June 21, 1954

Prof. Louis F.Rahm, Director
The Plastics Laboratory, Univers
PRINCETON, 30 Charlton Street

Dear Professor Rahm,

Please excuse me for the delay in answering to you. I received your Technical Reports and there are not the numbers: 14 A, 16 A, 17 B, 18 A and 18 G. I don't know if these Reports have been forgotten and, if so, I should like to have them.

I am glad to inform you that all these interested in the field of Plastics have already been informed that your collection is available in our library, and many of them asked me for having some copies in their library.

With best personal regards, I am

Very truly yours,

(G.Natta)

May 18, 1954

Prof. Louis F.Rahm, Director
The Plastics Laboratory, Univ
Princeton - 30 Charlton Stree

Dear Professor Rahm,

I received your letter of May 14, in which you advise me that your Technical Reports are mailing to Italy.

I am glad for this information and, I shall begin to announce that your collection will be available at the Polytechnic in our library, to all these interested in the field of Plastics.

With my best personal regards, I remain,

Very tryly yours,

(Prof. G. Natta)

5 Giugno 1954

Egregio Professor Coppadoro
Società Chimica Italiana
Milano - Via San Paolo 10

Caro Coppadoro

Ti informo che ci è stata mandata dal Prof. Louis F.RAHL, Direttore del Plastics Laboratory dell'Università di Princeton, tutta la collezione dei lavori (circa 50) di detto Laboratorio nel campo delle Materie Plastiche. I suddetti lavori sono a Vostra disposizione per eventuali consultazioni, nel caso che Vi possano interessare, nella Biblioteca di questo Istituto (orario 9,30-12,30 e 14,30-18,00).

Distinti saluti.

~~Il Direttore dell'Istituto~~

G. Natta

5 Giugno 1954

Spett. Associazione Nazionale Industrie
Elettriche — A.N.I.E.
ALL'ATTENZIONE DELL'Ing. P.Anfossi
Milano — Via [redacted] 30

Vi informo che si è stata mandata dal Professor Louis F.RAHI, Direttore del Plastics Laboratory dell'Università di Princeton, tutta la collezione dei lavori (circa 50) di detto laboratorio nel campo delle materie plastiche. I suddetti lavori sono a Vostra disposizione per eventuali consultazioni, nel caso che vi possano interessare, nella Biblioteca di questo Istituto (orario 9.30—12.30 e 14.30-16.00).

Distinti saluti.

Il Direttore dell'Istituto
(Prof.G.Natta)

5 Giugno 1954

Spett. "CONFINDUSTRIA" Confederazione
Generale dell'Industria Italiana
Milano - Via della Posta 3

Vi informo che si è stato mandato dal Prof. Louis F. KAHN, Direttore del Plastics Laboratory dell'Università di Princeton, tutta la collezione dei lavori (circa 50) di detto laboratorio nel campo delle Materie Plastiche. I suddetti lavori sono a Vs. disposizione per eventuali consultazioni, nel caso che Vi possano interessare, nell'Istituto di Chimica Industriale (orario: 9.30 - 12.30 e 14.30 - 18.00).

Distinti saluti.

Il Direttore dell'Istituto
(Prof. G. Natta)

5 Giugno 1954

"UNIPLAST" (all'attenzione del
Dr. Vecchiarelli)
M i l a n o - Piazza Diaz 2

Vi informo che mi è stata mandata dal Prof. Louis F. RAMM, Direttore del Plastics Laboratory dell'Università di Princeton, tutta la collezione dei lavori (circa 50) di detto laboratorio nel campo delle Materie Plastiche. I suddetti lavori sono a Vostra disposizione per eventuali consultazioni, nel caso che Vi possano interessare, nella Biblioteca di questo Istituto (orario 9,30 - 12,30; 14,30 - 18,00).

Distinti saluti.

Il Direttore dell'Istituto

5 Giugno,1954

Spett. Comitato Elettrotecnico
Italiano C.E.I.

Milano - Via San Paolo 10

Vi informo che si è stata messa dal Prof. Louis F.RAHI, Direttore del Plastics Laboratory dell'Università di Princeton, tutta la collezione dei lavori (circa 50) di detto laboratorio nel campo delle materie plastiche. I suddetti lavori sono a vostra disposizione per eventuali consultazioni, nel caso che Vi possano interessare, nella Biblioteca di questo Istituto (orario 9,30 - 12,30 e 14,30 - 18,00).

Distinti saluti.

Il Direttore dell'Istituto

March 29, 1954

Prof. Louis F. Rahm, Director
The Plastics Laboratory, Universit
Princeton - 30 Charlton Street

Dear Professor Rahm,

I thank you very much for your letter of March 24 with list of your reports, and I can give you the information you asked me for.

The only two greatest Plastics Laboratories in Italy are that in Turin, directed by Prof. Antonio Nasini, and this in Milan. I am very interested in all your reports covering the entire field of plastics and I think they will be very important for our plastics industry.

Therefore, your collection will be placed, for its greatest usefulness, in our library and our librarian will take care of it.

We shall announce that your collection is available to the whole Politechnico, the Italian Chemical Society, the Associations of Plastics Matters Manifacturers, the "Uniplast" (Plastics Matters Unification), the C.E.I. (Italian Electrotechnical Committee) interested in the Electrical Industries Unification field, the "Confindustria", and the "ANIE" (National Association of Electrical Industries) interested in insulating materials.

Naturally, we shall allow all these Associations to consult your collection.

I think it will be in agreement with your desires, and, with my best personal regards,

I remain,

Very truly yours,

(Prof. G. Natta)

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, January 21, 1954
TELEF. 292-125 - 292-126

Prof. Louis F. Rahm, Director
The Plastics Laboratory
30 Charlton Street
Princeton, New Jersey

Dear Professor Rahm,

I received your kind letter of January 6, and I assure you that, if I have the occasion to go to the United States, I shall be very pleased to visit your Plastics Laboratory at Princeton.

I also hope that, if you come again to Italy, I shall be able to dedicate you more time than last September. Then we shall be able to examine together many problems of common interest.

Under separate cover, I am sending you the numbers of our papers which you asked for.

Hoping to see you soon in Italy,

I remain,

Very truly yours,

(Prof. G. Natta)

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

January 6, 1954

Dr. Giulio Natta
Politecnico di Milano
Milano, Italy

Dear Professor Natta:

I have just returned from my trip to Europe and recall with great pleasure my visit to your Laboratory in September in company with my young friend Sergio Bonotto. I regret that I had not properly kept in touch with you and that you were not entirely prepared for a visit, but nevertheless, I enjoyed it very much and particularly want to thank your able assistant, Dr. Dante Pagani, for showing us the Laboratory in detail.

In reply to your letter of November 16 we are pleased to find that you are interested in the work we are doing. We feel that this may be of value to you since you yourself have an interest in basic science and your Proving Laboratory has a practical interest in testing and test methods. Our papers cover the entire field and we are pleased to send you, so far as we have copies, the numbers which you asked for. In return we would be pleased to receive Numbers 2, 4, and 7 of your own papers from the list which you enclosed.

We hope that you and Dr. Pagani may have occasion to visit us here at Princeton when we shall be very pleased to return your hospitality. With best regards,

Sincerely yours,

L. F. Rahm

Louis F. Rahm, Director

LFR/mn

CC: Dr. Dante Pagani

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

June 30, 1953

Professor Natta
University of Milano
Milano, Italy

Dear Professor Natta:

We have been advised that you have a very active interest in plastics and an excellent laboratory. If convenient for you, I would like to visit you sometime in late Autumn or early Winter. We enclose a copy of our plastics brochure which may be of interest to you. We also enclose a copy of a letter to Mr. Carlos Rossi of UNIPLAST which explains my interest in visiting Europe.

I hope that I may look forward to meeting you later in the year.

Sincerely yours,

L. F. Rahm

Louis F. Rahm, Director

LFR:JC
Enclosures: Letter to Mr. Rossi
Plastics Brochure

2 Settembre I953

Illmo Professore Natta
Politecnico di Milano

Le compiego le lettere del prof. Rahm, che erano state erroneamente spedite all'università di Milano e rimandati in America.

In una recente lettera il professore Rahm mi ha scritto che sarebbe arrivato a Milano verso il I2 o il I3 settembre.

Sarò ben lieto di fare la Sua conoscenza.

Con tutta stima

Sergio Bonotto
Sergio Bonotto
Assistente Princenton University
Plastics Laboratory

CARNEGIE INSTITUTE OF TECHNOLOGY
SCHENLEY PARK
PITTSBURGH 13, PENNSYLVANIA

PETROLEUM RESEARCH LABORATORY

October 17, 1956

Mauticx

Prof.
~~Mr.~~ Giulio Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Prof. ~~Mr.~~ Natta:

This is in reply to your letter of October 2, 1956. (#253) We are enclosing herewith our complete list of the American Petroleum Institute Standard Samples. → Mauticx

Please write again if we can supply any additional information.

With best regards, I am

Very truly yours,

Frederick D. Rossini

Frederick D. Rossini
Director, Petroleum Research Laboratory

FDR:av
Enclosure

Prepare reports

March 5, 1954

Prof. Louis F. Rahm, Director
The Plastics Laboratory
30 Charlton Street
Princeton, New Jersey

Dear Professor Rahm,

I wish to thank you very much for your kindness to send me the numbers of your papers that I asked for.

With my kindest regards,

I remain,

Very truly yours,

(Prof.G.Natta)

1285 A

CARNEGIE INSTITUTE OF TECHNOLOGY
SCHENLEY PARK
PITTSBURGH 13, PENNSYLVANIA

PETROLEUM RESEARCH LABORATORY

August 14, 1956

Prof. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

In accordance with your request of July 30, 1956, we are sending to you under separate cover, by International Parcel Post, the following material issued by the American Petroleum Institute Research Project 44:

1) One set of infrared spectral data, comprising 1810 sheets, complete as of December 31, 1955.

2) One set of ultraviolet spectral data, comprising 681 sheets, complete as of December 31, 1955.

3) One set of Raman spectral data, comprising 265 sheets, complete as of December 31, 1955.

4) One set of mass spectral data, comprising 1340 sheets, complete as of December 31, 1955.

In return for receiving the foregoing material gratis from the American Petroleum Institute Research Project 44, it is understood that the material will be placed in your library, or in your own office, or that of a member of your staff, in such a way as to be freely available to all the members of your organization who may have need of the data.

Very truly yours,

Frederick D. Rossini

Frederick D. Rossini
Director, Petroleum Research Laboratory

FDR:lb
Copy to: A.L. Lyman, Chairman, Advisory Committee for the API Research Project 44.
E.O. Mattocks, American Petroleum Institute

impressione

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, November 3, 1953
TELEF. 292-125 - 292-126

Prof. Louis F. Rahm
The Plastics Laboratory
3o Charlton Street

PRINCETON, New Jersey

Dear Professor Rahm,

I am very pleased to have made your acquaintance and I am very sorry I could not stay with you longer. I hope I shall soon have the pleasure of seeing you again in Italy or in United States and if I have the opportunity of coming to Princeton, I shall be very pleased to see your Laboratory.

Though the projections you kindly showed I could appreciate the importance of the Specializing School concerning Plastic Matters, that you were able to organize with so much enthusiasm.

You will oblige me much if you send me the following reprints, referring to the list you kindly send me:

I1B, I2A, I2B, I2C, I3A, I3C, I4A, I4C, I5A, I5B, I7A, I8A, I8C, I8D, I8F, I9A, 21B, 21C, 22A, 22B, 24A, 26B, 26C, 27A, 28A, I4B.

I should esteem it a favour if you send us the successive reprints because the most of the works developed in your Plastics Laboratory are very interesting for us.

~~As soon as possible I shall~~
~~I am~~ sendi~~ng~~ you a list of our papers to let you choose the ones you are interested in.

Thanking you beforehand, I remain

Yours truly

(Prof. G. Natta)

Enclosure: List of our papers.

November 15, 1956

Professor Frederick D. Rossini
Director Petroleum Research Lab.
Carnegie Institute of Technology
Schenley Park
PITTSBURGH 13 - Pennsylvania, U

Dear Professor Rossini,

I wish to thank you very deeply for your kind letter of October 17, with enclosed the complete list of the American Petroleum Institute Standard Samples. This is very useful to our work.

With kindest regards, I remain,

Very sincerely yours,

Giulio Natta

253

October 2, 1956

Prof. Frederick D. Rossini
Director, Petroleum Research
Carnegie Institute of Technol
Schenley Park
PITTSBURGH 13 = PENNSYLVANIA

Dear Professor Rossini,

We have just received the two packets containing the Raman, Ultraviolet, Infrared and Mass Spectra, and wewish to present you our best thanks for your kindness. I assure you that all the material you have sent, has been already placed in our library, wher all the people interested in spectroscopy can cosult it. This material will be very helpfull to our studies and I would ask you if it is possible to have a list of spectroscopic samples of chemical compounds (A.P.I. projects) available at the National Bureau of Standards. I hope I have not troubled you too much, and I shall be very honoured if you will visit our Laboratories during an eventual coming to Europe.

Thanking you again very deeply, I remain;

Very sincerely yours,

Giulio Natta

June 30, 1953

Dr. Carlos Rossi
Plastics Society of Italy - UNIPLAST
Milano, Italy

Dear Dr. Rossi:

I shall be on Sabbatical leave from the University for several months beginning in September and expect to travel in Europe visiting all of the western countries. As Director of our Plastics Laboratory here, I shall be interested to meet technical people connected with plastics education, research and manufacturing and to visit laboratories and plants where this is permitted.

Since I am a mechanical engineer I am more interested in methods, forming, equipment, physical research, properties and applications of materials rather than high polymer chemistry and chemical engineering. Further, since I am a teacher having no business connections, I am neither buying nor selling plastics but I do have an overall interest in your industry. If you can refer me to any companies or persons who would like to discuss plastics, I would be very pleased to have your suggestions.

Also I can be prepared to give an illustrated lecture on plastics if you feel that there would be sufficient interest in this if given in English. The talk would cover Princeton's educational and research interests in plastics, and new materials and developments in the industry in U.S.A. It should be of interest to engineering students, teachers and technical people in the industry. For your information we enclose a copy of our plastics brochure which may be of interest to you.

In any case I hope I shall have the pleasure of meeting you and learning something about your plastics society and industry.

Sincerely yours,

Louis F. Rahm, Director

LFR:JC
Enclosure: Plastics Brochure

cc: Professor Natta

API TABLES AND CATALOGS OF DATA

Order No. Gratis

Date of receipt of order 8-7-56

Shipped from:

PETROLEUM RESEARCH LABORATORY
CARNEGIE INSTITUTE OF TECHNOLOGY
PITTSBURGH 13, PENNSYLVANIA

Shipped to:
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Attn.: G. Natta
Order No.

DATA	MATERIAL	NUMBER OF SHEETS
PHYS. AND THERMO. PROPERTIES		1810
INFRARED SPECTRAL DATA	One set complete as of 12-31-55	681
ULTRAVIOLET SPECTRAL DATA	One set complete as of 12-31-55	265
RAMAN SPECTRAL DATA	One set complete as of 12-31-55	1340
MASS SPECTRAL DATA	One set complete as of 12-31-55	

PACKER Hm

Int. Parcel Post -2 Packages DATE SHIPPED 8-15-56

EUROPEAN TECHNICAL REPRESENTATIVE
FOOD MACHINERY &
CHEMICAL CORP. (U. S. A.)

CHARLES P. ROBERTS
6, RUE DE LA CORRATERIE
GENEVA, SWITZERLAND

CABLE: FOODCHEM - GENEVA
TELEPHONE 25 21 21

May 24, 1956

Prof. Guilio NATTA
Istituto di Chimicia Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Prof. Natta,

It was indeed a pleasure to meet you and to visit you and Mrs. Natta in your delightful home with Dr. Ott and Mr. Winnicki. I hope you will find an opportunity to come to Geneva in the near future. Mrs. Roberts and I would be very pleased to see you.

As you know, we have been interested for some time in your important developments in the polyolefin field. I was particularly interested in what you told us about your polybutylene. It would appear that FMC may be in a uniquely favorable position in the United States to produce this material due to the fact that we normally isolate butylene-1 in large quantities as a part of our butadiene operations.

You inquired about the butane-butylene separation scheme employed in our Houston plant which results in the isolation of butylene-1 and butylene-2 separately. Our feed stream contains some propane, isobutane, normal butane, isobutyelene, butylene-1, butylene-2, and some pentane. A prefractionator separates the feed stream into an overhead containing the propane, isobutane, isobutylene and butylene-1; and a bottom stream containing the normal butane, butylene-2 and pentane.

Bottom Stream. This stream is sent to a second fractionation where the pentane is separated from the normal butane and the butylene-2. The butane is separated from the butylene-2 by extractive distillation, using furfural as the solvent. The butylene-2 goes with the furfural and is separated from it by distillation.

Overhead Stream. This stream is first treated with 65% sulfuric acid to separate the isobutylene as an acid complex. This acid complex settles out and is heated to regenerate the acid and produce a dimer of isobutylene. The isobutylene-free stream consists primarily of isobutane and butylene-1. These are separated by extractive distillation, again using furfural as the solvent. The butylene-1 goes with the

furfural and is separated by distillation.

Normally, the butylene-1 and butylene-2 are combined and fed to the dehydrogenation unit to produce butadiene. However, we can draw off as much of the butylene-1 as we choose for other use such as the production of polybutylene.

I have given only a bare outline, of course, of the separation procedure which we use, but this will give you a general picture and may be of some interest.

As we mentioned at the time of our visit, we would be glad to show you our butadiene plant at Houston. I understand that your present travel plans for your trip to the United States are quite full and do not include the Texas area. There is, for course, a limit to what you can include in any such trip. Our top management and technical people would like very much to see you in our New York offices while you are there, if you can work that into your plans, and I will be happy to make the arrangements for this if you will let me know. In any case, please do not hesitate to call upon us if there is any way in which we can make your visit to the United States more pleasant or satisfying.

I promised to send you information describing the general nature of the operations of our company. Enclosed is our Annual Report for 1955 and a booklet entitled "Putting Ideas to Work" which may be of some interest.

With my best personal regards,

Very truly yours,

Charles P. Roberts

CPR:pw

WHITEHALL 3-1600

302 A

SIMPSON COAL & CHEMICAL CORPORATION

120 WALL STREET
NEW YORK 5, N.Y.

Ann.

February 20, 1956

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

You will unquestionably recall our correspondence of last summer regarding your new work in polymers and diacids. You pointed out in your letter of July 22 that the patents had been assigned to Montecatini and to Lonza.

We have recently made a very close connection with a large and important independent oil refinery group who had recently branched out into petrochemicals. They have set up a very formidable research organization and would be keenly interested in pursuing research, with an eye to utilizing their basic position in raw materials, such as, natural gas, refinery olefins, and by-products. Are you, therefore, in a position to offer some new ideas for development and exploitation, or is it still possible to participate in furthering your work in propylene polymers and synthetic diacids?

Best personal regards.

Yours very truly,

SIMPSON COAL & CHEMICAL CORPORATION

S. Horne ncj

S. Horne
Chief Engineer

SH:ncj

783 A

REGISTERED TRADE MARK

CABLE ADDRESS:
IGANSHAWIN, LONDON

TELEGRAPHIC ADDRESS:
IGANSHAWIN, FEN, LONDON

TELEPHONES:
ROYAL 6102-3-4

c/o **SHAWINIGAN, LIMITED**

MARLOW HOUSE,
LLOYD'S AVENUE,
LONDON, E.C.3

30th April, 1956.

Prof. Natta,
University of Milan,
Milan,
Italy.

Dear Prof. Natta,

I was in Milan two weeks ago, and had the privilege of a talk with Signor Giustiniani, but unfortunately, was not able to contact you.

I have been told in London that you will shortly be making a visit to the U.S.A. where you will be seeing Prof. Mark of Brooklyn, and will be attending the New Hampshire Research Conference. If this information is correct, the Directors of Shawinigan Chemicals Limited would be very pleased to have the honour, if you can spare the time, of a visit by you to them in Montreal and to our plant and research laboratories at Shawinigan Falls, which is about one hundred miles east of Montreal.

Shawinigan Chemicals Limited is one of the largest producers and users of acetylene for various syntheses in the world and pioneered the industrial use of vinyl acetate and its derivatives and I feel sure you would be interested in seeing the work which we are carrying out.

Prof. Mark knows Shawinigan very well and I believe would speak well of our activities.

If, as we sincerely hope, it would be possible for you to visit us in Canada, would you be so kind as to write to:-

Mr. P.W. Blaylock,
Vice-President Research and Development,
Shawinigan Chemicals Limited,
P.O. Box 6072,
Montreal, P.Q.,
Canada,

...../2

REGISTERED TRADE MARK.

SHAWINIGAN

and tell him what dates would be convenient to you.

Yours very truly,

G. BENSON,
Assistant Vice-President,
Shawinigan Chemicals Limited,
Montreal.

GB/MF

22

September 4, 1956

Ans

Director

Prof. Frederick D. Rossini
Director, Petroleum Research L
Carnegie Institute of Technolo
Schenley Park
PITTSBURGH 13 - Pennsylvania

Dear Professor Rossini,

I received your very kind letter of August 14, and I wish to thank you very deeply for your kindness in sending to me the complete collection of, infrared, ultraviolet, Raman and mass spectra. I am very grateful to you and I wish to assure you that this material will be placed in our library and will be freely available to all my coworkers who may have need of these data.

Thanking you again, I send you my best regards.

Sincerely yours,

Giulio Natta

874A

July 30, 1956

Prof. Frederick Rossini
Carnegie Institute of Technology
Pittsburgh, Pennsylvania, U.S.A.

Dear Professor,

In order to complete our laboratory of molecular spectroscopy, I would like to have the complete collection of infrared, ultraviolet, Raman and mass spectra, published by the "American Petroleum Institute". I shall be very grateful to you, if you could let me know the address to which I hate to write in order to have such a collection.

Please, excuse this trouble. Thanking you in advance, I send you my best regards.

Very truly yours,

Prof. G. Natta, Director

1201A

Ann

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pa.
U.S.A.

July 20, 1956

Professor G. Natta
Instituto di Chimice Industriale,
Politecnico di Milano
Milano, Italy

Dear Professor Natta,

It was indeed fascinating to hear about your recent developments in the field of sterochemically regular polymers at the recent Gordon Research Conference. I would like to congratulate you and your collaborators on your wonderful achievements.

In October 1955, when I was still in Uppsala, Sweden, you most kindly sent me a number of polypropylene samples (fibers, films) to use for demonstration in conjunction with a lecture on "Crystallization of Polymer Molecules" in the Swedish Chemical Society. Since January, I have been working for American Viscose Corporation, Marcus Hook, Pa. as a Research Specialist. My company is, as you know, very interested in the technical use of your new polymers. From your lectures at Colby Junior College, I understand that the polypropylene prepared now, using your process, has properties superior to those of the samples you sent me last year. I would, therefore, be very interested to have some new polypropylene samples*) and I would be very grateful if you could refer this request to the proper department of the Montecatini Corporation. The samples will be used for a study of the morphology of crystallization, a field I have been working in for several years.

Wishing you continued success in your important work, I send my best personal regards also to Mrs. Natta and Professor Pino.

Sincerely yours,

Bengt G. Rånby

Bengt G. Rånby,
Research and Development
Division

BGR:EL

*) 10 - 20 gram samples would be sufficient

P.S. I would be grateful to receive reprints on your work on regular polymer. I have already got J. Am. Chem. Soc. 77, 1708 (1955), Die Naturwiss. Chem. 16, 77 (1955), J. Polymer Sci. 16, 143 (1955), Atti Acad. Lincei IV/C Rendiconti 12, Chimica ed Industria 37, 888 (1955)

1A

July 31, 1956

Mr. Bengt G. Rånby
Research and Development Div.
American Viscose Corporation
MARCUS HOOK, Pa, U.S.A.

Dear Mr. Rånby,

I received your kind letter of July 20, and I am sending you, under separate cover, the reprints you asked for.

I regret not to be able to send you the requested samples, because it is a matter pertaining to Montecatini Co.

I am informed, however, that on of the Presidents of the American Viscose Corporation is negotiating with the General Manager of Montecatini, about polypropylene. I cannot interfere in such a moment, because eventually, samples will be send officially through Montecatini.

With my best personal regards.

inviati 1.8.1956

N. 186 - 190 - 191 - 194 - 195 -
196 - 197 - 198 - 199 - 201 - 202

Sincerely yours,

Giulio Natta

March 8, 1956

Mr. S. Horne, Chief Engineer
Simpson Coal & Chemical Corporat:
120 Wall Street
NEW YORK 5, N.Y., U.S.A.

Dear Dr. Horne,

I received you letter of February 20, and I inform you that, during these months, I am very busy for organizing the researches carried out in my Institute. Therefore, I am sorry but I have neither possibility nor time to look after other works except those we are now developing, and for which I have already engagements with different European Companies.

Best personal regards.

Very sincerely yours,

Giulio Natta

May 9, 1956

Mr. P. W. Blaylock
Vice President Research and
Development
Shawinigan Chemicals Limited
P. O. Box 5072
MONTREAL, P.Q., Canada

Dear Mr. Blaylock,

I received a letter from Mr. T. Benson and I thank you both very much for your invitation to visit your Company. Unfortunately, my schedule is so busy that I do not know if it shall be possible for me to visit you in Montreal. In any case, as soon as I arrive in the United States I shall see whether I may change some already scheduled visit to find time for you, but in this moment I cannot confirm my coming to Montreal

With kindest regards.

Very truly yours,

Giulio Natta

20 Settembre 1956

Egr. dr. Mario F. Sartori
Roma - Via San Remo 18

ESPRESSO

Egregio Dottore,

come promesso, Le invio le fotocopie di due miei ultimi articoli, comparsi sull' Accademia dei Lincei, sulla struttura dei polimeri del butadiene :

-"Sulla struttura di nuovi polimeri a concatenamento 1-4 trans di diolefine coniugate."

-"Polimero cristallino del butadiene a concatenamento 1-2 isotattic

Un mio articolo sulla struttura del butadiene 1-4 cis è in corso di stampa e Le farò l'estratto non appena mi sarà pervenuto.

La prego di porgere i miei saluti alla Sua Signora e Le auguro ottimo viaggio di ritorno.

Cordiali saluti.

(Prof. G. Natta)

n. 2 all/

12 Marzo 1956

Egr. Dr. Mario Sartori
602 Northside Drive, North Hil
WILMINGTON 3, Delaware, U.S.A.

Egregio Dottore,

La ringrazio per la Sua gentile offerta e non mancherò di scriverLe se mi sarà possibile venire a Wilmington.

Ho già ricevuto numerosi inviti da parte di persone della DuPont venute a Milano nello scorso anno, ed anche una lettera da Robert E. Burk che mi invitava a tenere una conferenza a Wilmington. Ho avuto finora oltre venti inviti, oltre ai tre dell'A.A.A.S. per le Gordon Research Conferences, da parte di Università e di Società Chimiche. Non ho ancora deciso il mio programma di viaggii negli U.S.A., certamente non mi sarà possibile visitare tutti quelli che mi hanno invitato, e credo che per non offendere nessuno finirò per non tenere alcuna conferenza presso le Società.

Una parte del mio tempo dovrà dedicarla a visitare degli impianti che mi interessano in modo particolare. Certamente avrò molto piacere di venire a Wilmington, dato che in questi ultimi due anni ho conosciuto diverse persone molto gentili della DuPont, e penso che una mia venuta a Wilmington potrà essere utile nel caso che la DuPont abbia concluso degli accordi con la Società Montecatini, nel campo dei nuovi polimeri. Spero che questa volta, se verrò a Wilmington, mi sarà consentito di vedere qualcosa di interessante e non come nel 1947 in cui non mi è stato fatto vedere altro che delle esposizioni di prodotti. Le assicuro che quella volta ero rimasto molto deluso.

RingraziandoLa ancora per la Sua gentile offerta, Le invio i più cordiali saluti.

G. Natta

138 A

February 15, 1956

Mr. C. Benson, Assistant Vice Pres
Presidenti
Shawinigan Chemical Limited
Shawinigan Falls, Que., Canada

Dear Mr. Benson,

I received your letter of February 8, concerning the interest of your Company in our polymerization work. I inform you that Montecatini Company is looking after the commercial exploitation of my processes. Therefore for all information you need, you may address yourself to the Montecatini Co. (Dr. Ing. P. Giustiniani, Amministratore Delegato, Via F. Turati 18, Milano, Italy).

With best regards.

Very sincerely yours,

(Prof. G. Natta)

CABLE ADDRESS "CARBIDE" MONTREAL
CODES USED
LIEBER'S FIVE LETTER
WORLD'S UNIVERSAL AMERICAN
A.B.C 5TH & 6TH EDITIONS FIVE LETTER
BENTLEY'S COMPLETE PHRASE CODE
BENTLEY'S SECOND PHRASE CODE

ADDRESS ALL COMMUNICATIONS TO
P.O. BOX 6072

SHAWINIGAN CHEMICALS LIMITED

SHAWINIGAN

MONTREAL
CANADA

EXECUTIVE OFFICES,
600 DORCHESTER ST W
MONTREAL, QUE

WORKS
SHAWINIGAN FALLS, QUE.

AIR MAIL

February 22, 1956.

Professor G. Natta,
Istituto Di Chimica Industriale
Del Politecnico,
Piazza Leonard Da Vinci, 32
Milano.

Dear Professor Natta:

Thank you for your letter of February 15 with the information on whom I should write to at Montecatini in order to obtain information on the commercial exploitation of your processes.

Sincerely yours,

G. Benson
Assistant Vice President.

GB:JB

CABLE ADDRESS "CARBIDE" MONTREAL
CODES USED
WATERS FIVE LETTER
WORLD'S UNIVERSAL AMERICAN
A.B.C. 5TH & 6TH EDITIONS FIVE LETTER
BENTLEY'S COMPLETE PHRASE CODE
BENTLEY'S SECOND PHRASE CODE

SHAWINIGAN CHEMICALS LIMITED

OPERATING
CANADIAN ELECTRO PRODUCTS CO. LIMITED
CANADA CARBIDE CO. LIMITED

SHAWINIGAN

EXECUTIVE OFFICES
POWER BUILDING,
MONTREAL.
WORKS
SHAWINIGAN FALLS, QUE.

SHAWINIGAN FALLS, QUE.
CANADA

Feb. 8th, 1956.

AIR MAIL ORIGINAL
(TO BE ACTED UPON)

Prof. G. Natta,
The Milan Polytechnic,
Milan, Italy

Dear Prof. Natta,

My company is very much interested in the information which has been released on your polymerization work especially that on the polymerization of propylene, and I would very much like to have the opportunity of discussing your work with you especially on the possibility of commercial exploitation in Canada.

Shawinigan Chemicals is the largest independent Canadian chemical company and this gives it some advantages in the development of Canadian uses of new processes over firms which are controlled by parent companies in the U.S.A.

I am leaving for London towards the end of this month and expect to spend most of the year in Europe but I would very much like to see you as soon as it is convenient to you and wonder whether I could visit you in Milan sometime during the middle of March.

Yours very truly,

GBenson/lrl

Assistant Vice President

800 A

Ans

STEVENS INSTITUTE OF TECHNOLOGY

HOBOKEN, NEW JERSEY

Department of Chemistry

May 4, 1956

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am making plans to be in Milan on Monday, June 4 in accordance with your kind invitation for me to speak to your group. I shall plan to arrive at your Institute in the morning.

I am sailing on May 11 from New York, but you can reach me by mail in care of -

Until May 22:

Dr. John H. Baxendale
Department of Chemistry
University of Manchester
Manchester 13, England

Around June 1 to 3:

Mr. Stephen H. A. Hirsch
19 Glenalmond House
Manor Fields, Putney Hill
London SW15

With best wishes and pleasant anticipation of visiting your Institute.

Sincerely,

Calvin E. Schildknecht

Calvin E. Schildknecht

CES/cp

428A
Ann.

MARIO F. SARTORI
602 NORTHSIDE DRIVE, NORTH HILLS
WILMINGTON 3, DELAWARE

Wilmington, 8 Marzo 1956

Egregio Professore,

Ho letto nel programma del "Gordon Research Conference of the American Association for the Advancement of Science" che lei terra' delle conferenze nel New Hampshire nei prossimi mesi di giugno e luglio. Se posso esserle di qualche utilita' nell'organizzare il suo programma di soggiorno negli Stati Uniti o durante il suo soggiorno negli Stati Uniti non esiti a scrivermi. Saro' lieto se potro' fare qualcosa per lei.

Mi augur-o che durante la sua permanenza in America lei vorra' fermarsi qualche giorno in Wilmington (due ore di treno da New York, sulla ferrovia New York-Washington). A meno che lei non abbia gia' ricevuto un ufficiale invito dalla Du Pont, io potrei organizzare una visita' alla "Experimental Station" o al "Jackson Laboratory".

Mi e' grato di informarla che i suoi articoli recentemente pubblicati nelle varie riviste tecniche hanno destato vasto interesse tra i chimici del Jackson Laboratory, ove io lavoro.

Coll'augurio di rivederla quest'anno in America la saluto molto cordialmente

Mario Sartori

che mi interessa in modo particolare.
[illegible]

Certamente avrei molto piacere di venire a Wellington.

Con riferimento al viaggio di ritorno dell'On. Prime Minister [illegible] molto gentili. [illegible] un mese a Wellington potrei essere utile nel corso di più e l'On. Prime [illegible] alla conclusione dei lavori in cui [illegible] mi consulti per nuovi problemi.

Spero che questa volta si verifichi

[illegible] Wellington mi sia consentito di vedere qualche interessante e non come nel 1942 in cui non [illegible] mi è stata [illegible] alla [illegible] di prodotti.

La seconda di questa volta era sicuramente molto deluso.

Ringrazio [illegible] per la sua gentile offerta

C.

574A
Sen.

STEVENS INSTITUTE OF TECHNOLOGY
HOBOKEN, NEW JERSEY

DEPARTMENT OF CHEMISTRY

April 16, 1956

Professor Giulio Natta
Institute di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Because of my plans in Europe were uncertain I have been unable to answer your kind letter of March 14 until this time. I am now able to accept your gracious invitation to lecture at the Polytechnic Institute at Milan either on June 4 or June 5. Since I will plan to fly from Britain for only a day, I will be glad to learn which date is more favorable to you.

I can speak principally about "Oriented Polymerizations of Vinyl Ethers," but shall be glad also to discuss some of the related polymerizations of other monomers from the literature and from the recent meeting of the American Chemical Society in Dallas, Texas (where great interest was shown in isotactic polymers).

Since our book "Polymer Processes" went to press, we have found some experimental evidence suggesting that our polymerizations of vinyl isobutyl ether to isotactic polymers using boron fluoride etherate as catalyst occur in a growing internally homogeneous gel phase rather than at an interface. We are investigating this matter further.

With many thanks and pleasant expectations of visiting your laboratories.

Sincerely,

Calvin E. Schildknecht

Calvin E. Schildknecht

CES/cp

P.S. Thanks also for the reprints from Die Makromolekulare Chemie.

405A
Ann.

STEVENS INSTITUTE OF TECHNOLOGY

HOBOKEN, NEW JERSEY

Dept. of Chemistry

March 5, 1956

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am spending the summer in speaking and consulting in Western Europe, and it occurred to me that your group at Milan might be interested in a lecture in slow English upon Isotactic Vinyl Ether Polymerization. Mr. P. H. Dunn and I will report some of our recent work at the A.C.S. meeting at Dallas, Texas in which we do not agree in all respects with mechanisms proposed by you and by Professor Mark (U.S. speeches).

Unfortunately I will not be able to hear your lectures in New Hampshire in July because of European committments. In case your men wish to hear me I will be in Switzerland from June 15 to 22 and I could come down to Milan for a day.

I am sure that you will find in the U.S. great commercial interest in your work. I wish to congratulate you on your most interesting publications and effective research team.

We would be glad to receive your reprints from Die Makromoleculare Chemie.

Sincerely,

C. E. Schildknecht

C. E. Schildknecht

Address in Switzerland: Hotel Bristol Oberland, Adelboden.

[illegible]

Cunard Line
R.M.S. "Parthia"
21 May

c/o S. H. A. Hirsch, Esq.
19 Glenalmond House
Manor Fields
Putney Hill
London SW15

Dear Professor Natta,

Unfortunately I can not visit Milan before May 30, although I shall regret not being able to see you, I shall be glad to visit your institute on June 4 and to speak to your group in accordance with our letters.

I shall come to your Institute in the morning of June 4 and shall be glad for you to arrange for useful discussions with your colleagues.

I trust you will have a very pleasant visit to America. Dr. Alio Buselli of Air Reduction Research is very anxious to meet you at New London. He was born in Milan and speaks Italian. I have discussed the isotactic polymers with him very often.

Best wishes and thanks.

Sincerely, C. E. Schildknecht

May 25, 1956

Professor Calvin E. Schildknecht
c/o Mr. Stephen H. A. Hirsch
19 Clenelmond House
Manor Fields, Putney Hill
L O N D O N SW15 - England

Dear Professor Schildknecht,

I received your kind letter from Manchester, and I regret very much that you are unable to anticipate your visit in Milan. I am very sorry to have no opportunity to meet you in Milan, but all my assistants and other people, interested in your work, are looking forward to seeing you and to have useful discussions with you. Particularly, Prof. Danusso, Ing. Santice, Dr. Corradini and Dr. Dell'Asta are very interested in speaking with you. They will show my Institute to you in the morning and arrange the seminar in the afternoon.

Hoping to have soon an other opportunity to meet you, with my kindest regards and best wishes, I remain,

Very sincerely yours,

Giulio Natta

May 7, 1956

Professor Calvin E. Schildknecht
Department of Chemistry
Stevens Institute of Technology
H O B O K E N = NEW JERSEY = US.

Dear Professor Schildknecht,

Following up my letter of April 23, I inform you that I very deeply regret to be obliged to anticipate my departure to the United States, and so I leave Milan on June 2. Therefore I should be very glad if you may anticipate your coming to Milan, not later than May 30, because May 31 is an Italian holidays If no possible, your may come on June 4; all my assistants and coworkers will be present at my Institute and they are very much interested in hearing your lecture and in having useful discussions with you.

I am glad to inform you that we can pay you an honorarium of Lit.60.000 (about $ 100).

I should appreciate very much, if possible, to meet you in Milan. Hoping to be possible for you to anticipate your coming before my departure, I send you my best personal regards.

Very sincerely yours,

GIULIO NATTA

May 9, 1956

Professor Calvin E. Schildknecht
c/o Dr. John H. Baxendale
Department of Chemistry
University of Manchester
MANCHESTER 13 - England

Dear Professor Schildknecht,

Just now I receive your letter of May 4. I regret very much not to be able to meet you in Milan on June 4, but I hope you may anticipate your coming to Milan.

I send you, enclosed here, copy of a letter I sent you to Hoboken on May 7.

Hoping to have the pleasure to meet you in Milan, I send you my kindest regards.

Very sincerely yours,

Giulio Natta

Encl.

May 9, 1956

Professor Calvin E. Schildknecht
c/o Dr. John H. Baxendale
Department of Chemistry
University of Manchester
MANCHESTER 13 - England

Dear Professor Schildknecht,

Just now I receive your letter of May 4. I regret very much not to be able to meet you in Milan on June 4, but I hope you may anticipate your coming to Milan.

I send you, enclosed here, copy of a letter I sent you to Hoboken on May 7.

Hoping to have the pleasure to meet you in Milan, I send you my kindest regards.

Very sincerely yours,

Giulio Natta

Encl.

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
LOS ANGELES 24, CALIFORNIA

June 8, 1956

Professor G. Natta
Hotel Pierre
New York, New York

Dear Professor Natta,

I understand that you are on a tour of this country and expect to be out in California some time late in July. We are extremely anxious to have you visit us at UCLA and to present a seminar talk, if you would care to do the latter. From our point of view, Thursday, July 26th would be a very suitable date if this would fit into your plans. If you would care to give us a seminar talk, we would be prepared to offer you an honorarium of one hundred dollars.

I remember with pleasure meeting you in Zurich last summer, and we would welcome an opportunity to see you and talk with you and your wife here at UCLA.

Please let us know if we can be of any assistance with hotel reservations and so forth.

Best personal regards.

Sincerely,

S. Winstein

S. Winstein,
Professor of Chemistry

SW:dl
cc: E. Leete

Please avoid conflicts

Consider this point

Westinghouse

ELECTRIC CORPORATION

MICARTA DIVISION

Varie
Americ
86

HAMPTON, SOUTH CAROLINA

September 6, 1956

Mr. Giulio Natta
Milan Polytechnical Institute
Milan, Italy

Dear Sir:

We have been interested in your polypropylene development and would like to see samples of the material and obtain technical information about this material. We are a supplier of polyethylene molded items to the Atomic Energy Commission, and we need more information to answer questions which we have been receiving from various sources.

Very truly yours,

WESTINGHOUSE ELECTRIC CORPORATION

G. W. Burton

G. W. Burton
Engineering Department

GWB/ch

cc Mr. Piero Guistiniani
Managing Director
Monticatini Ltd.
Via Turati 18
Milano, Italy

77 A
America

WICKHEN PRODUCTS, INC.

224 NORTH BROADWAY - MILWAUKEE 2, WISCONSIN
Please reply to - 2344 North Oakland Avenue
Milwaukee 11, Wisconsin

January 13, 1956

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

In addition to Dr. Heinrich's letter of December 8, 1955, I would like to inform you that we are very interested in the research work you are doing in regard to branched chain organic compounds by the oxo process.

As of December 31, 1955, Dr. Heinrich is no longer with our company and I have taken his place.

In April and May I will be in Europe and would very much like to see you to talk with you about the problem mentioned above. Would you please let me know if I can see you in Milano sometime between April 15th and May 28th.

Very truly yours,

WICKHEN PRODUCTS, INC.

O. Jacobi, Ph. D.
Director of Research

OJ:asu

cc: Mr. William F. Buth

840

Amerigo

WICKHEN
PRODUCTS, INC.

224 NORTH BROADWAY - MILWAUKEE 2, WISCONSIN

Please reply to - 2344 North Oakland Avenue
Milwaukee 11, Wisconsin

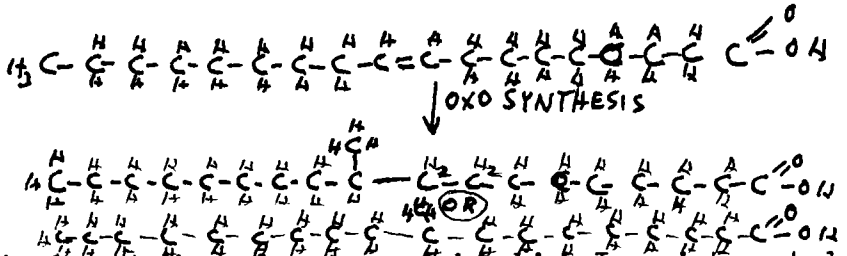
December 8, 1955

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

Thank you very much for your letter regarding the problem of OXO SYNTHESIS.

I do not know whether I made myself understood and in order to clarify the problem I am using the chemical formula of one of the chemical compounds which I would like to have prepared or information as to how to prepare it. The compound which I would like to have is 9 or 10 methyl stearate made by the oxo process.



This is not the only compound in which I am interested but it would be the key compound for all the other ones which we have in mind.

I hope that I have clarified my letter and that you or your collaboraters will be able to help me.

Yours very truly,

WICKHEN PRODUCTS, INC.

H. Heinrich

H. Heinrich, Ph. D.
Vice President

HH:asu

April 23, 1956

Professor Calvin E. Schildknecht
Department of Chemistry
Stevens Institute of Technology
H O B O K E N = NEW JERSEY = USA

Dear Professor Schildknecht,

Many thanks for your kind letter of April 16. I am very glad to have soon the pleasure to meet you in Milan. In regard to the date of your coming, it should be better if you may come on June 4, as I leave Milan on June 5 or 6. I shall try to let you have an honorarium to cover at least in part your expenses for flying from England to Milan and for your staying in Milan. I shall be more precise as soon as possible.

I am very much interested in hearing your lecture about "Oriented Polymerizations of vinyl Ethers" and I am looking forward to having useful discussions with you about problems of mutual interested

Awating the pleasure to meet you in Milan, with the best regards, I am

Very sincerely yours,

Giulio Natta

326 A

March 14, 1956

Professor C.E. Schildknecht
Stevens Institute of Technology
Department of Chemistry
HOBOKEN, New Jersey, U.S.A.

Dear Professor Schildknecht,

I received you letter of March 5, from which I am informed that you will come to Europe next summer, in June. Unfortunately, I shall be in U.S.A. from June 10 to August 10, and I am really very sorry not to be able to be here during your stay in Europe.

If you may be in Europe already before June 5, I should be very glad to meet you in Milan. I also should appreciate if you will give a lecture upon your recent works at the Polytechnic Institute. In this case, an honorarium (about 100 $) could be given to you, as a contribution for your expenses in Milan.

During the month of June, also my principal coworkers will not in Milan, and, in addition, the Polytechnic courses of study will be finished. Therefore, suitable auditors will fail for your lecture.

I am sending you, under separate cover, the required abstract of my paper. I am looking forward to hearing something of your very interesting work. Best personal regards,

Very sincerely yours,

Giulio Natta

THE TEXAS COMPANY
TEXACO PETROLEUM PRODUCTS

BEACON LABORATORIES
C. E. CUMMINGS, SUPERINTENDENT
R. K. FIETSAM, ASST. SUPERINTENDENT
R. L. SAWYER, DIRECTOR OF RESEARCH
B. HEGEMAN, DIRECTOR OF TECHNICAL SERVICES

P. O. BOX 509
BEACON, N. Y.

June 1, 1956

AIR MAIL

Professor Giulio Natta
Polytechnico di Milano
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

Dr. Mitchell and I were very much disappointed by not being able to see you when we visited in Milan last November. Dr. Pino was very kind to tell us in a general way, something about your accomplishments.

I am now planning another brief trip to Europe with Dr. G. B. Arnold who is head of the Chemicals Research Department at our Beacon Laboratories. We shall be in Italy only a few days but I still hope that it will provide an opportunity for Dr. Arnold to meet both you and Dr. Pino. Our tentative schedule calls for us to be in Milan on June 25 and June 26 and we could visit you on either day which might suit your convenience. If you plan to be away at that time and anyone else could tell us something about your work it would be appreciated. I am sure you will understand that we are not seeking any information which you are not free to publish.

With best personal regards, I remain,

Very truly yours,

H. V. Atwell

H. V. ATWELL

HVA-SAK

June 8, 1956

Mr. H. V. Atwell
Beacon Laboratories
The Texas Company
P. O. Box 509
BEACON, N. Y., U. S. A.

Dear Mr. Atwell,

Referring to your letter of June 1 to Prof. Natta, I wish to inform you that Prof. Natta and Prof. Pino are now both in the U. S. A. to attend some Gordon Conferences.

I am sending your letter to Prof. Natta at once, so that he may get in touch with you before your departure to Europe.

You may also write to Prof. Natta at the following address: c/o Chemore Corporation, 21 West Street, New York 6, N. Y.

With best regards.

Very truly yours,

R. Lamma (secretary)

8 x 6 A

July 31, 1956

Mr. H. A. Atwell
The Texas Company
Beacon Laboratories
P.O. Box 509
BEACON, N.Y., U.S.A.

Dear Mr. Atwell,

I am sorry that my busy trip through the States did not permit me to reply to your letter of June 1 before my coming back to Milan.

I regret to have missed the opportunity to meet you and Dr. G.B. Arnold in Milan on the end of June, but I hope to have soon an other opportunity.

With best regards.

Truly yours,

Giulio Natta

616 P

May 30, 1956

Prof. Pierre Van Rysselberghe
Department of Chemistry
University of Oregon
EUGENE - OREGON - USA

Dear Professor Van Rysselberghe,

I received your book: "Electrochemical Affinity", you kindly sent to me and I thank you very much. I shall read it with the greatest interest.

Please accept my kindest regards and best wishes.

Sincerely yours,

Giulio Natta

3

July 31, 1956

Professor S. Winstein
University of California
Department of Chemistry
LOS ANGELES 24 - California

Dear Prof. Winstein,

I enjoyed very much for having made your acquaintance during my very interesting trip through the States.

I wish to thank you very much for your kind invitation to visit your University and to give a seminary talk. As you know, unfortunately, I have been obliged to shorten my stay in your country and, therefore, I regret very much not to have been able to accept your kind invitation.

Hoping to have soon the pleasure to meet you again in Europe or in the States, I send you my best regards.

Sincerely yours,

Giulio Natta

June 1, 1956

Mr. J. T. Walker, Manager
Research and Development
West Virginia Pulp & Paper Co.
230 Park Avenue
New York Central Building
NEW YORK 17, N.Y., U.S.A.

DEAR Mr. Walker,

I received your letter of May 25, that I have sent to the "Settore Progetti e Studi, Società Montecatini - Via F. Turati 18 - Milano (Italy)".

I wish to inform you that the Montecatini Co. possess all the right on my patents concerning isotactic polymers production. Therefore, you may address yourself to the Montecatini, to obtain all the information you need.

Best regards.

Truly yours,

Giulio Natta

June 1, 1956

Mr. E. B. Westlake, Jr, President
WESTLAKE Plastics Co.
West Lenni Road
Lenni Mills, Pa., U.S.A.

Dear Mr. Westlake,

I received your letter of May 25, that I have sent to the "Settore Progetti e Studi - Società Montecatini - Via F. Turati 18 - Milano (Italy)".

I wish to inform you that the Montecatini Co. Po possess all the rights on my paptents, concerning the isotactic polymers production. Therefore, you may address yourself to the Montecatini, to obtain all the information you need.

Best regards.

Tryly yours,

Giulio Natta

January 21, 1956

Mr. O. Jacobi, Ph.D., Director of
Research - VICKHEN Products, Inc.
2344 North Oakland Avenue
Milwaukee 11, Wisconsin

Dear Mr. Jacobi,

I received just now your letter of January 13. I delayed till now my reply to Mr. Heinrich's letter of December 8, because I was away long time for my winter holidays.

I shall be very pleased to see you in Milan durin your stay in Europe, but I beg you tetlet me know early the exacte date of your arriv in Milan. In fact, I shall be in Germany from April 24 to 30, and Isshal leave Milan in the first days of June to participate, in the U.S.A., to three Gordon Conferences and namely: "Organic Reactions and Processes", "High Polymers" and " Elastomers".

In regard to the oxosynthesis, I wish to inform you that our r searches in this field have been applied by the Montecatini Co. in a pla in Ferrara, producing 5.000 t/year of aldehydes. This plant is producin aldehydes C_4 from propylene. In Ferrara, there is also a pilot plant in which it is possible to carry out researches on other olefinis compound If you are interested in this, I may introduce you to the Montecatini.

Many years ago, we carried out in laboratory, the oxosynthesi on oleic acid, by which it is possible to have some C19 compounds:

a) Formylstearic acid: $CH_3(CH_2)_m-\underset{CHO}{CH}-(CH_2)_n-COOH$

or one of its esters: $CH_3(CH_2)_m-\underset{CHO}{CH}-(CH_2)_n-COOCH_3$ where m+n = 15

b) Methylolstearic acid or its esters: $CH_3(CH_2)_m\ \underset{CH_2OH}{CH}-(CH_2)_n-COOP$

c) Dicarboxylic acid or its esters: $CH_3(CH_2)_m-\underset{COOH}{CH}-(CH_2)_n-COOH$

Generally a mixture of isomers is produced, and those with m = 7-8 and n = 8-7 are predominant.

Awaiting the pleasure of making your acquaintance, I send you my best regards,

Giulio Natta

126 A

June 4, 1956

Mr. D. Laurence Wollner, Treas.
Wollun Products Corp.
Johnson Avenue
Carrollton - Georgia - USA

Dear Mr. Wollner,

In the absence of Professor Natta, who started to the U.S.A. for a two month staying, I received your letter of May 31, that I sent to the "Settore Progetti e Studi" - Società Montecatini - Via F. Turati 18 - Milano (Italy).

I wish to inform that the Montecatini Co. possess all the rights on Prof. Natta's patents concerning isotactic polymers production. Therefore, you may address yourself to the Montecatini, to obtain all the information you need.

Best regards.

Truly yours,

R. Lamma (segretary)

USA

1957

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

Office of the Editor

Department of Chemistry
University of Rochester
Rochester, New York

December 31, 1957

Dr. G. Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Piazza Leonardo da Vinci, 32
Milano
ITALY

Dear Dr. Natta:

authors: Natta, Corradini and Bassi
ms.: COMM.ED.: Crystal Structure of the Complex$(C_5H_5)_2TiCl_2Al(C_2H_5)$

Your manuscript has been received. I shall write you of our decision regarding it as soon as possible.

Very sincerely yours,

W. Albert Noyes, Jr.
Editor

Department of Chemistry
University of Rochester
Rochester, New York
U.S.A.

ROCHESTER JAN 2 5 30PM 6 1958 N.Y.

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Dr. G. Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Piazza Leonardo Da Vinci, 32
Milano
ITALY

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER WILL BE SENT BY ORDINARY MAIL

MILANO ARRIVI DISTRIBUZIONE 23 24 5 1958

FIRST FOLD

SECOND FOLD

IF YOU CANNOT RETURN THIS MANUSCRIPT WITH COMMENT IN TWO WEEKS, PLEASE RETURN IT IMMEDIATELY WITHOUT COMMENT

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

PLEASE RETURN SIGNED ORIGINAL AND ONE ANONYMOUS CARBON

COMMENTS OF REFEREE ~~II(2)~~

AUTHOR: Natta, Pino, Mazzanti and Giannini

TITLE: COMM ED: A Crystallizable Organometallic Complex....

COMMENTS:

The revised manuscript of Natta, et al. now shows clearly that the aluminum-titanium complex gives a higher rate of polymerization and a polymer of higher molecular weight than either metal compound alone. The work is of sufficient current interest that it warrants publication as a Communication.

I now note that the authors have ignored one interesting and possibly significant point. Much of the work on the complex Ziegler catalysts (and on the competing commercial catalysts) stresses their insolubility and the heterogeneous nature of the polymerization. Since the present catalyst is apparently readily soluble in the reaction medium (it was crystallized from cold heptane), the questions arise: (1) has the heterogeneous nature of Ziegler catalysts been overstressed, or (2) is this Ti-Al catalyst representative of Ziegler catalysts? I think most chemists would gladly delay publication another two weeks to let the authors add a sentence or two on this issue. On the other hand, Communications are intended to permit rapid publication.

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

April 10, 1957

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonard da Vinci
Milano 32, Italy

Dear Dr. Natta:

COMM ED: A Crystallizable Organometallic Complex.
Authors: Natta, Pino, Mazzanti and Giannini

Your revised manuscript has been received. I shall write you of our decision regarding it as soon as possible.

W. Albert Noyes, Jr.
Editor

Pino

W. Albert Noyes, Jr., Editor
Dept. of Chemistry, U. of R.
River Campus Station
Rochester 20, N.Y., U.S.A.

ROCHESTER APR 11 4 30 PM 1957 N.Y.

AIR MAIL 10¢ U.S. POSTAGE

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonard da Vinci
Milano 32, Italy

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER WILL BE SENT BY ORDINARY MAIL

MILANO 24 15 IV 1957

FIRST FOLD

SECOND FOLD

PLEASE RETURN SIGNED ORIGINAL AND ONE ANONYMOUS CARBON

COMMENTS OF REFEREE I

AUTHOR: Natta, Pino, Mazzanti and Giannini

TITLE: COMM ED: A Crystallizable Organometallic Complex....

COMMENTS:

This communication represents new, interesting material which is certainly significant and timely, and should be published. In the first paragraph, "promoting" is misspelled, and the Greek letter α should be used. "Crystallizible" is also misspelled. Since this communication only reports the polymerization of ethylene, the last part of the paragraph should read "the polymerization of ethylene" rather than "ethylenic double bonds".

In paragraph 2, "crystalline" is misspelled.

In paragraph 5, "cryoscopic" is mispelled.

On the second page, paragraph 4, the abbreviation for atmosphere is atm. In paragraph 4, "tetralin" is misspelled.

I am somewhat concerned about the lack of evidence for the structure of the proposed complex even though it is difficult to fit the analytical data to any other combination. If I were an author, I am certain that I would not include the sentence following the table of analytical data.

"Cryoscopic" is again misspelled in Reference 6.

IF YOU CANNOT RETURN THIS MANUSCRIPT WITH COMMENT IN TWO WEEKS, PLEASE RETURN IT IMMEDIATELY WITHOUT COMMENT

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

PLEASE RETURN SIGNED ORIGINAL AND ONE ANONYMOUS CARBON

COMMENTS OF REFEREE II

AUTHOR: Natta, Pino, Mazzanti and Giannini

TITLE: COMM TO THE EDITOR: A Crystallizable Organometallic Complex Containing Titanium And Aluminum

COMMENTS:

As this communication stands, I am not convinced that it is particularly significant or that "the composition of the complex strongly supports the hypothesis" for the action of Ziegler-type catalysts. If the polymer yields and reaction times for the catalytic effects of $AlEt_3$ alone and $(C_5H_5)_2TiCl_2$ alone were available for comparison, and if the new compound was obviously more effective than either of the metallo-organic compounds alone, then I would recommend acceptance of the manuscript as a communication.

In the absence of such information and in view of the possibility that the new complex is inferior as a polymerization catalyst to $AlEt_3$ alone, the manuscript is not necessarily above "New Compound" or "Note" value. It deserves consideration as a "Communication" only because of the intense and wide-spread interest in anything related to Ziegler catalysis. It should not be accepted without an indication of the reaction time in the single experiment cited.

December 13, 1957

Mr. W. Albert Noyes Jr.
Editor of the Journal of the
American Chemical Society
ROCHESTER 20 - N.Y. - U.S.A.

Dear Mr. Noyes,

I am sending you, enclosed, a brief manuscript on the crystal structure of the complex $(C_5H_5)_2TiCl_2Al(C_2H_5)_2$.

I should be grateful to you if you can publish it as a Communication to the Editor in the Journal of the American Chemical Society.

With best regards,

Sincerely yours,

(Prof. G. Natta)

Encl/

~~Lettera J.A.C.S. (Corradini)~~

Crystal structure of the complex $(C_5H_5)_2TiCl_2Al(C_2H_5)_2$

Sir,

in a preceding letter to the editor of the journal of the American Chemical Society one of us (1) reported on the synthesis o: a soluble crystallizable complex containing titanium and aluminium showing catalytic activity in the polymerisation of ethylene. This fact was taken as supporting our opinion that Ziegler type catalyst are bimetallic complexes. It was also supposed that the two differ metal atoms contained in the crystallisable complex were joined by bridges of the same type as that one present for instance in the monochlorodimethylaluminum dimer (2).

To confirm the above reported hypothesis, we wish to comm nicate some preliminary results of an X-Ray examination of single crystals of the complex $(C_5H_5)_2TiCl_2Al(C_2H_5)_2$.

The unit cell constants are the following :

$\underline{a} = 15,77 \pm 0,08$ Å $\quad \underline{b} = 14,24 \pm 0,07 \quad \underline{c} = 7,54 \pm 0,04$

$\alpha = \beta = \gamma = 90°$

The number of molecules contained in the unit cell is four, and possible space groups are P_{nma} or P_{na} ((0kℓ) reflexi with $k + \ell = 2n+1$ and (hk0) reflexions with $h = 2n+1$ being extinguished).

The space group P_{nma} requires that the molecule contains a mirror plane. In this case Ti and Al must necessarily lye in th plane ($y = 1/4$).

In fact, the Patterson projection on the a-b plane of the interatomic vectors, (fig.1) showing a concentration of the highes peaks along the lines $y = 0$ and $y = \frac{1}{2}$ supports the hypothesis that

./.

heavy atoms are contained in the y = 1/4 plane.

A complete interpretation of the Patterson projection confirms that :

1) P_{nma} must be chosen as the correct space group

2) The position and the weight of the peaks appearing along the lines y = 0, y = ½ may be accounted for on supposing that

$y_{Ti}=y_{Cl_I}=y_{Cl_{II}}=y_{Al}=1/4$ and $x_{Ti}=x_{Cl_I}=0,021$;

$x_{Cl_{II}}=x_{Al}=0,183$ or $x_{Ti}=x_{Cl_I}=0,271$; $x_{Cl_{II}}=x_{Al}=0,433$

Moreover :

1) From the pseudosystematic absence of the reflections hk3 with h=2n it follows, with other restrictions, that $z_{Ti}-z_{Cl_{II}}$ $= z_{Al}-z_{Cl_I} \simeq 0,333$.

2) A Fourier synthesis (fig.2) on th ab plane shows clearly images of the cyclopentadienyl and ethyl groups, which happen to be in suitable positions.

A model of the molecule is shown in fig. 3.

From the model, we may conclude that :

1) Both Ti and Al have a tetrahedral coordination and are joined by bridges of Cl atoms forming a square ring, the Ti-Cl and Al-Cl distances being about 2,5 Å.

2) The plane of a cyclopentadienyl group is perpendicular to the line joining titanium to the center of the group, the five Ti-C distances being all equal and of the order of 2,3 Å

3) Ethyl groups are bonded to the Al atoms.

The cyclopentadienyl groups in this sandwich $\sigma\pi$ -bonded complex are not parallel each other as in ferrocene. The orientation of said groups appears dependent on the type of the hybridization

./.

of the metal atom to which they are bonded. Further structural work for this and other similar compounds is going on in our Laboratory.

Institute of Industrial Chemistry
Polytechnic of Milan

Giulio NATTA
Paolo CORRADINI
Ivano W.BASSI

Bibliography

1) G.Natta, P.Pino, G.Mazzanti, U.Giannini - J.A.C.S., 79, 2975 (1957)

2) G.Natta, P.Pino, H.Mazzanti, U.Giannini - Communication presented at the International Symposium on the Chemistry of coordination Compounds, Roma, September 15-21, 1957.

List of figures

1) Patterson projection on the a-b plane
2) Fourier projection on the a-b plane (only half contours of the heavy atoms are drawn)
3) Model of the molecule corresponding to the Fourier projection.

Milano, December 13, 1957

~~Letters J.A.C.S. (Corradini)~~

Crystal structure of the complex $(C_5H_5)_2TiCl_2Al(C_2H_5)_2$

Sir,

in a preceding letter to the editor of the journal of the American Chemical Society one of us (1) reported on the synthesis o a soluble crystallizable complex containing titanium and aluminium showing catalytic activity in the polymerisation of ethylene. This fact was taken as supporting our opinion that Ziegler type catalyst are bimetallic complexes. It was also supposed that the two differ metal atoms contained in the crystallisable complex were joined by bridges of the same type as that one present for instance in the monochlorodimethylaluminum dimer (2).

To confirm the above reported hypothesis, we wish to com nicate some preliminary results of an X-Ray examination of single crystals of the complex $(C_5H_5)_2TiCl_2Al(C_2H_5)_2$.

The unit cell constants are the following :

$\underline{a} = 15,77 \pm 0,08$ Å $\quad \underline{b} = 14,24 \pm 0,07 \quad \underline{c} = 7,54 \pm 0,04$

$\alpha = \beta = \gamma = 90°$

The number of molecules contained in the unit cell is four, and possible space groups are P_{nma} or P_{na} ((0kl) reflex with $k + l = 2n+1$ and (hko) reflexions with $h = 2n+1$ being extinguished).

The space group P_{nma} requires that the molecule contain a mirror plane. In this case Ti and Al must necessarily lye in t plane ($y = 1/4$).

In fact, the Patterson projection on the a-b plane of the interatomic vectors, (fig.1) showing a concentration of the high peaks along the lines $y = 0$ and $y = \frac{1}{2}$ supports the hypothesis th

heavy atoms are contained in the y = 1/4 plane.

A complete interpretation of the Patterson projection confirms that :

1) P_{nma} must be chosen as the correct space group

2) The position and the weight of the peaks appearing along the lines y = 0, y = ½ may be accounted for on supposing that

$y_{Ti}=y_{Cl_I}=y_{Cl_{II}}=y_{Al}=1/4$ and $x_{Ti}=x_{Cl_I}=0,021$;

$x_{Cl_{II}}=x_{Al}=0,183$ or $x_{Ti}=x_{Cl_I}=0,271$; $x_{Cl_{II}}=x_{Al}=0,433$

Moreover :

1) From the pseudosystematic absence of the reflections hk3 with k=2n it follows, with other restrictions, that $z_{Ti}-z_{Cl_{II}}=z_{Al_I}\simeq 0$

2) A Fourier synthesis (fig.2) on th ab plane shows clearly images of the cyclopentadienyl and ethyl groups, which happen to be in suitable positions.

A model of the molecule is shown in fig. 3.

From the model, we may conclude that :

1) Both Ti and Al have a tetrahedral coordination and are joined by bridges of Cl atoms forming a square ring, the Ti-Cl and Al-distances being about 2,5 Å.

2) The plane of a cyclopentadienyl group is perpendicular to the line joining titanium to the center of the group, the five Ti-C distances being all equal and of the order of 2,3 Å

3) Ethyl groups are bonded to the Al atoms.

The cyclopentadienyl groups in this sandwich $\sigma\pi$ -bonded compl are not parallel each other as in ferrocene. The orientation said groups appears dependent on the type of the hybridisation

./.

of the metal atom to which they are bonded. Further structural work for this and other similar compounds is going on in our Laboratory.

Institute of Industrial Chemistry
Polytechnic of Milan

Giulio NATTA
Paolo CORRADINI
Ivano W. BASSI

Bibliography

1) G. Natta, P. Pino, G. Mazzanti, U. Giannini - J.A.C.S., 79, 2975 (1957)

2) G. Natta, P. Pino, H. Mazzanti, U. Giannini - Communication presented at the International Symposium on the Chemistry of coordination Compounds, Roma, September 15-21, 1957.

List of figures

1) Patterson projection on the a-b plane
2) Fourier projection on the a-b plane (only half contours of the heavy atoms are drawn)
3) Model of the molecule corresponding to the Fourier projection.

Milano, December 13, 1957

April 29,

Mr. W. Albert NOYES, Jr.

Editor of the Journal of the
American Chemical Society
c/o Department of Chemistry
University of Rochester

ROCHESTER 20 - N.Y. - U.S.A.

U. 94 24

Dear Mr. Noyes,

The growing interest in the chemistry of metal carbonyls has led us to investigate fér a wonvenient synthesis of chromium hexacarbonyl, a compound hitherto somewhat difficult to be prepared. We believe that the short paper enclosed may be of interest for all those chemists needing of large samples of said carbonyl.

We should be very grateful to you for the publication of the paper on the Journal of American Chemical Society, preferably as a "Communication to the Editor".

Despite our efforts, minot changes in the language of the manuscript could be necessary, and we agree in advance with the corrections you would suggest.

Thanking you in advance, I am,

Yours sincerely,

(Prof. G. Natta)

No. 3 encl/

A NEW SYNTHESIS OF THE CHROMIUM HEXACARBONYL

Sir,

we wish to report a new synthesis of chromium hexacarbonyl starting from easily available chromium compounds which appear to have been converted now for the first time, into the hexacarbonyl.

At present the only well described method for this synthesis is the "Grignard method" discovered by Job and Cassal[1] and substantially improved by Owen and coworkers[2]. Recently Fischer and Hafner[3] synthesized the carbonyl starting from chromium bis-cyclopentadienyl (no yield reported). Both these valuable methods suffer from some disadvantages as the unsatisfactory over-all yields[4], or the requirement of a rather involved procedure for preparing the suitable starting material.

We have now observed[5] that chromic acetylacetonate, chromic and chromous salts of organic acids such as acetic and 2-ethylhexanoic can be easily reduced and converted into the hexacarbonyl under high pressure of carbon monoxide if pyridine or related bases are employed as a reaction medium.

Our method consists in dissolving (or suspending) anyone of the above compounds in pyridine, containing catalytic amounts of halogens or halogenated substances. The mixture is then reacted at 80 - 170°C with an excess of powdered magnesium or zinc and 100 - 300 atm of carbon monoxide. When soluble chromium compounds are employed the yields are as high as 80 - 90 %

./..

We believe the base to play an essential role in the synthesis because intermediates pyridine containing ~~carbonyls~~ complexes are formed in the course of the reaction.

It is also noteworthy that the hexacarbonyl as such is still present in substantial quantities in the end products of the reaction. This seems not to happen in the synthesis by the Grignard method, the hexacarbonyl, in this case, being produced uniquely after the hydrolisis of the reaction mixture[4].

Experimental

Chromium acetylacetonate g 17,5, magnesium g 4,5 and g 80 of a 2 % solution of iodine in dry piridine are charged in a stainless steel oscillating autoclave of ml 500 capacity. After removal of air, oscillation is started and pure oxygen-free carbon monoxide is compressed into the vessel up to a pressure of 190 atm. The autoclave is then warmed up to 160°C within one hour and maintained at this temperature (±2°C) for six hours, while pressure drops from 325 to 285 atm. After cooling and venting, the hexacarbonyl and the other reaction products are quantitatively transferred into a 3 l two necked distillation flask with the aid of a large amount of water. On distillation of the mixture, the white hexacarbonyl is drained off. The distillate is filtered, washed with chilled methanol and paper dried. Sublimation of the powder at 70 - 75°C at 15 mm Hg affords g 9,0 of pure chromium hexacarbonyl in coarse crystals (Yield 82 %).

1) A.Job and A.Cassal, Compt.Rend., 183, 392 (1926)

2) B.B.Owen, J.English, Jr., H.G.Cassidy and C.Vanderbilt Dundon, this Journal, 69, 1723 (1947)

./..

3) E. O. Fischer and W. Hafner, Zeit. Naturf., 10 b, 140 (1955)

4) W. H. Cumming, J. A. Horn and P. O. Ritchie, J. Appl. Chem., 2, 624 (1952)

5) Italian patent application N. 671, February 4, 1957 (to Montecatini S.p.A.)

Milan, April 26, 1957

G. NATTA

R. ERCOLI

F. CALDERAZZO

A. RABIZZONI

Department of Industrial Chemistry
Polytechnic Institute of Milan (Italy)

A NEW SYNTHESIS OF THE CHROMIUM HEXACARBONYL

Sir,

we wish to report a new synthesis of chromium hexacarbonyl starting from easily available chromium compounds which appear to have been converted now for the first time, into the hexacarbonyl.

At present the only well described method for this synthesis is the "Grignard method" discovered by Job and Cassal[1] and substantially improved by Owen and coworkers[2]. Recently Fischer and Hafner[3] synthesized the carbonyl starting from chromium bis-cyclopentadienyl (no yield reported). Both these valuable methods suffer from some disadvantages as the unsatisfactory over-all yields[4], or the requirement of a rather involved procedure for preparing the suitable starting material.

We have now observed[5] that chromic acetylacetonate, chromic and chromous salts of organic acids such as acetic and 2-ethylhexanoic can be easily reduced and converted into the hexacarbonyl under high pressure of carbon monoxide if piridine or related bases are employed as a reaction medium.

Our method consists in dissolving (or suspending) anyone of the above compounds in pyridine, containing catalytic amounts of halogens or halogenated substances. The mixture is then reacted at 80 - 170°C with an excess of powdered magnesium or zinc and 100- 300 atm of carbon monoxide. When soluble chromium compounds are employed the yields are as high as 80-90%.

./.

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

April 22, 1957

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonard da Vinci
Milano 32, Italy

Dear Dr. Natta:

Ms: COMM ED: A Crystallizable Organometallic Complex...
Authors: Natta, Pino, Mazzanti and Giannini

Your revised manuscript has been accepted and dispatched to the printers. It is tentatively scheduled to appear in the May 1957 issue of the Journal.

Enclosed you will find a copy of the report from one of the referees of the original version. If you wish to make the addition suggested by the referee, please write us at once.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG:ehs
Enc. Comments Referee II(2)

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

March 20, 1957

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonard da Vinci
Milano 32, Italy

Dear Dr. Natta:

Ms: COMM ED: A Crystallizable Organometallic Complex...
Authors: Natta, Pino, Mazzanti and Giannini

This manuscript has now been examined with the aid of reports from two independent referees, and we are enclosing copies of their comments.

Referee II has raised some objection to the manuscript and apparently feels that it is somewhat premature. We should be glad to accept it if the additional information he thinks necessary can be supplied. It seems possible that you may have such information at hand.

The manuscript is returned herewith. Please submit revision in duplicate.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG:ehs
Enc. ms. orig.
Comments Referees I and II

Varie America

April 27, 1957

Mr. Marshall Gates, Asst. Editor
Journal of the American Chemica Society
Department of Chemistry
University of Rochester
ROCHESTER 20 - NEW YORK - U.S.A

Rif.n.903/rl

Dear Mr. Gates,

Many thanks for your letter of April 22, about the publication of our manuscript "A crystallisable Organometallic Complex...", and I am glad that this paper may appear in the May 1957 issue of your Journal.

We prefer not to make the addition suggested by the referee, whose report you enclosed, because this problem is too complex to be fully treated in a Communication to the Editor.

With best regards, I am,

Sincerely yours,

Giulio Natta

We believe the base to play an essential role in the synthesis because intermediates pyridine containing complexes are formed in the course of the reaction.

It is also noteworthy that the hexacarbonyl as such is still present in substantial quantities in the end products of the reaction. This seems not to happen in the synthesis by the Grignard method, the hexacarbonyl, in this case, being produced uniquely after the hydrolisis of the reaction mixtures[4].

Experimental

Chromium acetylacetonate g 17,5, magnesium g 4,5 and g 80 of a 2 % solution of iodine in dry piridine are charged in a stainless steel oscillating autoclave of ml 500 capacity. After removal of air, oscillation is started and pure oxygen-free carbon monoxide is compressed into the vessel up to a pressure of 190 atm. The autoclave is then warmed up to 160°C within one hour and maintained at this temperature (± 2°C) for six hours, while pressure drops from 325 to 285 atm. After cooling and venting, the hexacarbonyl and the other reaction products are quantitatively transferred into a 3 l two necked distillation flask with the aid of a large amount of water. On distillation of the mixture, the white hexacarbonyl is drained off. The distillate is filtered, washed with chilled methanol and paper dried. Sublimation of the powder at 70-75 °C at 15 mm Hg affords g 9,0 of pure chromium hexacarbonyl in coarse crystals (yield 82 %).

./.

1) A. Job and A.Cassal, Compt.Rend., 183, 392 (1926)

2) D.B. Owen, J.English, Jr., H.G.Cassidy and C.Vanderbilt Dundon, this Journal, 69, 1723 (1947)

3) E.O. Fischer and W.Hafner, Zeit. Naturf., 10 b, 140 (1955)

4) W.H. Cumming, J.A.Horn and P.O. Ritchie, J.Appl.Chem., 2, 624 (1952)

5) Italian patent application N. 671, February 4, 1957 (to Montecatini S.p.A.)

G.NATTA

R. ERCOLI

F. CALDERAZZO

A.RABIZZONI

Milan, April 26, 1957

Department of Industrial Chemistry
Polytechnic Institute of Milan (Italy)

MONTECATINI

SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

ANONIMA - CAPITALE VERSATO L. 84.000.000.000

MILANO

BREVETTI E DOCUMENTAZIONE TECNICA

MILANO, (134)
Via F. Turati, 18

Si prega indirizzare
Please reply to
Veuillez adresser
Adressieren Sie bitte wie folgt:
Montecatini
BREVETTI
Via Turati, 18
Milano (Italia)

Télégrammes - Telegramme - Cables: GABBROBREV - MILANO

22 Febbraio, 1957

Egr. Signor
Prof. Giulio NATTA
Direttore Istituto Chimica Ind.
Politecnico di
MILANO

Oggetto: Lettera all'editore del J.Amer.Chem.Soc.

Ci riferiamo alla Sua del 15 corr. per informarLa che abbiamo esaminato la lettera in questione, la cui pubblicazione ci sembra non incontri ostacoli dal punto di vista brevettuale.

Siamo d'opinione che sia opportuno portarla a conoscenza del Prof. Ziegler prima della pubblicazione sulla rivista.

Con i migliori saluti.

"MONTECATINI"

Lettera ci sembra da pubblicare senza riserve

Invio al Prof. Ziegler copia della lettera all'editore

appena ricevremo comunicazione della sua autorizzazione in proposito

6

BELL TELEPHONE LABORATORIES

INCORPORATED

MURRAY HILL LABORATORY

MURRAY HILL, NEW JERSEY

CRESTVIEW 3-6000

W. O. BAKER
VICE PRESIDENT-RESEARCH

November 27, 1957

PROFESSOR GUILIO NATTA
Instituto di Chimica Industriale del Politechnico
Piazza Leonardo da Vinci
Milano 32, Italia

Dear Professor Natta:

We were delighted, indeed, to learn that you are planning another trip to the United States next spring. I remember, of course, the special pleasure of the brief visits we had at the Gordon Research Conference a few years ago, which were a pleasant extension of the score of years in which we have had mutual interest in the structure of chain polymers. Naturally I hope to have a chance to extend this opportunity and pursuit of this intriguing subject. In addition, many of my colleagues are pursuing polymer research, which has been greatly stimulated by your distinguished discoveries of recent years. Altogether then, if your schedule permits, we would be greatly honored to have you spend a day with us at our Murray Hill Laboratories located about twenty-five miles west of New York City. Arrangements will, of course, be made for you to come out by company car.

Drs. Biggs and Winslow join me in sending their best regards. They thoroughly enjoyed their stimulating morning visit to your laboratories and their attendance as your guests at a memorable Rotary Club meeting. With warm personal greetings, I am

Sincerely yours,

W. O. Baker

risposto - 2 dicembre 1957
ringrazia - non sa
ancora se potrà venire -
Confermare o disdire

USA

Gran Hotel Velasquez
Madrid, Spain
October 23, 1957

Professor Giulio Natta
Istituto Di Chimica
Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Dr. Winslow and I wish to thank you for the many courtesies extended to us during our visit to Milan last week. We enjoyed our tour of your laboratory and particularly our discussions with you. It is a rare privilege indeed to discuss the possibilities of this new field with the man primarily responsible for its creation.

It was also an interesting experience to attend the meeting of the Milan Rotary as your guests. This was a memorable event in spite of the fact that we were not able to understand the speaker.

We sincerely hope that on the occasion of your next trip to America you will come to Murray Hill and give us an opportunity to return your hospitality.

Very truly yours,

B. S. Biggs

B. S. Biggs
Assistant Chemical Director
Bell Telephone Laboratories

b

N

BELL TELEPHONE LABORATORIES
INCORPORATED
463 WEST STREET, NEW YORK 14, N. Y.
CHELSEA 3-1000

July 8, 1957

FREDERICK B. LLEWELLYN
ASSISTANT TO PRESIDENT

PROF. G. NATTA
Instituto Chimica Ind. del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

Two members of our Research Department are planning a trip to Europe this fall. Dr. B. S. Biggs is Assistant Chemical Director. He has charge of polymer research and development. Dr. F. H. Winslow is head of a group working on polymer chemistry.

They would like to visit your laboratory in Milan and discuss new polymers with you and some of your people. I believe Dr. Winslow already has met you. We were sorry you did not manage to visit our Murray Hill Laboratory when you were in the United States. Perhaps we may look forward to seeing you at some future time.

Would you let me know whether this visit to you by Dr. Biggs and Dr. Winslow would be agreeable, and whether Tuesday, October 15th, would be a suitable date.

Thank you for your cooperation.

Sincerely,

F. B. Llewellyn

Franceschini
Dr. 723.246 — h. 10 = 15 ottobre —
va bene —

Resubmit to JACS 12/6/5

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

Dear Author:

Enclosed herewith is proof of your recently accepted Communication to the Editor, without the MS. (which we always retain for checking purposes) and without any last-minute changes which you may have sent in. Please correct and return it at once; also return the reprint form, or a memorandum of how many copies are wanted. It is listed for use in the forthcoming issue, now being paged up, we expect page proofs in a few days, and cannot withhold it. It is possible that we will have to release it for printing before this proof is received back; if so we will correct the type before printing the reprints.

Allen D. Bliss
Assistant Editor

Organic Synthesis

Am. Chem. Soc.

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

(Natta, Ciochi, Baldessarro, (Am.) Robinson)

Dear Author:

Enclosed herewith is proof of your recently accepted Communication to the Editor, without the MS. (which we always retain for checking purposes) and without any last-minute changes which you may have sent in. Please correct and return it at once; also return the reprint form, or a memorandum of how many copies are wanted. It is listed for use in the forthcoming issue, now being paged up, we expect page proofs in a few days, and cannot withhold it. It is possible that we will have to release it for printing before this proof is received back; if so we will correct the type before printing the reprints.

Allen D. Bliss
Assistant Editor

resubmit to JACS 12/6/57

697

April 2, 1957

Mr. Marshall Gates, Asst. Editor
Department of Chemistry
University of Rochester
River Campus Station
ROCHESTER 20 - NEW YORK - N. Y.-USA

Dear Mr. Marshall Gates,

I received your kind letter with the remarks of two Referees to our Communication :
" A crystallizable organometallic complex containing Titanium and Aluminum ".

I have appreciated very much the comments of the two Referees and I think that referee 2 is right in requiring the indication of the duration of the ethylene polymerisation experiment, that I had not included.

To satisfy the requirements of referee 2 I would like to include also a table in which ethylene polymerisation experiments using asccatalyst $Al(C_2H_5)_3$ alone, $Ti(C_5H_5)Cl_2$ alone and the complex $C_5H_5)_2TiCl_2.Al(C_2H_5)_3$, are reported.

I enclose two copies of the revised manuscript; please correct eventual misspelling.

Sincerely yours,

Giulio Natta

N. 2 encl/

A crystallizable organometallic complex containing titanium and aluminum

Sir,

Following our preceding researches (1) concerning the nature of the catalytic agent promoting the α-olefines polymerization, we have isolated a crystallizable compound containing titanium, aluminum and organometallic bonds, which causes the polymerization of ethylene.

By reacting 0.01 moles of bis (cyclopentadienyl) titanium dichloride (2) suspended in 50 ml n-heptane with 0.025 moles of triethylaluminum at 70°C, in the absence of air and of moisture, a slow gas evolution takes place, the titanium compounds is dissolved and the solution becomes dark-blue. By cooling the solution at -50°C a blue crystalline solid has been obtained in good yield.

The macroscopic blue needles of the compound, recrystallized four times from n-heptane, melt at 126-130°C without appreciable decomposition.

The blue compound contains titanium, aluminum, chlorine and organic goups; from the elementary quantitative analysis a ratio Ti:Al:Cl = 1:1:2 has been found.

The values 331 and 339 have been calculated for the molecular weight of the blue compound from two different cryoscopic measurements in benzene.

By reacting the blue product with 2-ethylhexanol, ethane is evolved; a quantitative gas volumetric determination shows that two moles of ethane are evolved per mole of compound.

By reacting the product with anhydrous hydrochloric acid in ether solution bis (cyclopentadienyl) titanium dichloride is formed in almost quantitative yield (more than 90%).

./.

The analytical data and the chemical behaviour agree very well with a formula $(C_5H_5)_2\ TiCl_2Al(C_2H_5)_2$, as shown in the following table : for $(C_5H_5)_2\ TiCl_2Al(C_2H_5)_2$.

Cl %	calc. 21.22	found	21.02 (3)	20.78(4)
Al %	8.073		7.92	7.90(3)
Ti %	14.33		14.34	14.55(3)
$-C_2H_5$ %	17.40		16.07	17.67(5)
mol. weight	334		331	339 (6)

It seems probable that, in the complex, both C_5H_5- groups are bound to the titanium atom and that both C_2H_5- groups are bound to the aluminum atom.

By polymerizing ethylene in heptane solution in the presence of 0.6 g of the Ti-Al complex at 40 atm and 95°C after a reaction time of 20 hours, 8.4 g of white polymer have been obtained, which has been fractionated by boiling solvents extraction (acetone extractable fraction 10.1%; ether extractable fraction 1.8%, carbon tetrachloride extractable fraction 17.20%, residue 70.9% having intrinsic viscosity in tetraline at 135°C = 1.55 x 100 ml/g).

As it is reported in the following table $(C_5H_5)_2\ TiCl_2$ alone is completely inactive for the ethylene polymerization; $Al(C_2H_5)$, accordingly with previously published data (7), does not give solid polyethylene in the reaction conditions, but only low molecular weight oily polymers. Comparative experiments were carried out at 95°C and 40 atm.

./.

Soluble catalyst		Solvent		Reaction time hours	Crystalline polyethylene g	oily polymers g
type	moles	type	cm^3			
$(C_5H_5)_2TiCl_2$	0,005	benzene	100	20	0	0
$Al(C_2H_5)_3$	0,05	n-heptane	300	8	0	11,07(1)
$(C_5H_5)_2TiCl_2$, $Al(C_2H_5)_2$	0,003	n-heptane	40	8	7	0,4

(1) 66% of the product consists of hydrocarbons lower than decane

Although the complex is a catalyst for the ethylene polymerization, less active than the catalyst prepared from $TiCl_4$ and $Al(C_2H_5)_3$, the composition of the complex strongly supports the hypothesis that the Ziegler type catalysts (8) for the polymerization of ethylene are, generally, bimetallic complexes containing organometallic bonds.

Istituto di Chimica Industriale
del Politecnico di Milano

Giulio Natta
Piero Pino (9)
Giorgio Mazzanti (10)
Umberto Giannini (10)

(1) G. Natta, P. Pino, E. Mantica, F. Danusso, G. Mazzanti, M. Peraldo - La Chimica e l'Industria, 38, 124 (1956)

G. Natta, P. Pino, G. Mazzanti, E. Mantica, M. Peraldo - La Chimica e l'Industria, 39, 19 (1957)

(2) G. Wilkinson, G. M. Birmingam, J. Am. Chem. Soc., 76, 4281 (1954)

/

(3) Decomposition of the complex by H_2SO_4 5%; titanium has been determined as titanium cupferrate, aluminium as 8-oxyquinolinate , chlorine by gravimetric determination (U. Ubaldini, F. Capizzi, Chimica e Industria, 37, 779 (1955)

(4) Decomposition of the complex by Na_2O_2, chlorine has been determined by Volhard's titration.

(5) By gas volumetric determination.

(6) By crioscopic determination in benzene solution.

(7) G. Natta, P. Pino, M. Farina - Supplemento Ric. Scient., 25, 120 (1955)

(8) K. Ziegler, Belgian Patent 533.362, K. Ziegler, E. Holzkamp, H. Breil, H. Martin, Angew. Chem., 67, 541 (1955)

(9) Istituto di Chimica Generale, Università di Pisa.

(10) "Montecatini" Società per l'Industria Chimica e Mineraria, Milano.

332 bis
Ans.

13th. February, 1957

Mr. W. Albert NOYES Jr.
Editor of The Journal of the
American Chemical Society
ROCHESTER 20, N.Y.

Dear Mr. Noyes,

I send you a brief manuscript on a new titanium and aluminum complex which polymerizes ethylene.

I would be grateful to you if you can pubblish it as a Communication to the Editor in the Journal of the American Chemical Society.

With best regards,

Sincerely yours

(Prof.G.Natta)

Encl.

UNIVERSITY OF MARYLAND
COLLEGE PARK

DEPARTMENT OF CHEMISTRY

March 29, 1957

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politechnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

I want to thank you for your continued interest in the hydrogenated polydimethylcyclohexane that we prepared. I am very happy to be able to send you a small sample for your studies. The material probably is not highly crystalline but you may be able to obtain enough for your x-ray studies. I would be extremely interested in the results of your work.

Thank you very much for the opportunity to work with you.

Very truly yours,

William J. Bailey

William J. Bailey
Professor Organic Chemistry

WJB:hmg

Risponderò quando avrò esaminato il campione

UNIVERSITY OF MARYLAND
COLLEGE PARK

DEPARTMENT OF CHEMISTRY

January 16, 1957

Dr. Giulio Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32-
Milano, Italy

Dear Dr. Natta:

It was a pleasure to meet you and talk to you during the recent Gordon conference this summer. I am particularly interested in your research and want to compliment you on your very excellent results that you reported.

It is true that I presented a paper at Atlantic City meeting on a new polymer I believe to contain syndiotactic segments. I had no proof that it contains these syndiotactic segments other than the simple inductive reasoning from the stereo chemistry of hydrogenation reactions. This polymer was produced by the hydrogenation of poly-1, 2-dimethylenecyclohexane to the following scheme. After you see if the hydrogen adds in cis manner to the double bond the two carbon atoms must have the opposite configuration and therefore syndiotactic reagents should result. However these reagents are not the same as the syndiotactic polymers made from alpha olefins since asymmetric carbon atoms are adjacent. For this reason it might not be possible to compare the two directly. In view of this if you are still interested in obtaining a 3 to 5 gram sample, I would be very happy to send it to you.

I want to thank you for the reprints of the papers that you send me and wish you the best of everything in the New Year.

Very truly yours,

William J. Bailey

William J. Bailey
Professor Organic Chemistry

WJB:hmg

Ringrazio per la sua lettera del 16 c.m. e per la sua comunicazione ~~[illegible]~~ allegata ~~[illegible]~~ gentile prima del ~~[illegible]~~ suo nuovo polimero. Appena le circostanze saranno tali da consentirmi di completare il lavoro

Vista mi
chiedo se
brevetti, contenuto
chimica di carbonio
[illegible]

Mai 24, 1957

Dr. Robert H. MARCHESSAULT
American Viscose Corporation
Research and Development Division
MARCUS HOOK - PENNSYLVANIA - U.S.A.

Dear Dr. Marchessault,

with reference to your requests of Prof. Natta's reprints, I wish to inform you that I am sending to you, under a separate cover, a copy ofthe paper; "The structure of crystalline 1,2 Polybutadiene and of other Syndyotactic Polymers", J. Polymer Sci., 20 (1956).

No copies are available of the paper "Stereospezifische Katalysen and Isotaktische Polymere.

202

Truly yours,

R. Lamma (secretary to Prof. Natt

Dall'archivio G. F. Novarese

December, 2, 1957

Mr. W.O. BAKER
Vice President Research
BELL TELEPHONE LABORATORIES
Murray Hill Laboratories

MURRAY HILL - New Jersey (USA)

Ref.n.2040/el

Dear Mr. Baker,

I received your kind of November 27, and I thank you very much for your kind invitation to visit your Murray Hill Laboratories.

Till now I had not decided my travel schedule, but as soon as possible I shall inform you whether I have the possibility to accept you very appreciated invitation. Please convey my best regards to Drs. Biggs and Winslow, that I met with great pleasure last October in Milan.

With my best personal wishes,

Sincerely yours,

(Prof.G.Natta)

July 12, 1957

Mr. Frederick B. LLEWELLYN
Assistant to President
BELL TELEPHONE LABORATORIES
463 West Street
NEW YORK 14 - N.Y. - U.S.A.

Rif. No. 1326/rl

Dear MR. LLewellyn,

I received your kind letter of July, 8, 1957. I inform you that I shall be very pleased to meet Dr. B.S. Biggs and Dr. F.H. Winslow during their trip to Europe next fall.

I cannot assure you, however, at present, if I shall be in Milan on October 15. If I shall be away in that period, my assistants will receive Dr. Biggs and Dr. Winslow.

Hoping to have the pleasure to meet them, With my best regards also for you, I am,

Sincerely yours,

Giulio Natta

W. O. BAKER
Vice President Research
BELL TELEPHONE LABORATORIES
Murray Hill Laboratories
MURRAY HILL- New Jersey - U.S.A.

Ricevo la Sua gentile lettera del 27 novembre e la ringrazio per il suo cortese invito di venire a visitare il vostro Laboratorio di ricerche di Murray Hill .

Non ho ancora stabilito il mio programma di viaggio ma vi prometto appena mi sarà possibile di informarvi e di precisarvi se avrò tempo di accettare il vostro gentile invito.

La prego di porgere molti cordiali saluti a Mr. Biggs e Mr.Winslow che sono stato lieto di avere visto a Milano nell'ottobre scorso.

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

February 18, 1957

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonarda da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Ms: COMM ED: A Crystallizable Organometallic Complex....
Authors: Natta, Pino, Mazzanti and Giannini

Your organic Communication to the Editor has been received. We shall write you of our decision regarding it as soon as possible.

Please send us another copy of your manuscript.

W. Albert Noyes, Jr.
Editor

W. Albert Noyes, Jr., Editor
Dept. of Chemistry, U. of R.
River Campus Station
Rochester 20, N. Y., U. S. A.

ROCHESTER FEB 19 4 PM 1957

AIR MAIL 10¢

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Pizza Leonardo da Vinci
Milano 32, Italy

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

MILANO 15-16 22-11 1957 ARR.

AIRBONE INSTRUM. LAB.

N° 1829

In risposta alla vostra lettera del 29 Ottobre vi informo che la produzione del polistirolo isotattico ad alta temperatura di fusione non viene; ancora effettuata su scala commerciale.

Per avere dei campioni potete rivolgervi alla Società Montecatini - Ing. ORSONI Direttore Settore Progetti e Studi, Via Turati 18 - Milano.

Gradite distinti saluti.

Airborne Instruments Laboratory
INCORPORATED
160 OLD COUNTRY ROAD · MINEOLA, N.Y.
TEL. PIONEER 2-0600 · TWX G CY NY 2455 · CABLE CODE AIRLAB

29 October 1957

Professor Giulio Natta
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Sir:

In your article "How Giant Molecules are Made", in the September 1957 issue of "Scientific American" on page 102, you briefly mention a crystalline form of polystyrene, with a high melting point.

Such a material could probably be used to make an excellent capacitor, nearly ideal for one of our present applications. I would be much obliged for any pertinent information which you might have. I am especially interested in locating sources of supply for such materials, either in the United States or in Europe.

Very truly yours,

AIRBORNE INSTRUMENTS LABORATORY, INC.

Robert A. Bernay

Robert A. Bernay
Electrical Engineer
Radar Tracking Task Force

RAB/sm

CHEMORE CORPORATION

TELEPHONE
HANOVER 2-5275

21 WEST STREET
NEW YORK 6, N. Y.

CABLE ADDRESS
"GABBROUSA"

6 Maggio 1955

Egr. Sig.
Dott. Ing. Bartolomeo Orsoni
Settore Progetti e Studi
Montecatini Soc. Gen.
Via F. Turati 18
Milano

i. De Varda
prof. Natta

Egregio Ingegnere,

Mi ha visitato il Sig. G.S. Schaffel, Manager of Research della Brea Chemicals Inc. di Brea, California.

Come Ella sa si tratta di una sussidiaria della Union Oil Company of California.

La Brea Chemicals e' molto interessata a non perdere l'autobus dei polimeri cristallini e per quanto io abbia ribadito al Sig. Schaffel che ogni discussione in merito sarebbe prematura egli ha manifestato il desiderio di renderLe una visita per allacciare relazioni personali in vista di possibili sviluppi futuri.

Il Sig. Schaffel sara' a Milano verso la fine di giugno e La preavvisera' del suo arrivo.

Cordiali saluti.

Lucio Lucini

LL:it

Impossibile trattarlo!

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
BERKELEY 4, CALIFORNIA

November 20, 1957

Professor Giulio Natta
Instituto di Chimica Industriale del Politecnico
Piazzo Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

Professor Melvin Calvin has told me that you may be able to visit us and to present a talk to our Tuesday Evening Research Conference sometime next April. I would like to repeat his invitation to you to speak to us. As a start in making these arrangements, could you tell us the approximate duration of your visit here. If you do indeed have a Tuesday evening available and if you will be able to present a talk to us, then we can discuss other matters such as topic, facilities, etc., after we settle upon some particular date.

We are looking forward to your visit here. I shall be very happy to help with arrangements in any way.

Sincerely yours,

Harold S. Johnston

Harold S. Johnston

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
AND CHEMICAL ENGINEERING
BERKELEY 4, CALIFORNIA

November 8, 1957

USA

AIR MAIL

Professor Giulio Natta
Instituto di Chimica Industriale del Politnecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

I have just learned that the possibility exists that you will be visiting in the neighborhood of Berkeley and San Francisco perhaps next Spring, about the time of the Chemical Society meeting here.

I would like to take this opportunity to extend an invitation to you on behalf of the Department of Chemistry to pay us a visit here in the department and perhaps speak to us at our department Research Conference which takes place on Tuesday evenings at 7:30 p.m. Professor H. S. Johnston of our department is in charge of the arrangements for this conference and he will be getting in touch with you with regard to the particular day and other arrangements such as stipend, etcetera, which might be of interest to you.

I do hope that it will be possible for you to visit us.

Greetings and sincerely yours,

Melvin Calvin

Melvin Calvin
Professor of Chemistry

MC:mf
cc Professor H. S. Johnston
Department of Chemistry
Berkeley, California

February 19, 1957

Professor William H. BAILEY
University of Maryland
Department of Chemistry
College Park - Maryland - USA

Dear Professor Bailey,

Many thanks for your kind letter of January 16 and for the information you give to me your new polymer, having probably a syndiotactic structure. I should appreciate very much receiving, if it is not an excessive trouble for you, a 3 to 5 grm sample of this product. As soon as we receive we will examine it in order to enlarge our knowledges on the lattice structure of compounds containing regular sequences of asymmetric carbon atoms.

With best personal regards and wishes, I am,

Very sincerely yours,

Giulio Natta

America

November 5, 1956

Professor William J. Bailey
University of Maryland
College Park - Maryland, U.S.A.

Dear Mr. Bailey,

I have been informed by some American friends of mine, that at the Atlantic City Congress you presented a very interesting paper about a new polymer, poly-1-2-dimethylenecyclohexane, which you consider a syndiotactic one.

If you have not planned a Xray investigation on the new polyme structure , we should be very glad to do it if you can send to us a sample (3-5 gr.). If your polymer may be drawn into fibers, a drawn fiber a few inchs long is sufficient for the examination. Of course, I shall inform you about the results of X ray or electron diffaction, before an eventual joint publication.

I should be also very grateful if you may let me know which method you chose to hydrogenate quantitatively the unsaturated polymer.

I am sending you, under separate cover, some reprints of my papers on isotactic and syndiotactic polymers.

With best personal regards, I am,

Sincerely yours,

Giulio Natta

4/11/56

November 6, 1957

Mr. Robert A. Bernay
Airbone Instruments Laboratory
Radar Tracking Task Force
160 Old Country Road
MINEOLA, N.Y. - U.S.A.

Rif. No. 1829/rl

Dear Mr. Bernay,

With reference to your letter of October 29, I wish to inform you that the isotactic polystyrene, with high melting point, is not yet commercially produced.

To obtain the required samples, you may address yourself to : Dr. B. Orsoni, Direttore Settore Progetti e Studi, Società Montecatini, Vie F. Turati 18 - Milano.

With best regards.

Very truly yours,

G. Natta

936

1530 Oakwood Pl.
Deerfield, Ill.
U. S. A.

March 28, 1957

Professor Giulio Natta
The Montecatini Company
Ferrara
Italy

Dear Professor:

Recently I read that you will soon begin production of a new polypropylene textile fiber which will sell at about half the cost of nylon and which will have about the same strength characteristics.

Enclosed is a sample of 210 denier nylon yarn with zero twist such as I use for reinforcing paper. The enclosed reinforced paper has reinforcing bands made of three strands of the 210 denier nylon or in other words there is 630 denier in each band.

Could you supply me with a sample cone or tube of your polypropylene fiber with a denier of somewhere between 200 and 800 and with zero twist so I can spread the filaments out into wide, thin reinforcing bands? I would like to try your new fiber for reinforcing paper. It is quite possible that your new fiber would be ideal for my product and be less costly, than the nylon.

Please advise tensile strength of your new fiber in grams per denier - elongation percentage at failure - what temperature can it stand without serious injury to its strength - does this fiber shrink when wetted with water - what happens to this fiber if it is subjected to 150 to 180 degrees Fahrenheit temperature? Are you going to license any Company in this country to make your polypropylene fiber?

Very truly yours,

Arthur E. Carlson

Arthur E. Carlson

Mr. SCHIFFLER

CALIFORNIA RESEARCH CORPORATION

S.FRANCISCO

6/11/57

N° 1841/gg

Egregio Sig.Schiffler,

ricevo la sua lettera del 31/10/57 relativa al gentile invito di visitare il vostro Laboratorio a San Francisco e La ringrazio molto.

E' molto probabile che io parteciperò al meeting XXX A.C.S.

In tal caso se potrò anticipare la mia venuta(in California)potrò fare la lettura all'Università di California. Mi riprometto di scrivere a Mr. K.S.Pitzer a questo riguardo.

La ringrazio vivamente e le invio distinti saluti.

G/NATTA

scrivere anche a Pi

CALIFORNIA RESEARCH CORPORATION

A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY

200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

October 31,1957

W. H. SHIFFLER
VICE-PRESIDENT

Meeting ACS

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you kindly for your letter of October 23, 1957, and for the copies of the lectures presented in September at the meeting on the Chemistry of Complexes in Rome, which we have received under separate cover. Also, for the English translation of your paper presented at this meeting that you gave to me during my visit in Milan. We find these papers very interesting and appreciate your kind thoughts in making them available to us. They are being sent to our Richmond laboratory for the review and use of our technical staff.

The American Chemical Society is having its national spring meeting in San Francisco April 16 to 18, 1958. Should you attend this meeting it would be an excellent opportunity for you to visit with us and report the work you have done on our polymer to our spectroscopists. If this can be arranged, we will be pleased to help with your expenses in the amount of $500.00.

I have also mentioned the possibility of your attendance at the ACS meeting to the University of California with the idea that they may wish you to give a lecture to their faculty. They are receptive to the idea and have suggested that a lecture would best meet their timing if given early in the week following the ACS meeting. Dr. K. S. Pitzer suggested that you write directly to him if you are interested.

Again I wish to thank you for the very delightful dinner at your home, and the many other courtesies extended to me during my last visit in Milan.

With best regards.

Yours very truly,

W H Shiffler/JK

scrivere a Pitzer

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

August 23, 1957

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of August 2, 1957, in which you discuss the differences between your X-ray determinations and ours. It is of interest that you have observed in your photographs the variations of the measured values for the period along the c axis, according to the layer line on which it was determined. You and Dr. Pasquon have both told us that other authors have met with this phenomenon in other polymers, and we are quite anxious to know if the additional determinations you plan to make show the same result.

Again we wish to express our great appreciation for the time and effort you are giving to the studies on the crystallization of our polymer. We are very grateful to have your interest and assistance on this problem.

We wish to thank you for the copy of your excellent lecture which was presented at the XVI International Congress of Pure and Applied Chemistry in Paris. We have read the paper with great interest, and we are impressed with the detail and thoroughness with which you have pursued this field of chemistry. It is an outstanding contribution to our knowledge.

With best personal regards,

Yours very truly,

W H Shiffler

Pasquon

November 19, 1957

Mr. Melvin CALVIN
Professor of Chemistry
University of California
Department of Chemistry and
Chemical Engineering
BERKELEY 4, California

Ref.n.1902/

Dear Professor Calvin,

many thanks for your very kind letter of November 8, and for the very appreciated invitation to visit your Department of Chemistry. Most probably I shall come to the United States, and to attend the Chemical Society Meeting in San Francisco.

As soon as I arrange my travel schedule, I shall write again to you and also to Professor H.S.Johnston. I shall be very pleased to visit your Institute and also to give eventually a lecture, if I may come to California before the meeting, or stay some days after.

Looking forward to seeing you next spring, I send you my best personal wishes.

Sincerely yours,

G.Natta

April 29, 1957

Rif.n.936/~~M~~1

Mr. Arthur E. CARLSON
1530 Oakwood Pl.
DEERFIELD, Ill. - U.S.A.

Dear Mr. Carlson,

please excuse my delay in answering your letter of March 28, 1957, about reinforced paper.

I think that the polypropylene, for its characteristics, may be used for reinforcing paper. This product differ from nylon, as it has greater elastic initial modulus and greater elongation at break. The low price of polypropylene will allow certainly ~~its~~ many uses, in the future, in the place of the nylon.

I wrote to the Montecatini Co, who possesses all licenses on my patents in Italy and in U.S.A., and informed them about your request of polypropylene samples.

With best regards.

Sincerely yours,

Giulio Natta

Shiffler

Prima di partire in vacanza desidero mandarLe due righe per informarLa della situazione dei lavori sulle vostre poliaamidi.

Come Mr.Pasquon ha già avuto occasione di precisare a Mr.Rutheford a Milano e successivamente a Mr.Edeleanu a Parigi, il lavoro ha dovuto subire una piccola sosta perchè il chimico che avevo assunto per effettuare le misure sui vostri prodotti ha dovuto interrompere le sue attività nel mio Istituto. Purtroppo in Italia non è molto facile trovare una persona specializzata nel campo.

Attualmente abbiamo comunque potuto riprendere il lavoro e entro breve avremo qualche risultato concreto.

Dopo la vostra lettera del 15 Aprile scorso, nella quale mi informavate di alcune discrepanze tra le nostre misure ai raggi X e le vostre, ho fatto ripetere i fotogrammi e si è osservato, sui due tipi di poliammidi (con acido sebacico e con acido adipico), una sensibile variazione del valore misurato per il periodo lungo l'asse C a seconda dello strato sul quale veniva determinato sui fotogrammi. Questo fatto è già stato riscontrato da altri autori su altri polimeri ma poichè la cosa si presenta raramente ed è difficilmente spiegabile, voglio fare ripetere le misure, sottoponendo a stiro le fibre e ripetendo eventualmente le misure con apparecchiature diverse. Quando avrò dati sicuri glieli comunicherò. In ogni caso si è osservato, attraverso le misure di densità, che il periodo da noi dato in un primo tempo, che era stato misurato sugli strati più lontani dall'equatore, che dànno in genere risultati più esatti,

è certamente troppo elevato. Le vostre misure sono invece maggiormente in accordo con le nostre misure di densità. Anche in questo campo abbiamo riscontrato inizialmente qualche difficoltà dovuta alla facilità con la quale le poliammidi assorbono diverse sostanze polari. Pensavo inoltre di poter studiare i fenomeni di cristallizzazione del vostro prodotto, con i raggi X ma i diagrammi di intensità che si ottengono impiegando anticatodi di rame, non si prestano assolutamente ad una risoluzione esatta, al contrario di quanto avevamo riscontrato per altri polimeri cristallini.

Come lavoro immediato pensavo di insistere sui seguenti punti :

1 - cinetica della cristallizzazione con misure di densità

2 - Determinazione dei ΔH e dei ΔS di fusione

Rimanderemmo invece un eventuale studio completo della struttura a più tardi.

Le confermo che ci interessa da un punto di vista generale di esaminare dei prodotti quali quelli da voi inviati, in quanto essi ci potranno consentire di estendere e di completare le nostre conoscenze sulle relazioni tra proprietà e cristallinità negli alti polimeri.

La ringrazio delle notizie che mi dà relative all'acido chetopimelico, ottenuto dall'acido succinico, che avevo mandato, poichè ci interessavano le possibilità di applicazioni dei derivati dell'acido succinico. Poichè il prezzo di costo prevedibile per

l'acido succinico potrà risultare molto basso, penso che sia soprattutto interessante prendere in considerazione i possibili impieghi diretti di questo acido.

Pasquon (in visione) rispondere! NN

CALIFORNIA RESEARCH CORPORATION

A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY

200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

July 23, 1957

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

We have completed some research which will be of interest to you on the 100 gm sample of your ketopimelic acid mentioned in your letter of March 6, 1957.

We first condensed the ketopimelic acid as received with paraxylylenediamine, and hydrogen sulfide was evolved. The acid apparently contained some impurity as shown by the melting point of 116-128°C (literature 142-143°C), a strong odor and a yellow color in solution. It contains 0.6% sulfur in the form of inorganic sulfates. To remove these impurities for other polyamide condensations, we recrystallized the acid, obtaining a melting point of 144-144.5°C. The recrystallized acid was then condensed with metaxylylenediamine and octamethylenediamine. In all cases the product was a highly colored insoluble solid, infusible at 325°C. Apparently the keto group reacts with the amine to form an imine, and thus gives a crosslinked polymer. In the early stages of condensation, the reaction mixture turned a brilliant yellow, characteristic of the reaction products of amines with ketones or aldehydes.

From our experience the ketopimelic acid does not appear satisfactory for the formation of linear polyamides.

Mr. Rutherford wishes to express his appreciation for the courtesies extended to him during his visit to Milan. It was a pleasure to visit with Dr. Pasquon and learn of the work you are doing on the crystallization properties of our polyamides. The trip through the Institute, and the delightful lunch with Mrs. Natta, were most enjoyable.

We are indeed sorry to learn of your illness, and wish you a rapid recovery.

With best personal regards.

Very truly yours,

W H Shiffler

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

May 27, 1957

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

My assistant, Mr. J. T. Rutherford, plans to visit Europe this summer. He will arrive in Milan by plane about 9:20 a.m. June 28 and will be stopping at the Hotel Principe e Savoia. I would appreciate it very much if you or one of your men could arrange to visit with Mr. Rutherford. He will get in touch with you by telephone and arrange for such a visit on the afternoon of the 28th, if this is convenient to you.

With best regards.

Very truly yours,

W H Shiffler

Cordiali
e cordiali
saluti

CALIFORNIA RESEARCH CORPORATION

A SUBSIDIARY OF
STANDARD OIL COMPANY OF CALIFORNIA

200 BUSH STREET, SAN FRANCISCO 4, CALIFORNIA

W. H. SHIFFLER
VICE PRESIDENT

February 6, 1957

Professor Guilio Natta
Politecnico Istuto di Chimica
Piassi Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

I have the opportunity to be in Milan February 18 - 19, and I shall telephone you from the Hotel Principe e Savoia to see whether a short visit would be convenient with you.

Messrs. Cope and Condit were very enthusiastic about your work after their visit with you in December. They are preparing a letter about new additional samples, etc., and we should have written before this to thank you very kindly for the visit.

I look forward very much to seeing you, and hope this time will be convenient.

With best regards to your and Mrs. Natta.

Very truly yours,

W H Shiffler

CELANESE CORPORATION OF AMERICA

Manufacturers of Celanese *Brand Products*
REG. U.S. PAT. OFF.
P. O. BOX 8
CLARKWOOD, TEXAS
TELEPHONE CORPUS CHRISTI TULIP 4-6692

CHEMICAL DIVISION
PETROLEUM CHEMICALS RESEARCH
AND DEVELOPMENT DEPARTMENT

October 9, 1957

OUR REF. CRL 3099

Sr. G. Mazzanti
Instituto di Chimica Industriale
del Politecnico
Milano, Italy

Dear Sr. Mazzanti:

We are quite interested in your two articles: "Copolimerizzazione dell'etilene con le alfa-olefine alifatiche, Nota I e Nota II" which appeared in the September 1957 issue of LA CHIMICA E L'INDUSTRIA. Would you be so kind as to send us reprints if they are available?

Very truly yours,

CELANESE CORPORATION OF AMERICA

Frank S. Wagner

Frank S. Wagner, Technical Librarian

bb

223-24 Mg-230

Ann.

USA

The Florida State University

Tallahassee

I5 Dicembre I957

Dr.Enrico Clementi
DEPARTMENT OF CHEMISTRY

Preg.mo Prof.Giulio Natta
Istituto di Chimica Industriale
Politecnico
Piazza L. Da Vinci
Milano

Preg.mo Professore,

durante questo mio soggiorno a Tallahassee ho conosciuto il dott. Carlo Colombini. Questi è un post-doctor italiano alla Florida State University; rimarrà in U.S.A. per ancora circa un anno. Dopo ha intenzione di ritornare in Italia e lavorare nel reparto ricerche di qualche industria. Per tale motivo sarebbe contento di entrare in contatto con Lei, nella speranza di poter lavorare alla Montecatini, sede Politecnico possibilmente.

Il dott. Colombini si è laureato nel '55 a Bologna (con il Prof.Bonino lavorando in spettri I.R. di aldeide salici= lica ed isomeri) quindi è stato per un anno in Germania alla Byk-Gulden Chemische Fabrik G.m.b.H. a Costanza (nuovo metodo di sintesi di certi antiepilettici). Si trova ora da oltre un anno qui alla Florida State University presso il Prof.H.M.Wal= borsky (studi su meccanismi di reazione: riduzione di una serie di ciclo epoxi-esteri con $LiAlH_4$ e $LiBH_4$). Quest'estate proba= bilmente frequenterà un corso di radiochimica al centro atomico di Oak-Ridge.- Ha ottima conoscenza della lingua tedesca ed ingle= se.

Personalmente penso che sia una persona dotata di capacità, di esperienza e di buona volontà.

Il dott. Colombini gradirebbe di ottenere una ri= sposta da Lei a questa mia lettera, in modo da iniziare contatto con Lei direttamente. L'indirizzo è il seguente:

Dott. Carlo Colombini
Chemistry Department
Florida State University
Tallahassee, Florida U.S.A.

Le rinnovo i miei migliori auguri di buone feste. Per l'anno nuovo sarò già a Berkeley in California.

Con ogni stima

Enrico Clementi

Enrico Clementi

The Florida State University

Tallahassee

3 Agosto 1957

DEPARTMENT OF CHEMISTRY

hc/EC

Preg.mo Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
M i l a n o

Egregio Professor Natta,

Finalmente ho ottenuto la conferma che nel prossimo gennaio 1958 potrò iniziare un nuovo anno di specializzazione all'University of California in Berkeley. Poichè la borsa di studio è offerta dall'Atomic Energy Commission ho dovuto attendere gli usuali mesi per ottenere il benestare della F.B.I.- Così incomincerò con il Prof. Kenneth S.Pitzer un lavoro, che non sò ancora se sarà di carattere teorico o sperimentale (con ogni probabilità, teorico)

Se mi sarà possibile in seguito vorrei avere un anno di specia= lizzazione in risonanza magnetica nucleare, possibilmente presso la stessa sede in California.

In riferimento alla Sua del 7/5/57, sono perfettamente con Lei d'accordo nel non chiedere un rinvio della borsa Montecatini prima di avere deciso la data esatta del mio ritorno.(Leggo nella Sua "eventuale ritorno;" vorrei precisare che il ritorno sarà certo).

A parte le invio una copia del Abstract del Symposium di Columbus e una serie di note sulla teoria dei gruppi con applicazione a studi di vibrazioni molecolari; suppongo che l'Ing. Mantica sia interessato nell'ultima.

Con ogni ossequio

Enrico Clementi

P.S. Il mio indirizzo dal 1° gennaio 1958 sarà:

Enrico Clementi
University of California
Radiation Laboratory
Berkeley 4, California

da leggere

The Florida State University

Tallahassee

20 Aprile 1957

DEPARTMENT OF CHEMISTRY
E.Clementi

Chiarissimo Signor
Prof. Giulio N a t t a
Ist.to di Chimica Ind.le del
POLITECNICO DI MILANO

Egregio Professore,

La ringrazio della Sua del 5/12/56 nella quale mi inviava copia della proroga della borsa di Studio Montecatini. Il motivo del mio silenzio è causato dal fatto che in quel periodo mi stavo interessando per ottenere una borsa di studio per il 1958. Lei mi aveva suggerito il nome del Prof. Calvin (University of California -Berkley) per via di certi lavori su catalisi, che potrebbero interessare. Come sa il Prof. Calvin si interessa attivamente in fotosintesi; dato la mia specializzazione in spettroscopia (proprio in stati molecolari metastabili) e il mio lavoro di tesi di laurea (fisica dello stato solido) una borsa di studio col Prof.Calvin avrebbe significato senz'altro che avrei dovuto interessarmi di studi sul processo fotosintetico e non di catalisi. D'altra parte una mia insistenza per lavorare su catalisi stereospecifiche avrebbe inso= spettito il Prof. Calvin (come apprendo dalla Sua del 3/10/56).

Mi sono così indirizzato verso il Prof. Pitzer (Decano della Facoltà di Chimica e di Ingegneria della University of California). Il Prof. Pitzer lavora in spettri rotazionali, vibrazionali, rotazioni interne, spettri elettronici, termodinamica e chimica quantica sia teoricamente che sperimentalmente. Giorni or sono il Prof. Pitzer mi offrì la borsa di Studio per il 1958, condizionata però alla approvazione della Commissione per l'Energia Atomica. Questo comporta un'attesa di circa 3 mesi per avere il nulla osta della suddetta Commissione. La terrò informata di ogni ulteriore sviluppo.

Per quanto riguarda la borsa di studio della Soc.Montecatini prorogatami alla fine del 31 dicembre 1957 non ho mai risposto dato che sino ad ora non è definita la data del mio ritorno (e se non sbaglio posso usufruire di tale borsa solo lavorando con Lei).

Sto preparando in collaborazione col Prof. Kasha un articolo di rassegna su stati molecolari metastabili (sul tipo dei Review Paper del Chemical Review), che desidererei pubblicare su rivista italiana. Pensa che articoli di rassegna possono venire pubblicati sulla Gazzetta Chimica Italiana?

Qui ho appena finito alcuni lavori di spettroscopia speri= mentale (una nota apparirà nel prossimo numero di Jurn.Chem.Phys. e due articoli ne seguiranno), e attualmente sto iniziando un lavoro teorico sulla vita media di molecole aromatiche in stato metastabile (stato di tripletto).

Con l'occasione Le faccio i miei più sentiti auguri pasquali ed invio i migliori saluti.

Enrico Clementi

Collins & Aikman
CORPORATION
210 MADISON AVENUE, NEW YORK 16, N. Y.
EXECUTIVE OFFICES

January 30, 1957

Professor Giulio Natta
Milan Polytecnic University
Milan, Italy

Dear Professor Natta:

It was brought to my attention that you are producing a new polypropylene fiber which is stated to be the least expensive of those recently developed and that this yarn may eventually replace jute and hemp.

I would appreciate it if you would forward me further information in regards to this new fiber letting me know in what deniers it is available and also in what lengths it can be obtained. Is it made in the bright, semi-dull and dull? What types of dyestuffs are used to color this new fiber and what is its cost?

I would also appreciate receiving information on the other characteristics of this fiber and any printed information that you may have.

Could you send me samples of the various deniers and types available as to enable us to determine if it will fit into our program?

Very truly yours,

COLLINS & AIKMAN CORP

Arthur F. McNally

Arthur F. McNally

AMcN/bp

"POLYMER"
INDUSTRIE CHIMICHE SOCIETÀ PER AZIONI
CAPITALE L. 4.500.000.000 I. V.
SEDE SOCIALE: MILANO

MILANO, 26 febbraio 1957
VIA FILIPPO TURATI, 18

Egr. Signor
Prof. Giulio NATTA
Istituto Chimico Industr.
Politecnico di Milano
Piazza Leonardo da Vinci
C i t t à

RIFERIMENTI
DIREZIONE GENERALE | SL/se

Egregio Professore,

risposta telefonica Larcher 5.3.57 con Benestare

ho ricevuto la Sua lettera del 21 corr. con lettera 30 gennaio della Collins & Aikman di New York, che chiedeva notizie e campioni sulla fibra di polipropilene.

Allego alla presente la predetta lettera in restituzione, unitamente a copia di quanto noi scriveremmo direttamente alla predetta ditta, sulla falsa riga di quanto scritto, per una analoga richiesta, alla Sidney Blumenthal and Co. di New York, dal Sig. Ing. Orsoni.

Tengo comunque in sospeso la lettera, in attesa di una Sua telefonata di benestare per l'invio.

Ben cordialmente

rispondere che ricaduto le comunicazioni e a mano [illegible] il benestare

Ing. Silvio Larcher

Alleg.: lettera Collins & Aikman
30.1.57 in restituzione.
copia ns. risposta 26 corr.

AIR MAIL

IN REPLY PLEASE QUOTE
CARDE 904-4

DEFENCE RESEARCH BOARD

CANADIAN ARMAMENT RESEARCH AND
DEVELOPMENT ESTABLISHMENT

DEPARTMENT OF NATIONAL DEFENCE
CANADA

P.O. Box 1427
Quebec, P.Q.

29 May 1957

Signor Giulio Natta
Instituto di Chimica Industriale del
Politecnico di Milano
Milan, Italy

Dear Signor Natta:

I would be very pleased if you could forward me a copy of your paper "Basic Italian Research on New Synthetic Elastomers" which you presented at the International Synthetic Rubber Symposium held in London, England, March 26-28, 1957.

Yours sincerely,

Lionel A Dickinson

Lionel A. Dickinson
for/Chief Superintendent

posso mandarlo quando avremo i reprints?

Risponda che non abbiamo ancora gli estratti e che lo invieremo appena pronto

100M—4-56 (56-2088)

KEEP

KEEP CHEMICAL COMPANY

50 EAST 78TH STREET, NEW YORK 21, N.Y. BUTTERFIELD 8-1884

March 18, 1957

Mr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Mr. Natta:

I regret very much to inform you of the death of your friend Dr. M. M. Rosten. He passed away on March 5th. I know this news is sad for you and members of your family who knew him well.

As you know from a letter he sent to you several weeks ago, he was still pursuing his many interests in the field of industrial chemicals. I shall continue in our endeavors to advance certain project ideas that we have had in the course of development for sometime.

Should at any time our services be helpful to you, please do not hesitate to bring these requests to our attention.

Yours very truly,

Peter J. Ferrara

Peter J. Ferrara

PJF:hd

OFFICES OF

HAMMOND & LITTELL

TELEPHONE MURRAY HILL 7-1567
CABLE ADDRESS "MONDTELL"

350 MADISON AVENUE
NEW YORK 17, NEW YORK

U. S. AND FOREIGN PATENTS
AND TRADE-MARKS

Enfrancho

December 7, 1956

Dr. Patrizio Gallone
Oronzio de Nora Impianti Elettrochimici
Via Bistolfi 35
Milan, Italy

Re: Case No. 267.010 - Giulio Natta - Ser. No. 444,859

Dear Dr. Gallone:

We enclose two copies of an amendment which we filed in the above application in response to the Office Action of May 25, 1956. You will note that we have not materially changed the claims because we saw no real reason for doing so. In the "Remarks," however, we forcefully and aggressively argued against the Examiner's objections and attempted to show him that his rejections are improper and not well taken.

With best wishes, we are

Yours very truly,

HAMMOND & LITTELL

By _____

WGW:EDD
Encls.

By Boat Mail

Mr. L.J. Heidt
Dept. of Chemistry
R.4.146 M.I.T
Cambridge 39 -
Massachusetts

La ringrazio della sua gentile lettera del 20 Sept. 57 e le invio una copia della conferenza che ho tenuto a Parigi per l'inaugurazione del XVII° Congresso ~~[illegible]~~ di chimica Pura e Applicata.

In quella conferenza ho ~~illustrato~~ riassunto i risultati ottenuti in questi ultimi anni nel mio Istituto nel campo della polimerizzazione stereospecifica e penso che essa ~~[illegible]~~ sia "representative of ~~[illegible]~~ mine present research interests".

M

November 6, 1957

Mr. W.H. SHIFFLER, Vice President
CALIFORNIA RESEARCH Corp.
200 Bush Street
SAN FRANCISCO, 20 - California

Ref.n.1841

Dear Mr. Shiffler,

Many thanks for your letter of October 31, and your very kind invitation to visit your Laboratory in San Francisco, that I appreciate very much.

Most probably I will attend the Meeting of American Chemical Society next April in San Francisco. If I may anticipate my coming to California, I shall glad to give a lecture to the University of California. I shall write to Mr. K. Pitzer on this argument.

Thanking you again, I send you my best wishes

Very sincerely yours,

G. Natta

Ruina

August 2, 1957

Mr. W. H. SHIFFLER, Vice President
CALIFORNIA RESEARCH CORPORATION
200 Bush Street
SAN FRANCISCO 20 - California

Dear Mr. Shiffler,

before leaving Milano for my summer holidays, I wish to drop a line to you to inform you about our works on your polyamides. As Mr. Pasquon has already told to Mr. Rutherford in Milan and successively to Mr. Edeleanu in Paris, our work had to suffer a little pause, because the chemist I charged with doing the determina on your compounds, was obliged to suspend his activity in my Institu Unfortunately, in Italy it is not very easy to find people experienc in such a field. In any way, at present we have been able to do the work again and in a short time we will have some positive result.

After your letter dated April 15, 1957, in which you let me know about some differences between our X-Rays determinations and yours, I had the photograms done again and we observed for two different types of polyamides (from sebacic and adipic acids) a remarkable variation of the measured value for the period along the c axis, according to the layer line on which it was determined on the photograms. Some authors have already met with this fact about other polymers, but, as it seldom happens and is very difficult to explain, I want to have the determinations done again, after stretching the fibres, and eventually with a different apparatus. As soo as I get sure results, I will inform you. In any way, we observed, through density determinations, that the period we already gave to you, and which had been measured on a layer line more distant from the equator (which give generally more exact results), is surely too high. Your determinations on the contrary agree more with our

./.

August 2, 1957

density determinations. In this field as well, we met, at the beginning, some difficulties owing to the aptitude of poliamides to absorb different polar substances. I thought also to be able to study the phenomena of crystallization of your product, by X-Rays but the diagrams of intensity obtained using a copper anticathode, are not at all suitable for an exacte resolution, instead of what we observed for other crystalline polymers.

In regard to the present work, I had in mind to insist on the following points :

1) Kinetics of crystallization with density determinations;
2) Determination of fusion ΔH and ΔS.

I should delay an eventual complete study of structure.

I wish to confirm you that we are interested, from a general point of view, in examining products like those you sent to us, as they will enable us to extend and complete our knowledge on relationship between properties and crystallinity in high polymers.

I thank you for the information you gave me about ketopimelic acid, from succinic acid, I sent you, as we were interested in the possible use for succinic acid derivatives. As the foreseen price for succinic acid will probably result very low, I think it would be very interesting to study the possible direct use of this acid.

With best personal regards, I remain,

Sincerely yours,
Giulio Natta

June 4, 1957

Mr. W. H. SHIFFLER, Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Rif. No. 1124/rl

Dear Mr. Shiffler,

your letter of May 27, 1957, reached me only today, as I am at present out of Milan, being convalescent. I hope to be able to come back to Milan before June 28, and I shall be pleased to meet your assistant Mr. Rutherford. If I am away, some assistant of mine will get in touch with Mr. Rutherford to arrange a visit to our Institute.

With best regards.

Very truly yours,

Giulio Natta

5

California

March 6, 1957

Mr. H. Shiffler, Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 4 - California

Dear Mr. Shiffler,

I wish to inform you that I am sending you, under a separate cover, a 100 gr sample of ketopimelic acid for your research work.

With best regards.

Sincerely yours,

Giulio Natta

February 11, 1957

Mr. W. H. Shiffler, Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 4 - California

Dear Mr. Shiffler,

I receive just now your kind letter of February 6, and I am looking forward to seeing you in Milan during your visit in Europe.

I would appreciate very much if you may bring to us, or send by air mail, some samples of your metaxylylendiammine-adipamide, as we have to do some kinetic measurements of crystallization.

We should like to receive different samples (gr. 500 of each with different molecular weight. For instance, we could be interested in having greater quantities of samples :

CR-11351 ; CR-11352 and CR-11353

already send to us.

Thanking you in advance, I send you my best wishes.

Giulio Natta

September 24, 1957

Mr.Walter J.Murphy
Editorial Director
CHemical & Engineering News
WASHINGTON 6 - D.C. - U.S.A.
1155 Sixteenth St., N.W.

Rif.No.1609/rl

Dear Mr.Murphy,

I read on August 12 issue of Chemical and Engineering News, the short article on our discussion on isotactic polymers, at I.U.P.A.C. Meeting in Paris, last July. I should appreciate very much receiving some copies of this issue, and therefore, I should be grateful to you if you let me know if it is possible.

Thanking you in advance, and remembering with pleasure our meeting, I send you my best regards.

Sincerely yours,

Giulio Natta

7 Maggio 1957

Egr.Dr.Enrico CLEMENTI
c/o The Florida State Universi
Department of Chemistry
T A L L A H A S S E E - Florid

Rif.n.907/rl

Caro Clementi,

Ricevo la Sua lettera del 20.4. Sono lieto di apprendere che si è deciso ad accettare una borsa di studio presso il Prof. Pitzer. Per quanto riguarda la borsa Montecatini, penso che non convenga chiedere un ulteriore rinvio se non quando Lei avesse deciso la data esatta di un Suo eventuale ritorno.

Per quanto riguarda il lavoro che Lei sta preparando con Prof.Kasha, non credo che la Gazzetta Chimica Italiana rappresenti sede più adatta, poichè quella Rivista accetta soltanto lavori originali e non di compilazione. Ritengo più adatta la pubblicazione su "La Ricerca Scientifica" che è il giornale ufficiale del Consiglio Nazionale delle Ricerche.

Riceveremo tra qualche mese l'apparecchio Varian per la risonanza magnetico-nucleare, e presto verranno in U.S.A. l'ing. Castellano e l'ing.Lombardi per specializzarsi nella nuova tecnica.

La ringrazio per gli auguri che contraccambio. I migliori saluti.

(Prof. G. Natta)

26th February 1957

COLLINS & AIKMAN CORP.

210, Madison Avenue

NEW YORK 16, N.Y.

U.S.A.

Direzione Generale SL/se
Executive Offices AMcN/30.1

Gentlemen,

We refer to your letter of January 30, addressed to Prof. Natta, requiring some samples of polypropylene fabrics fibers.

We are sorry to inform you that we are not yet in a position to make samples of this material available to third parties since we are still carrying out studies and development researches on said product.

Very truly yours,

" POLYMER "

S Francisco

Decemlr 13, 1957

f. 1985.

Mr. H. S. HOHNSTON
Department of Chemis
University of Califor.
BERKELEY 4 - California

Dear Mr. Johnson,

please excuse me for the delay in answering to your kind letter of November 20, and in thanking you for the very appreciated invitation to present a talk to your University. I hope to be able to inform you more precisely about the duration of my trip in California and the date of my visit to Berkeley, but unfortunately I cannot decide a travel schedule before next January. As soon as possible, I shall write again to you on this matter, so that you may examine all other matters regarding my visit to California. It is, however, most probable that I cannot come to Berkeley before the Meeting of A.C.S., and therefore I should propose, as a possible date, the Tuesday after the end of the Meeting of A.C.S..

Pleease convey my best regards also to Prof. Calvin. With kindest wishes, I remain,

Sincerely yours,

G. Natta

November 22, 1957

Mr. Thomas C. Desmond
94 Broadway
NEWBURGH - New York - U.S.A.

Rif. No. 1971/rl

Dear Mr. Desmond,

Many thanks for your very kind letter of November 18, and for the very courteous words you had about my work. It is indeed a pleasure for me that my works are appreciated also abroad.

With my best wishes and personal regards, I am,

Sincerely yours,

Giulio Natta

TELEPHONE
MARQUETTE 8448

CABLE
"SALSTONE" MONTREAL
BENTLEY'S COMPLETE PHRASE CODE

JOSEPH FINESTONE

SUITE 110, 264 HOSPITAL STREET

MONTREAL 1, P.Q.
CANADA

September 24th, 1957

Milan Polytechnical Institute,
Milan,
Italy.

Attention, Dr. Giulio Natta,

Dear Sirs:

I understand that you have developed something new in the polyethyline field and we would be interested to know if you have made arrangements as to the Canadian manufacturing.

The reason for asking you this question is for the reason that a Canadian group are looking for new or improved products with a view of supplying the necessary funds to create new industries.

Looking forward to hearing from you. I am,

Faithfully yours,

Joe Finestone

JF/R

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH, PA.

June 25, 1957

Professor Giulio Natta
Instituto di Chimica Industriale
Del Politecnico di Milano
Milano, ITALY

Dear Professor Natta:

I spoke this afternoon with Dr. H. B. Klevens who returned from Europe only a few days ago. He told me of his interesting visit with your colleagues in Milan, but expressed regret at not having had the opportunity to see you owing to your recent illness. Allow me to express my personal regrets over your misfortune and also the hope that you will soon recover and be able to pursue the extremely important investigations which have lead to well deserved acclaim throughout the world.

I had hoped to be able to attend the meeting in Prague in September. However, owing to the many problems associated with my new position, a trip abroad at this time seems out of the question. There is the further complication, unfortunately, that the Prague meeting coincides with the New York meeting of the American Chemical Society, and also falls at the opening of the academic year in most universities. For these reasons, I fear that few Americans will find it possible to attend. I, personally, feel considerable regret over these circumstances and I do hope that our scientific colleagues in Prague will be understanding of them.

I am planning tentatively to attend the meetings in England next July and possibly I may get to Italy at that time.

We have noted with interest your recent communication in the JACS on the crystalline organometallic complex. I hope you will continue to send reprints of your work.

Mrs. Flory joins in sending greetings and very best wishes to Mrs. Natta and yourself.

Sincerely yours,

Paul J. Flory
Executive Director of Research

PJF:nb

June 11, 1957

N.1132/rl

Mr.Lionel A.DICKINSON
Defence Research Board
Dept. of National Defence
C.A.R.D.E.

P.O.Box 1427

QUEBEC - P.Q. - Canada

Dear Mr.Dickinson,

with reference to your letter of May 29, 1957 (CARDE 904-4), I wish inform you, in the absence of Prof.Natta, that the reprints of paper "Basic Italian Research on New Synthetic Elastomers" are not yet available, and I will send you a copy of them as soon as they arrive.

Best regards.

Sincerely yours,

R.Lamma (secretary to Prof.Natta)

THE GENERAL TIRE

THE GENERAL TIRE & RUBBER COMPANY

RESEARCH LABORATORY
AKRON, OHIO

June 14, 1957

1207

1 cu

Von Prof. Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Mailand, Italia

Dear Sir:

We would very much appreciate receiving four copies of your article Kinetik der stereospezifischen Polymerisation des Propylens zu isotaktischen Polymeren found in Angewandte Chemie April 7, 1957 page 213 - 219.

If you find it impossible to send four copies we would be very grateful for whatever you could send as we have requests from four of our chemists for them.

212
repm

Thank You,

Jean Dawson

Jean Dawson
Research Library

jd

GENERAL FOODS CORPORATION

RESEARCH AND DEVELOPMENT DEPARTMENT

CENTRAL LABORATORIES

11th & HUDSON STS., HOBOKEN, N. J.

February 6, 1957

Dr. Guilio Natta
Milan Polytechnical Institute
Milan, Italy

Dear Dr. Natta:

Last August you were kind enough to reply to an inquiry of mine about polypropylene film. At that time, you indicated you might be able to supply us with samples "within some months." I am interested in any progress you may have made toward this goal.

Very truly yours,

C C Sutton

Clifton C. Sutton
Asst. Laboratory Dir.
Packaging Technology

CCS:mm

1205 Central Street
Lafayette, Indiana
U. S. A.

June 20, 1957

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Milan, Italy

Dear Dr. Natta:

I have requested permission of Modern Plastics magazine to use the following illustrations in my forthcoming book tentatively entitled "The Chemistry and Engineering of Polymers" to be published by D. Van Nostrand Company:

Fig. 1, p. 170 in Natta, G., "Stereospecific Catalysis and Isotactic Polymers," Modern Plastics, 34, No. 4, (1956).

The editor has requested that I obtain your permission. Hence I am respectfully requesting your kind permission to incorporate the above illustrations in my book. Proper credit will be given.

Sincerely,

Brage Golding

Brage Golding

BG:ks

Si sue estando la fonte

July 11, 1957

Prof.Paul J.FLORY

Executive Director of Research
MELLON INSTITUTE

4400 Fifth Avenue

PITTSBURGH - Pa. - U.S.A.

Dear Professor Flory,

I received with delay your very kind letter of June 25, as it has been sent to me from Milan to Champoluc, where in my mountain home (5,300 feet high) I am recovering myself from an illness, for which I had to reduce, during last months, the intensity of my work.

Therefore, I too did not come to Prague, for the Macromolecular Symposium, at which I had the intention to present a paper on kinetics of stereospecific polymerization, that will be read by an assistant of mine.

I regret very much not to have an occasion to see you this year. If you, for any reason, come to Europe, I shall be very pleased if you let me know, because I should wish to invite you in Milan. We shall be very pleased to arrange a seminary on melting temperature and entropy of crystalline polymers, or on melting temperature variation of copolymers and stereobloc omopolymers. We collected much experimental material on isotactic polymers, on their polymorphism, on chain configurations, and on physical properties of stereoblod polymers. We should appreciate very much to be able to discuss with you these subjects.

Under separate cover, I am sending you the reptins of our last publications, and I will send you, as soon as they wre available, the reprints of our works now in the press.

Mrs.Natta joins me in sedding to Mrs.Flory and you the best wishes and greetings, hoping to see you both in Europe.

With my best personal regards, I remain,

Sincerely yours,

Giulio Natta

March 22, 1957

Mr. Peter J. FERRARA
Keep Chemical Company
50 East 78th Street
NEW YORK 21 - N.Y. - U.S.A.

Dear Mr. Ferrara,

I am indeed very sad in knowing, from your letter of March 18, the death of my friend Dr. M. M. Rosten. I beg you to convey my deepest condolences to His Family and also to send, to me the address of Dr. Rosten's daughter, so that I may write directly to her.

I thank you for your offer of services. With best regards, I am,

Very truly yours,

Giulio NATTA

October 2nd, 1957

Mr. JOSEPH FINESTONE
Suite 110, 264 Hospital Street
MONTREAL 1, P.Q. (Canadà)

N° 1648/gg

Dear Mr.Finestone,

I have received your letter of 24.9.57 and inform you that the industrial and commercial developments in the field of the production of polypropylene are committed to the : MONTECATINI - Soc.Generale per l'Industria Mineraria e Chimica - Via Turati 18 - Milano, to which you should apply for any information.

My best regards

(Prof. G.Natta)

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS

November 18, 1957

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico di Milano
Milan, Italy

Dear Professor Natta:

I should like to thank you for the reprint you so kindly sent me at my request.

The reprint arrived in good order.

Sincerely yours,

Lawrence J. Heidt

Lawrence J. Heidt

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS

November 5, 1957

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico di Milano
Milan, Italy

Dear Professor Natta:

I should like to thank you for the reprints you so kindly sent me at my request.

These have arrived in good order.

Sincerely yours,

Lawrence J. Heidt

Lawrence J. Heidt

CONFIRMATION

COPIA PER PROF. G. NATTA

OFFICES OF
HAMMOND & LITTELL
350 MADISON AVENUE
NEW YORK 17, NEW YORK

TELEPHONE MURRAY HILL 7-1567
CABLE ADDRESS "MONDTELL"

U. S. AND FOREIGN PATENTS
AND TRADE-MARKS

May 24, 1957

BY AIR MAIL

Dr. Patrizio Gallone
Oronzio de Nora Impianti Elettrochimici
Via Bistolfi 35
Milan, Italy

Re: Case 267.010 - Giulio Natta - Ser. No. 444,859
"Continuous Process for the Production of Furfural and Acetic Acid from Vegetative Material"

Dear Dr. Gallone:

We are pleased to inform you that we are in receipt of a Notice of Allowance of the above-identified United States patent application. Seven claims have been allowed. These are the originally filed claims 1 to 7 with the slight changes made by the amendment dated November 23, 1956.

The Notice of Allowance is dated May 16, 1957 and the final fee of $30 is therefore payable on or before November 16, 1957. Please let us have your instructions for the payment thereof.

With best wishes, we are

Yours very truly,

HAMMOND & LITTELL

By Walter G. Weissenberger

WGW:EDD

Copy by Boat Mail

March 13, 1957

Mr. Clifton C. SUTTON

Asst. Laboratory Dir. - Packaging Te
General Foods Corporation
Central Laboratories

11th & Hudson Streets

H O B O K E N - N.J. - U.S.A.

N. 547/

Dear Mr. Sutton,

Only on March 8, 1957, I received your letter of February 6, concerning isotactic polymers.

I wish to inform you that, in order to obtain some samples of polypropylene film you may address yourself to : "Società Montecatini - Direzione Settore Resine - Via F. Turati 18, Milano (Italy)".

With best regards.

Very truly yours,

(Prof. G. Natta)

July 11, 1957

Mr. Brage Golding
1205 Central Street
LAFAYETTE - Indiana - U.S.A.

Rif. N. 1242/rl

Dear Mr. Golding,

Please excuse my delay in answering your letter of June 20, 1957, but I have been ill for a long period.

I have no objection to make in regard to the use of the Fig. 1 of the article on Modern Plastics, 34, N. 4, 1956, pag. 170., in your book entitled "The Chemistry and Engineering of Polymers".

With best regards.

Sincerely yours,

Giulio Natta

267.010

IN THE UNITED STATES PATENT OFFICE

In re application of GIULIO NATTA Serial No. 444,859 Filed July 21, 1954 For: CONTINUOUS PROCESS FOR THE PRODUCTION OF FURFURAL AND ACETIC ACID FROM VEGETATIVE MATERIAL	)	Division 6

350 Madison Avenue
New York 17, N. Y.
November 23, 1956

A M E N D M E N T

Hon. Commissioner of Patents
Washington 25, D. C.

Sir:

In response to the Official Action of May 25, 1956 please amend the above-identified application as follows:

CLAIM 1, line 1, after "A" insert --continuous--;
same line, after "for" insert
--simultaneously--.

CLAIMS 2, 3, 4, 5, 6 and 7, line 1 of each, after "of" insert --continuously and simultaneously--.

R E M A R K S

Reconsideration of the application is requested.

The Examiner rejected claims 1 through 7 as being aggregative. The basis for this rejection is said to be that these claims relate to a process of preparing two distinct products from the same raw material, and as a support of this rejection the Examiner cited Ex parte James, 18 JPOS 654 and Ex parte Lambert, 18 JPOS 655. Upon careful consideration of these decisions it is noted that neither of them

has any bearing whatsoever upon the patentability of the claims in the present application. The James and Lambert decisions relate to the rejection of claims which recite the production of two separate and distinct products and a separate and distinct treatment of each of these products to obtain still other products. The claims in the present application, in contrast thereto, recite the continous and simultaneous production of two distinct products, namely furfural and acetic acid, without further treatment of either. The concentrated and purified furfural is fed into a storage tank, and the enriched aqueous solution of acetic acid is taken out of the process to be utilized or treated in some other desirable fashion, but neither the utilization nor the subsequent treatment is claimed. It is true that a portion of the dilute solution of acetic acid, which is at first obtained in the cyclic process, is recycled into the

column wherein pentosan-containing material is stripped of furfural and acetic acid, but the Examiner will readily concede that this recycling step cannot be considered by any stretch of the imagination as a separate and distinct treatment of one of the products of the process within the meaning and scope of the James and Lambert decisions. The Examiner's rejection of claims 1-7 as being aggregative in accordance with the principles set forth in the James and Lambert decisions is therefore completely devoid of logic and not applicable to the claims under consideration.

In order to further refute the Examiner's contention that the claims are improper and unpatentable on the basis of aggregation, the Examiner's attention is drawn to one of the references cited against the present application, namely the patent to Hill No. 2,436,804. Claim 1 of this

patent recites the process of manufacturing organic acids from a material from which furfural, acetic and formic acids can be produced, which comprises the steps of incorporating water-soluble metal-salt brine with said material, subjecting said material and brine to acid digestion, condensing and recovering the furfural produced and treating the brine-containing organic acid with solvent material highly soluble in water to separate the mixed organic acids from the brine. In other words, this claim recites the recovery of furfural and a mixture of brine and organic acid as separate and distinct products, and, in addition, recites the treatment of the brine-containing organic acid with a solvent material to recover the organic acid from the brine solution. If the Examiner's reasoning in rejecting the claims of the present application were applicable to processes of this type, claim 1 of the Hill patent would also be unpatentable, because it recites not only the production of two distinct products but also the further treatment of one of these products to separate the desirable component therefrom. The patent to Hill was issued in 1948, some fifteen years after the Lambert and James decisions, which would indicate that these decisions by the Board of Appeals had either been overruled by a higher tribunal or that the Patent Office does not follow the principles set forth in said decisions. Furthermore, the Examiner's attention is drawn to U. S. patents No. 2,312,445 and 2,644,785 in the field of crude oil refining. In those patents not only a multitude of separate and distinct products are produced from the same raw material, that is crude oil, but the distinct products and fractions are further treated by distillation, hydrolytic cracking, etc.

to produce a still greater multitude of other products. In fact, every oil-refining process which is the subject matter of a United States patent involves steps which produce a multitude of distinct products from the same raw material, and yet the Patent Office continually issues patents on such processes without ever raising the question of aggregation simply because it is well recognized that such integrated processes are not aggregations. Consequently, the Examiner's rejection of the claims in the present application as being aggregative is completely erroneous and should be withdrawn forthwith.

Claims 1-7 were further rejected as lacking invention over the claims of Natta patent No. 2,689,250 in view of Hill and Brownlee or Ricard. The Examiner who is now in charge of this application has repeated practically verbatim the grounds of rejection cited by the Examiner formerly in charge of this application in the Office Action of March 24, 1955, apparently without taking into consideration the detailed and painstakingly prepared comparison between the primary and secondary references, on the one hand, and the process described and claimed in this application, on the other hand, set forth in the letter filed September 26, 1955. For example, the Examiner says, "The same basic process is claimed in applicant's prior patent." Of course it is true that the present application relates to substantially the same basic process - that is, a process for the production of furfural and acetic acid from pentosan-containing materials - but a comparison of the Natta patent with the present application readily reveals that the process described in the application includes steps and procedures

which are not disclosed in the Natta patent. Furthermore, the application makes it quite clear that novel, unexpected and heretofore unknown results are obtained by the procedure described therein. One of these novel and unobvious results is that the hydrochloric acid catalyst remains virtually completely within the reaction zone of the distillation column, and is not entrained with the furfural and acetic acid vapors leaving the top of the column. Moreover, the spent vegetative material leaves the bottom of the column completely free from hydrochloric acid, or for that matter any acid component, which makes it possible to use this spent material as a fuel for the production of the steam required in the process substantially without further treatment except drying. None of these advantages is disclosed by the prior art. It is obvious that these two advantages in themselves are of sufficient economical importance to warrant the consideration of the present process as an invention over the prior art processes. A careful comparison of the process described in the application with that described in the Natta patent will reveal still further advantages of applicant's process which are not achieved by the process disclosed in patent No. 2,689,250.

The Examiner further stated that it is old to recycle acetic acid and/or hydrochloric acid in this particular art, as shown by the secondary references, namely Hill, Brownlee and Ricard. The patent to Ricard does not even mention acetic acid much less disclose any procedure for recycling the acetic acid. Consequently, Ricard is of no importance in connection with the present process and applicant sees no basis for citing this patent against the claims. The same is true of the patent to Brownlee. All

that these two references show is that hydrochloric acid is recovered and recycled. The process according to the present application does not contemplate nor need to recover and recycle any hydrochloric acid, because the hydrochloric acid never leaves the distillation column. On page 3 of the letter filed September 26, 1955, the irrelevance of the Brownlee and Ricard patents was discussed, which goes to show that the Examiner's statement to the effect that it is old to recycle hydrochloric acid in this particular art is merely a repetition of what the former Examiner had said in the Office Action of March 24, 1955, without giving any consideration whatsoever to the remarks presented by the applicant in his response to this rejection.

As to the patent to Hill, the Examiner's attention is directed to the exhaustive discussion of this reference beginning at the bottom of page 3 and extending to the top of page 5 of the letter filed September 26, 1955. The patentable distinctions between the process described in the present application and the Hill process are set forth on these pages with convincing clarity, and it is believed that a repetition of the discussion set forth in the letter is not necessary at this point, since the Examiner fails to specifically discuss the points raised in this discussion and merely brushes applicant's remarks aside. The comparison of the Hill process with applicant's process set forth in the present application clearly shows that applicant's process is indeed an invention over the Hill patent.

In view of the above remarks, it is believed that the claims in the application are patentable and should be allowed.

An early and favorable Action is solicited.

Respectfully submitted,
HAMMOND & LITTELL
Attorneys for Applicants

By _____

October 15, 1957

Mr. L. J. HEIDT
Dept. of Chemistry
R-4-146 - M.I.T.
Cambridge 39, Mass. - U.S.A.

Ref. No. 1613

Dear Mr. Heidt,

I thank you very much for your kind letter of September 20 and send you, enclosed herewith, copy of the lecture I held in Paris in occasion of the inauguration of the 16th Congress of Pure and Applied Chemistry.

In that lecture I illustrated the results which were obtained during these last years at my Institute in the field of stereospecific polymerization and I think it is representative of my present research interests.

Sincerely yours,

(Prof. G. Natta)

1 Encl (which we are sending you under separate cover).

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS

September 20, 1957

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico di Milano
Milan, Italy

Dear Professor Natta:

It was unfortunate that I missed seeing you when I visited your laboratory last July.

Your associate, Dr. I. Pasquon, however, very kindly showed and explained to me some of your research work related to my interests in chemical kinetics, photochemistry and light absorption spectrophotometry. May I say that you have one of the best equipped and most active laboratories in Europe.

I should greatly appreciate the favor of having you send me reprints of your publications which are representative of your present research interests.

Sincerely yours,

Lawrence J. Heidt

Lawrence J. Heidt

Notizie Pasquon [illegible] [illegible] [illegible] [illegible] [illegible]

Una copia della conferenza di Parigi? [illegible]

Costellano è assieme a Heidt!

November 20, 19

Mr. J. Raymond Hopper, President
National Chemical Company
463 Broadway
PATERSON 4 - N.J. - U.S.A.

Dear Mr. Hopper,

I received your letter of November 13, and I waiting for receiving the sample of para-Toluene Sulfonic Acid monohydrate you kindly sent to me.

I have not read the article appeared on the "Oil, Paint and Drug Reporter" concerning our work on polymerization, that you mentioned in your letter, and I should appreciate very much if you may inform me about its exacte reference.

With best regards.

Very truly yours,

G. Natta

National Chemical Company

NAT-CHEM

463 BROADWAY
PATERSON 4, N. J.
PHONE LAMBERT 3-6343

1936

November 13, 1957

Prof. Giulio Natta
Milan Polytechnic Inst.
Milan, Italy

Dear Professor Natta:

We were very interested in the article which appeared in the Oil, Paint, and Drug Reporter, concerning your discovery of certain catalytic agents used in the production of " Moplen".

Enclosed are our specifications of para Toluene Sulfonic Acid monohydrate which we have every reason to believe will produce a union between Urea Formaldehyde and Vinyl Resins.

Under separate cover we are sending you a sample supply for your evaluation and opinion.

Very truly yours
National Chemical Company
by J. Raymond Hopper
J. Raymond Hopper
President

JRH/c
Enc.

NATIONAL CHEMICAL COMPANY
463 BROADWAY
PATERSON 4, NEW JERSEY

Tel. LAmbert 3-6343

Para - TOLUENE SULFONIC ACID - Monohydrate

SPECIFICATIONS

ANALYSIS:

para-Toluenesulfonic Acid (Monohydrate). . . .	98.0%
Free Sulfuric Acid.	2.0%
Free Hydrocarbons	none
Melting Range	104°C

Solubility in water . . . . . soluble in all proportions

Solubility in alcohol . . . . . soluble in all proportions

Appearance . . . . . white crystals

Para Toluene Sulfonic Acid - Monohydrate is the pure para isomer of Toluene Sulfonic Acid. It is used in the same applications as the standard Toluene Sulfonic Acid, especially where high purity of product and color stability are essential, such as in the production of pharmaceuticals (cortizone, hormones, etc.), and in the production of color stable plastics, polymers, adhesives, resins, etc.

Toluene sulfonic acid is comparable in strength to sulfuric acid, but without the agressiveness or destructive nature of the mineral acid.

This gentle quality makes it unexcelled in catalytic reactions such as:

- Esterification
- Polymerization
- Alkylation
- Dehydration
- Acid Hydrolyses
- Catalyst for Thermoseting resins
- Friedel-Crafts alkylating catalysts
- Isomerization of Rubber
- Hydrotropic agent in Cement (to decrease viscosity and allow greater concentration in the mix).

UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

61 *The William Albert Noyes Laboratory*

Segnate e Spedite

14/7/57

Dear Professor Natta,

I should be very grateful if you would send me reprints of your three papers on polymerisation of olefins & propylene which appeared in the May issue of the Gazzetta Chimica Italiana

21M-15-16 070

& of the paper on stereo block polymers which appeared a few weeks ago in Chimica Industria. 213

I should be interested also in any other of your very recent papers, if reprints are available.

Sincerely yours
A.J. Hyde.

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

August 28, 1957

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I was very sorry to have missed you during my recent visit to Milano. Both Professor Flory and I were sorry to hear that you had been ill and we sincerely hope that you are now fully recovered and back at your home in Milano.

I know that both Flory and I would very much like to be with you at the I.U.P.A.C. meetings in Prague, but unfortunately this is not at all possible. In my case, my recent trip to Europe makes a return at this time impossible, and in the case of Professor Flory, the many duties involved with his new position here make leaving here almost impossible at this time. However, I know that he plans to be in Europe sometime next spring or summer, and my next trip will possibly be during the following year. I hope at that time that I may have further opportunity to visit in Milano and to continue hearing further about some of the fine work going on in your laboratory.

I did spend a good part of the day with some of your associates talking about some of the x-ray work which is now going on and discussing some of our more recent work here on adsorption of polymers on various surfaces, and some of the x-ray and electron microscopic work that has been under study on collagen and other protein preparations.

Please extend my very best regards to Madama Natta. I look forward to seeing you both again in the next year or so.

Sincerely yours,

H. B. Klevens

H. B. Klevens

HBK:amc

La copia per e la sua lettera del 28 c.m. mi manca se

H. B. KLEVENS
University of Pittsburgh

MELLON INSTITUTE OF INDUSTRIAL RESEARCH

MEMORANDUM

FOR _____ DATE 25-5-57

Dear Professor Natta,

Before I left the States in April, I wrote to tell you I should like to visit with you if my program should allow for another trip to Milano.

The very poor weather of the past week drove me away from the mountains in Switzerland and I again find myself in Milano. If possible, I should like to visit with you and your associates on Tuesday, May 28.

I shall be out of Milano all day on Monday but would appreciate if you would telephone me at the American Hotel (in Milano) and leave a message as to a suitable time to visit as well as the address of your laboratory. At the time of the IUPAC meetings here some two years ago, we were in a number of places and I am not sure now regarding the proper address.

FORM 25

If possible, I should like to discuss some of our more recent polymer interaction studies, particularly those involving fluorocarbons, with you and your associates.

I bring you many greetings from our mutual friends and acquaintances, particularly from Professor and Mrs. Paul Flory, who have recently joined our laboratory in Pittsburgh.

Sincerely,

H. B. Klevens

Figures Lemma.
This paper ~~[illegible]~~ in letter
~~[illegible]~~ Levin quick figure
discussed this to our letter
in percent is in per cent
this is also via the dilution
in consulting in the
i ~~[illegible]~~ ~~[illegible]~~ revised
a chemistry in interest

Mr i Nasanel –
avoid visits, in
spare d own
after ~~[illegible]~~
the in contrast

etc. etc.

Sciver a Pittsburg?

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

December 17, 1957

Professor Giulio Natta
Direttore dell'Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Very many thanks for your kind letter of December 6, 1957 with the excellent news that you will probably be able to appear as the main speaker at a Symposium at our Institute. Of course a lecture on "Kinetics of stereospecific synthesis" would be very good. We would also like to organize a "Reception at the Academy of Sciences in New York" (this without a lecture) and a Luncheon at our Institute.

We are all very much looking forward to your visit. Will you accept in the meanwhile my warmest wishes for a merry Christmas and a happy and healthy New Year. I am, as always,

Very sincerely yours,

H. Mark

H. Mark

HM:BL

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

December 11, 1957

Prof. Dott. Ing. Giulio Natta
Direttore dell'Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I am extremely pleased to report to you that the Montecatini Stand was the incomparable show piece at the Chemical Exhibition in New York. It was always surrounded by a huge crowd of people, and stole the whole show.

This is not only my impression, but everyone whom I met from Industry or from the Universities agreed without reservation.

Not only was the material very interesting, but Dr. Ottolenghi and Mr. Lucini succeeded to arrange everything in an outstandingly attractive and original fashion.

Altogether, I am delighted to say that the Montecatini Stand was a big success.

As ever, with kindest personal regards and with best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:BL

September 11, 1957

Mr. H. B. KLEVENS
MELLON INSTITUTE
4400 Fifth Avenue
PITTSBURGH 13 - Pa. - U.S.A.

Ref. to N. 1529/rl

Dear Mr. Klevens,

Many thanks for your kind letter of August 28, I am very sorry not to be able to meet you during your visit in Milan. I do hope that you and Prof. Flory may have soon another opportunity of coming to Europe. I believe that you and Prof. Flory most probably will come to Europe to attend the International Congress on High Polymer, that will be held in England during 1958.

In the case that Prof. Flory comes to Europe, we shall be glad if he may give a seminary or a lecture in Milan. At present we are studying also the variation of the melting temperature of polymers with the stereoisomeric composition and we are employing the Flory's theories, which seem to be very useful.

With best regards.

Very sincerely yours,

Giulio Natta

Ann.

Champoluc - June 13, 1957

Prof. H. B. KLEVENS
Mellon Institute - Univ. of
PITTSBURGH - Pa. - U.S.A.
4400 Fifth Avenue

Dear Prof. Klevens,

I received with delay your kind letter of May 25, here in Champoluc, where I am in convalescence, and I am very sorry not to be able to meet you in Milan.

I hope to return to Milan perhaps at the end of June and I shall be glad if may have an other occasion to see you in Italy.

With my best personal regards also to Prof. Flory, I remain,

Sincerely yours,

Giulio Natta

1466/2l

Milano, 6 Dicembre 1957

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street

BROOKLYN 1 - N.Y. - U.S.A.

Caro Professor Mark,

la ringrazio vivamente per la Sua gentile lettera del 18 Novembre e per la Sua gentilissima offerta di organizzare un Simposio durante il mio soggiorno a New York. Ho tardato a risponderLe perchè non ho ancora potuto decidere la data della mia partenza per gli U.S.A. e la durata del viaggio. Ho avuto moltissimi altri inviti, che non ho ancora accettato, ma s'intende che darò la precedenza al Suo gentile invito. Appena avrò potuto stabilire un programma preciso, sarà mia premura avvisarLa.

Lei pensa che una mia conferenza sul tema "Meccanismo cinetico dell sintesi (stereospecifica) dei polimeri isotattici" possa essere adatta al Simposio da Lei organizzato, oppure preferisce un argomento di carattere più generale?

La prego di gradire molti cordiali saluti e ringraziamenti, e vivissimi auguri per le prossime feste.

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

November 18, 1957

Prof. Dott. Ing. Giulio Natta
Direttore dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I was extremely glad to hear that you intend to come to this country in April. I know that you will be very busy, but I want to ask you whether you could permit me to organize for you a Special Symposium in New York. The best day would be Saturday, April 19 or Saturday, April 26.

I will look forward with great anticipation to hearing from you, and in the meanwhile, I beg to remain, as always, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:BL

Caro Natta
Io non ho ancora stabilito
il programma che vorrei seguire
nei miei due giorni di
permanenza negli Stati Uniti.
Affettuosi —

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

1918

November 11, 1957

Prof. Dott. Ing. Giulio Natta
Direttore dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

May I please kindly send you this article on plastics which appeared in the recent issue of Chemical Week. I hope it will prove interesting to you.

As always, with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:BL
ENCL

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

May, 18, 1955
MILANO,
TELEF. 292.125 - 292.126

Ds you suggested me, I sent to Professor Kratky a letter of which I am enclosing herewith a copy.

I think that the nomenclature problems maight interest not only the Macromolecular Commission but also that one of Applied Chemistry, Division of Plastics and High Polymers.

I am sending you, under separate cover some reprints of ours, about the cristalline polymers structure. I shall give a hint of thei properties during the "Fourth World Petroleum Congress" in Rome.

I have in mind to send you, in a short time, sons comunicatio on the structure of other news polymers for their publication in the Polymer Science.

As you will know have been invited by Prof.Hopff to hold a lecture in Zurich during the Congress on Macromolecular Chemistry, and I will expose more amply, in such an occasion, the physical properties of the isotactical polymers.

With my best personal regards

Sincerely yours

G.Natta

Dicembre 18, 1957

Prof. H. Mark, Director

Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street

BROOKLYN 1 - NEW YORK - N.Y.-U.S.A.

Rif. N. 2129/rl

Caro Professor Mark,

Desidero ringraziarLa vivamente del Suo gentile pensiero nell'avermi voluto informare della ottima riuscita dello Stand Montecatini alla Chemical Exibition di New York.

Noi stiamo lavorando intensamente in Laboratorio su diversi problemi teorici relativi ai nuovi polimeri e copolimeri, e abbiamo intenzione di inviare nei prossimi mesi qualche pubblicazione di carattere generale per il Journal of Polymer Science. Data la difficoltà per noi di scrivere in inglese corretto, finiamo per pubblicare su "La Chimica e l'Industria" la massima parte dei lavori, con l'inconveniente che i lavori pubblicati in lingua italiana spesso restano ignorati negli U.S.A.

Sono stato molto lieto di ricevere attraverso l'ufficio di "Public Relations" del Politecnico (non ho ancora ricevuto la comunicazione diretta) la notizia della mia nomina a Fellow della New York Academy of Sciences. Immagino che sia stata fatta su Sua proposta e perciò desidero ringraziarLa. Le sarei grato mi potesse far sapere qualche notizia relativa ai compiti dei Fellows nella New York Academy of Sciences, e se tale nomina esonera dal pagamento della quota annuale di membro.

RinnovandoLe molti cordialissimi auguri,

G. Natta

C O P I A

POLYTECHNIC INSTITUTE OF BROOKLYN
333 Jay Street - Brooklyn 1, N.Y.
Polymer Research Institute

December 11, 1957

Prof.Dott.Ing. Giulio Natta
Direttore dell'Istituto di Chimica Ind.le
del Politecnico di Milano
P.za L.da Vinci 32
Milano

Dear Professor Natta,

I am extremely pleased to report to you that the Montecatini Stand was the incomparable show piece at the Chemical Exhibition in New York. It was always surrounded by a huge crowd of people, and stole the whole show.

This is not only my impression, but everyone whom I met from Industry or from the Universities agreed without reservation.

Not only was the material very interesting, but dr.Ottolenghi and Mr.Lucini succeeded to arrange everything in an outstandingly attractive and original fashion.

Altogether, I am delighted to say that the Montecatini Stand was a big success.

As ever, with kindest personal regards and with best wishes, I am

Very sincerely yours,

H.F. MARK

18 Novembre 1957

(Polymer Research Institute)

Mr. Prof. H. MARK, Director
POLYTECHNIC INSTITUTE of Brooklyn
99, Livingston Street

BROOKLYN 1, N.Y. (U.S.A.)

Rif.n.1918/el

Caro Professore,

La ringrazio per la Sua gentile lettera dell'11 corrente e per l'articolo apparso su "Chemical Week", di cui Lei gentilmente mi ha inviato copia.

Colgo l'occasione per informarLa che molto probabilmente nel mese di aprile verrò in America e, in tal caso, mi permetterei di partecipare al Meeting dell'American Chemical Society di San Francisco.

Spero quindi di poterLa vedere in tale occasione. Gradisca molti cordiali saluti.

G.Natta

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

Rif. N.1579/rl

MILANO, 18.9.1957
TELEF. 292.125 - 292.126

Prof. H.Mark, Director

Polymer Research Institute
Polytechnic Institute of Brooklyn

99 Livingston Street

B R O O K L Y N 1 - N.Y. - U.S.A.

Dear Professor Mark,

thank you so much for your kind remember from Prague.

I am writing to requiest your advise. One of mine best pupils this year at Politecnico was Dr. Ettore Coggi son of Prof. Silvio Coggi general director of Notari Corp., one of the most important italian jute industries.

Dr. Ettore Coggi gave his thesis on the applications of Polypropylene fibers and their uses in the production of mixt textiles.

Dr. Coggi's father wants him to become aquainted with the United States and so he will leave Italy in next few days to go to the United States where he will remain for six months. The first part of his visit will be spent in New York with the Stein Hall Corp., an importer of manifactured products made by Notari Corp. in Italy.

In this period Dr. Ettore Coggi will study English and on commercial organisation problems. After this Dr.Coggi would like to make a few visit of a more technical nature. I should be grateful if you could give me any information on this and in particular to let me know which industries or laboratories in the textile field of a practical nature that Dr. Coggi could visit and how he could obtain letters of introduction.

Please take into account that when Dr. Coggi returns to Italy he will be working in his father's industry and that he wishes to develop his activity in the applications of synthetic fibers or in combinations of synthetic and natural fibers. For this reason it could be interesting for some American Industries to work up some business relations with a solid italian industry as is Notari Corp.

I shall be most grateful for any information that you could let me have

Cordial best wishes

sincerely yours

ETTORE COGGI born at Milan may 21st, 1932, received his "Doctor degree" from the Politecnico di Milano in chemical engineering in 1957. His thesis was entitled : "Contribution to the Study of the Uses of Isotactic Polypropylene : Its Applications to the Jute Industry" .

The theme was assigned by Prof. Giulio Natta, the head of the Institute of Industrial Chemistry at Politecnico di Milano, who during the year and half research period gave scientific and pratical directions.

Practical applications and tests on the products obtained and the study of their characteristics were carried out also at the factory of Jutificio Notari Corp. and in the Notari Corp. laboratories, of which Prof. Silvio Coggi, father of Dr. Ettore Coggi is the General Director. In this firm Dr. Ettore Coggi will carry on his professional activity. Prof. Silvio Coggi is also director of the post-graduate course in Textile Industries at the Politecnico di Milano, President of Italian Jute Industry Association and Vice-President of the "Association des Industrie du Jute Européenne" .

The work of Notari Corp. includes new pratical developments both in new applications of jute fiber in the introduction in this sector of new artificial and synthetic fibers.

Notari Corp. is considered the best equipped in Italy and is among the best in Europe producing jute, artificial and synthetic fiber products with applications on jute machinery.

For about 30 years the Notari Corp. has been the biggest exporter of jute products having special characteristics to the North-American market and is represented in United States by Stein Hall Corp., 285 Madison Avenue, New York.

Dr. Ettore Coggi who is sent by Notari Corp. to the United States is especially interested in becoming acquainted with the necessities of the American market in particular the applications of jute products and to learn the possibilities of the United States production of chemical products applicable to the textile industry.

ETTORE COGGI born at Milan may 21st, 1932, received his "Doctor degree" from the Politecnico di Milano in chemical engineering in 1957. His thesis was entitled : "Contribution to the Study of the Uses of Isotactic Polypropylene : Its Applications to the Jute Industry" .

The theme was assigned by Prof. Giulio Natta, the head of the Institute of Industrial Chemistry at Politecnico di Milano, who during the year and half research period gave scientific and pratical directions.

Practical applications and tests on the products obtained and the study of their characteristics were carried out also at the factory of Jutificio Notari Corp. and in the Notari Corp. laboratories, of which Prof. Silvio Coggi, father of Dr. Ettore Coggi is the General Director. In this firm Dr. Ettore Coggi will carry on his professional activity. Prof. Silvio Coggi is also director of the post-graduate course in Textile Industries at the Politecnico di Milano, President of Italian Jute Industry Association and Vice-President of the "Association des Industrie du Jute Européenne" .

The work of Notari Corp. includes new pratical developments both in new applications of jute fiber in the introduction in this sector of new artificial and synthetic fibers.

Notari Corp. is considered the best equipped in Italy and is among the best in Europe producing jute, artificial and synthetic fiber products with applications on jute machinery.

For about 30 years the Notari Corp. has been the biggest exporter of jute products having special characteristics to the North-American market and is represented in United States by Stein Hall Corp., 285 Madison Avenue, New York.

Dr. Ettore Coggi who is sent by Notari Corp. to the United States is especially interested in becoming acquainted with the necessities of the American market in particular the applications of jute products and to learn the possibilities of the United States production of chemical products applicable to the textile industry.

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

1599

July 23, 1957

Miss R. Lamma
Secretary to Prof. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Miss Lamma,

Thank you very much for your kind letter of July 18th, 1957.

Please kindly find enclosed three copies of page 16 of the ACS Miami report. I deeply regret that this report was sent to Professor Natta incomplete and hope he will accept my apologies. Very unfortunately, we did not receive your letter of June 4.

With the best wishes of this office, I am,

Sincerely yours,

F. Fendell

(Mrs.) F. Fendell
Secretary to
Prof. H. Mark

ff/enclosure

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

June 26, 1957

Professor G. Natta
Direttore dell'Istituto di Chimica Industriale
del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

I have heard from your secretary that you have been ill and, now, Dr. Giulenghi tell me that you are in a hospital.

Mimi and I are terribly disturbed. We sincerely hope that it is nothing serious and that you will soon be completely well and enjoying the best of health.

Please accept our warm best wishes for a speedy recovery and our warmest personal regards.

Milano, Italy.

Most cordially yours,

H. Mark

H. Mark

HM:mm

1144 Ann.

5 Giugno 1957

Professor H.MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1 - New York

Caro Professor Mark,

La ringrazio vivamente per la Sua lettera del 28 Maggio, riguardante il programma del Corso estivo che sarà tenuto presso il Politecnico di Brooklyn.

Le lezioni in programma sono veramente molto interessanti e desidererei sapere se verranno pubblicate. In caso affermativo gradirei averne alcune copie.

I migliori saluti.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

May 28, 1957

Dear Sir,

Please permit me to take this opportunity to send you the announcements of our Summer Laboratory Evening Program.

With kindest regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:BL
ENCL3

Ringrazio vivamente
e domando se potrebbe
mettermi al corrente
sugli articoli!

Fare fare
copie dell'allegato
ed inviarle a Einstein
Oppenh. Princeton

Einstein

Oppenh.
Pauli
Dell Sacchi

Caro Ingegnere
Ricevo da parte del Prof. Mark
l'allegato programma di conferenze al
Politecnico Inst. of Brooklyn
in "Newsweek" "
Come Lei può constatare è fatto il massimo chiasso
sugli altri politecnici e l'orientate verso il
campo di lavoro di cui conosciuto nel
1956.!
Cordiali saluti

24 Giugno 1957

Prof. H. MARK
Director Polymer Research Inst.
Polytechnic Institute of
Brooklyn
99, Livingston Street
BROOKLYN, 1 - N.Y.

Ref.n.1239/el

Carissimo Mark,

ricevo la Sua gentile lettera del 20 giugno e La ringrazio vivamente per il Suo interessamento.

Effettivamente sono stato poco bene negli ultimi mesi, ma però non sono stato all'ospedale, bensì a Champoluc per un mesetto per rimettermi più rapidamente. Ho fatto ora una breve scappata a Milano e penso di ritornare a Champoluc a fine settimana. Mi riprometto però di venire a Parigi per il Congresso insieme a Rosita che sarà anche Lei molto lieta di rivedere Mimi e Lei.

Molti cordiali saluti,

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

May 6, 1957

Prof. Dott. Ing. Giulio Natta
Direttore dell'Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Please kindly find enclosed:

1) A general report on the ACS Meeting in Miami, in three copies;

2) A report on progress in the polymer field which I wrote especially for you; it, also, is enclosed in three copies;

3) A report on new types of polyphosphates.

I will be very grateful if rather than sending the recompensation for these reports to me, you will send the $100.- to Mr. Cl. Klauser, Bayerisch Vereinsbank, Conto 581040, Munich 25, Germany.

I have just seen your last paper on the kinetics of propylene polymerization in the Angewandte and I want to congratulate you upon this excellent piece of work. → mandero subito un estratto

As ever, with kindest personal regards and best wishes,

I beg to remain,

Very sincerely yours,

H. Mark

H. Mark.

HM:BL
ENCL

Prof. Natta

Ho già dato una copia dei reports 1) e 2) al Dr. Massanti e al Dr. Pirani — Rhaume

MONTECATINI
SOC. GEN. PER L'INDUSTRIA MINERARIA E CHIMICA
ANONIMA - CAPITALE VERSATO L. 84.000.000.000
MILANO

BREVETTI E DOCUMENTAZIONE TECNICA
mg/

MILANO (134)
Via F. Turati, 18

7/6/57

Egr. Sig. Prof.
Giulio Natta
Direttore dell'Istituto di Chimica Ind.le
Politecnico di
M I L A N O
P.za L. da Vinci, 32

Le restituiamo in allegato la lettera del Polytechnic Institute of Brooklyn, assicurandoLa d'aver dato disposizioni affinché venga rimessa al Sig. Cl. Klauser di Monaco la somma di $100.=.

Distinti saluti.

"M O N T E C A T I N I"

Alleg/

Telefoni 6333 - 6334 - Telefoni interurbani chiedere GABBRO MILANO
Telegrammi-Télégrammes-Telegramme-Cables: GABBROBREV - MILANO

MOD. BREV 39 (A6) - 6000 - 7-56

1138

4 Giugno 1957

Professor H. MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1 - New York - US.

Egregio Professor Mark,

Il Prof. Natta, che è attualmente fuori Milano, mi incarica di ringraziarLa vivamente per l'invio dei reports sul Simposio di Miami, da Lei gentilmente inviati. Le scriverà direttamente quanto prima. La informo inoltre che ha già dato disposizioni affinchè venga effettuato il versamento della somma a Mr. Klauser di Monaco.

Nel report su Miami manca però la pagina 16, in tutti e tre gli esemplari e perciò La pregherei di volerla inviare al più presto possibile.

In attesa di una Sua gentile risposta, La prego di gradire i migliori saluti.

R. Lamma (segretaria)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

April 22, 1957

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of April 10th, 1957.

Please do not send the $100 to me, but rather to Cl Klauser, Bayerische Vereinsbank, Conto 581040, Munich, Am Harras, Germany.

With many thanks, and with kindest personal regards and warmest best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

Vedi AF 1084

10 aprile 1957

Egr. Prof. H. Mark
Direttore Polytechnic Institute
of Brooklyn
99 Livingston Street
Brooklyn 1, N. Y.

N° 749/

Caro Prof. Mark ,

ho ricevuto la Sua gentile lettera del 25 marzo e poichè il Suo rapporto sul "Textile Fiber Research Meeting" può interessarci, ho pregato l'ing. Larcher della Soc. POLYMER di inviarLe i 100 dollari per avere tale rapporto.

Le ho telegrafato giorni fa perchè gradirei poter avere un rapporto sulle conferenze e sulle discussioni che verranno tenute al Congresso dell'American Chemical Soc. di Miami nel campo delle polimerizzazioni anioniche ed eventualmente anche sui composti metallorganici.

Tale Suo rapporto mi interessa moltissimo e naturalmente Le rimborserò le spese relative.

Gradisca cordiali saluti e ringraziamenti anticipati.

(G. Natta)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

April 8, 1957

Professor G. Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Many thanks for your kind wire.

Of course we shall be delighted to make the two reports on the Symposium in Miami for you.

I am enclosing three other reports which may interest you and hope that you and all our friends at Montecatini are very well.

With kindest personal regards and warmest best wishes to Rosita and you from Mimi and me, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff
enclosure (3)

ordinario

507 Ann.

U.S.A. MILANO 5/4/57

Professor Mark
99 Livingston Brooklyn New York

Would ask you let me have detailed report symposia polymerization processes and metallorganic compounds Miami convention Stop will refund expenses Stop if unable please ask Professor Overberger Thanks

NATTA

REEV
3206 3206
XXXX

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
85 Livingston Street
Brooklyn 2, New York

March 28, 1957

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of March 16th, 1957 and for the extremely interesting LETTER TO THE EDITOR, entitled "The nature of some soluble catalyst for the low pressure ethylene polymerization", by yourself, P. Pino, G. Mazzanti, U. Giannini, E. Mantica, and M. Peraldo.

We shall be very pleased to publish your article in the Journal of Polymer Science and shall see that it appears in as early an issue as can possibly be arranged.

With many thanks for the fine contribution, and with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

lettre al Prof

July 18, 1957

To the
Secretary to Prof. Mark
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1 - New York

Prof. Mark sent to us, during the first days on June 1957, the reports of the Miami Symposium. Unfortunately, in all the three examplars sent to us, there is not the page 16.

I wrote on June 4 to Prof. Mark, requesting this page, but till now I received no reply. I should be very grateful to you, if you may send to Prof. Natta the wanted page.

Hoping to hearing soon from you, I send you my best regards.

R. Lamma (secretary to Prof. Natta)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

February 11, 1957

Professor Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I would like to take this opportunity to inform you that at the Paris Meeting we shall have a discussion on the German Nomenclature, as a consequence of which there will probably be a relatively well established Nomenclature situation in English, French and German. I wonder whether we should not consider similar attempts for the other important languages, such as Russian, Italian and Japanese - I have suggested that we put this point on the agenda of the Paris Conference. Please kindly let me know your opinion on this subject.

I am looking forward to hearing from you and, until then, please accept my kindest personal regards and best wishes.

Very sincerely yours,

H. Mark

H. Mark

HM:ff

cc: Prof. A. Nasini

d'accordo
lo sono
per la proposta -

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

March 25, 1957

Professor Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I have completed the report on the Textile Fiber Research Meeting which was held in New York on March 14th and 15th and am sending you a copy of it.

Please kindly let me know whether you want any more detailed information on any special point, for I shall be very glad to give it to you if I can.

Please kindly send the amount of $100.00 to Mrs. Clara Klauser; Konto # 581040, Bayerische Vereinsbank, Am Harras, Munich 25, Germany.

Esperti di Polymer

With many thanks, and with kindest personal regards and best wishes, I am, as always,

Very sincerely yours,

H. Mark

HM:ff

H. Mark,

Vetti
A963e 1084

Respondere a Natta

Che cosa propone

18 Marzo 1957

Prof. H.MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99, Livingston Street
Brooklyn 17 N.Y. - U.S.A.

N° 651/ Am.

Caro Prof.Mark,

la settimana scorsa Le ho inviato una lettera all'Editore per Polymer Science, che certamente Le sarà giunta.

Noi, in questo periodo di intensa attività di ricerche presso l'Istituto, preferiamo pubblicare molti lavori in italiano per la nostra limitata conoscenza della lingua inglese, e ciò rappresenta per noi un guadagno di tempo.

Mi riprometto però di mandare altri lavori a Polymer Science, sopratutto quelli di carattere definitivo. Abbiamo ora completato la struttura di alcuni polimeri isotattici ottenendo dei bellissimi accordi tra fattori di struttura calcolati e sperimentali.

Questo lavoro potrebbe essere oggetto di tre o quattro note successive. Se Lei ritiene di poterlo pubblicare su Polymer Science abbastanza rapidamente, penserei di mandargliele in parte il mese successivo.

Pensiamo di scriverle direttamente in inglese ma Le sarei grato se Lei potesse farle rivedere da qualcuno anche per la correzione grammaticale.

Molti ringraziamenti e cordiali saluti

(prof. G.Natta)

16 Marzo 1957

N. 625/

Professor H. MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1 - NEW YORK - N.Y. - US

Caro Professor Mark,

Come Le avevo promesso, Le invio una lettera all'editore in cui abbiamo riassunto le notizie pubblicate sulla Chimica e l'Industria del Gennaio 1957, completate con alcune nuove notizie relative ad un composto cristallino che sarà oggetto di pubblicazione sul Journal of American Chemical Society.

Le sarò grato se vorrà esaminare la forma inglese del manoscritto pregandoLa di inviarmi le bozze di stampa prima della pubblicazione.

Cordiali saluti.

(Giulio Natta)

P.S. - Non ho ancora ricevuto gli estratti della lettera all'editore appa sa sulla Chimica e l'Industria. Appena li avrò ricevuti glieli man derò.

All/

POLYTECHNIC INSTITUTE of BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

TRIANGLE 5-6412

December 26, 1956

Prof. Dott. Ing. Giulio Natta
Direttore dell'Istituto
di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci32
Milano, ITALY

Dear Professor Natta,

Please kindly find enclosed a report on the symposium on "Stability and Solubility of Polymers," which was held at our Institute on December 15, 1956.

Prof.

With kindest personal regards and best wishes, I am,

Yours very sincerely,

H. Mark

H. Mark

HM:bg
encl

MODERN PLASTICS

PUBLISHED BY MODERN PLASTICS INC. ■ 575 MADISON AVENUE, NEW YORK 22, N.Y.
PLAZA 9-2710
Cable address: BRESKINPUB

December 29, 1956

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am greatly distressed at the misunderstanding that has occurred regarding publication of the condensation of your article that appeared in Angewandte Chemie. Unfortunately, I never received the letter of September 19 which you refer to in your letter of December 19. Upon my return from Europe on October 8 I inquired to the New York office as to whether a letter had come from you for me, but it was not there, nor was it at my home.

You may recall that during your visit to Washington last June I joined you and your associates from the patent firm for lunch down town. At that time I spoke to you of my interest in publishing in Modern Plastics a report of your very important work on the isotactic polymers; you referred me to the paper that you presented at Bad Nauheim which you said would soon appear in Angewandte Chemie. I checked in our library weekly thereafter and finally found the article in the June 21 number of Angewandte Chemie. It struck me as being an excellent presentation of your pioneering work in this field and one which I was sure would be of great interest to chemists in this country. When I did not hear from you in answer to my letter sent to you in August, I assumed that you were so busy with your experimental work that you had not the time to write to me.

Regarding proofs, we have followed the practice ever since I became Technical Editor in 1936 of not bothering authors with the chore of reading proofs. We check the proofs ourselves very carefully against the manuscript to avoid errors. We have received many letters from authors thanking us for doing this job so effectively. I am sorry to hear that some periods have been misplaced in your article; I checked it very carefully against the German article and thought that everything was in good order.

MODERN PLASTICS

PUBLISHED BY MODERN PLASTICS INC. 575 MADISON AVENUE, NEW YORK 22, N.Y.
PLAZA 9-2710
Cable address: BRESKINPUB

I am delighted to hear that your lecture that you presented at the 29th Congress of Industrial Chemistry in Paris in November is ready for publication. Perhaps you will still be willing to submit this for publication in Modern Plastics, particularly if it includes a discussion of the crystalline structure of the polymers. We shall be very pleased to send you 300 reprints of the article when it is published. I hope that this proposal will be acceptable to you.

It is always gratifying to an editor and much more so to an author to have a tremendous reader response to an article as evidenced by requests for reprints. I found your article to be very interesting and informative to me personally and I was sure that you had a very large audience waiting in this country to be informed on the details of the notable contributions that you have made in the field of stereospecific catalysis and polymerization. I am sure that you will receive many honors for your pioneering work in this field.

I hope that this misunderstanding will not interfere with our friendship of many years which I value highly. I am looking forward to seeing you again at the IUPAC Congress in Paris in July 1957 and shall apologize in person for this troublesome affair.

Mrs. Kline and I had a pleasant and worthwhile visit to Spain and Portugal at the time of the IUPAC Analytical Congress in Lisbon in September. There was much discussion of your work among chemists in Lisbon as well as at the Spanish Plastics Institute in Madrid. We then went to the Hague for the 1956 meeting of ISO/TC 61 on Plastics prior to returning to the United States.

Mrs. Kline joins me in extending to you and Mrs. Natta our very best wishes for the New Year. We hope to see you both in Paris in July.

Yours sincerely,

G. M. Kline
Technical Editor

A BRESKIN Publication

MODERN PLASTICS

PUBLISHED BY BRESKIN PUBLICATIONS INC. ■ 575 MADISON AVENUE, NEW YORK 22, N. Y.
PLAZA 9-2710
Cable Address: BRESKINPUB

24, Settembre 1956

Mi fondue presto copia Guastavino e Verde

Egr. Prof. Natta:

In assenza del Dr. Gordon Kline, editore tecnico, mi e' stata consegnata la sua lettera del 19 c.m. Probabilmente egli sara' di ritorno in due settimane e sono certo che sara' di grande interesse per lui il ricevere il di Lei manoscritto.

Purtroppo pero' data la distanza a cui ci troviamo, il tempo che occorrera' per riceverlo e per la pubblicazione, due mesi e forse piu' saranno necessari prima che possa apparire nella nostra rivista. Se Ella desidera inviare il manoscritto in francese, saremo ben lieti di farne fare la traduzione.

Considerando che il manoscritto le dovra' essere ritornato onde ricevere la sua approvazione, per quanto concerne traduzione, ritengo che anche se l'invio sara' fatto per via aerea, implichera' una perdita di tempo non indifferente, che potrebbe essere evitata se la traduzione potesse essere effettuata da un componente del suo personale, ottenendo migliori risultati e risparmio di tempo. Altrimenti, dietro suo consenso, potremmo pubblicare la traduzione direttamente, senza rispedirla per le eventuali correzzioni. Ci rimettiamo a Lei sul da farsi e ci regoleremo in base alle di Lei decisioni.

L'interesse suscitato dai polimeri isotattici e' grandissimo, ed attendiamo con ansia di ricevere il manoscritto.

Distinti saluti,

James F. Carley

James F. Carley
Engineering Editor

JFC:rl

MODERN PLASTICS

PUBLISHED BY MODERN PLASTICS INC. ■ 575 MADISON AVENUE, NEW YORK 22, N.Y.
PLAZA 9-2710
Cable address: BRESKINPUB

August 4, 1956

Professor Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Milano, Italy

Dear Dr. Natta:

I note that your very interesting paper on "Stereospecific Catalysts and Isotactic Polymers" has been published in the June 21 issue of Angewandte Chemie. I should appreciate your permission to publish a translation of this paper in the Technical Section of Modern Plastics. I am sure that this detailed account of your pioneering research in this field will be of interest to many of our readers. If this is agreeable to you, will you please send me copies of glossy prints of the figures used to illustrate your article.

I have also written to the Editor of Angewandte Chemie asking permission to publish a translation of this article.

It was good to see you for even a very brief visit in Washington. We are terribly disappointed that we did not get to see Mrs. Natta and help show her Washington during your weekend here. I hope that you will telephone us at our home the next time that you are in Washington over a weekend.

Our very best regards to you both.

Very truly yours,

G. M. Kline
Technical Editor

A BRESKIN Publication

HOTEL Butterfly ZÜRICH

ZÜRICH 8 KREUZSTRASSE 40
TEL. (051) 24 67 90

BAR-RESTAURANT TEL. (051) 32 28 20

GARAGE TEL. (051) 32 30 03

American

Sept. 30, 1957

Dear Professor G. Natta,

Thank you for your letter of September 11, 1957 which I received several days before I left the United States.

The ISO/TC45 Conference on Rubber started today and will be over on ~~September~~ October 5th. I, therefore, plan to proceed to Milano on Sunday, October 6th. I am looking forward to meeting you and Dr. Crespi on Monday morning, October 6th.

With best personal regards,

Very truly yours,

Juan C. Montermoso
Chief, Elastomer Branch
Quartermaster Res. and Eng. Command
U.S. Army
Natick, Massachusetts.

HEADQUARTERS QUARTERMASTER RESEARCH & DEVELOPMENT COMMAND
QUARTERMASTER RESEARCH & DEVELOPMENT CENTER, US ARMY
NATICK, MASSACHUSETTS

In reply refer to: QMREL-CE 095

date 24 August 1957

Dr. Giulio Natta
Instituto di Chemica Industriale
Milano, Italy

Dear Dr. Natta:

I am scheduled to attend the meeting of the International Standardization Organization on Rubber at Zurich, Switzerland on 30 September 1957 to 5 October 1957.

We are very much interested in polymer research and development, particularly rubber and plastics, for possible military applications. The U. S. Department of the Army has extended official travel to me in order that I may visit the leading polymer research laboratories, and to discuss the subject with the authorities in the field. In view of this mission, I would appreciate it very much if I could have permission to visit your laboratories. I plan to arrive sometime during the week of 7 October 1957.

Hoping to hear from you as soon as convenient, I remain,

Very truly yours,

Juan C. Montermoso

JUAN C. MONTERMOSO
Chief, Elastomer Branch
Chemicals & Plastics Division

HENRY GROPPE
ASSOCIATE

JOSEPH R. MARES
Industrial Chemical Consultants

P. O. BOX 686
DICKINSON, TEXAS
TELEPHONE 7-5659

COMMERCE BUILDING
HOUSTON 2, TEXAS
TELEPHONE CA 8-5025

August 7, 1956

Dear Dr. Natta,

You were very kind to write me on July 27 and I hope your visit here was sufficiently enjoyable that you will take advantage of the next opportunity to repeat the visit.

The name and address of the Goodyear plant manager is given below:

B. A. Rosinski
Goodyear Synthetic Rubber Corp.
La Porte Road
Houston, Texas

We hope there will be an opportunity to work with you and your principals in the polymer field and preliminary steps to explore such possibilities will be taken shortly.

With best wishes to you and Mrs. Natta.

Sincerely,

Joseph R. Mares

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci,
32 - Milano, Italy

C O P I A

MODERN PLASTICS

Published by Breskin Publication Inc. 575 Madison Avenue, New York 22

24, Settembre 195

Egregio Professor Natta,

In assenza del Dr. Gordon Kline, editore tecnico, mi è stata consegnata la sua lettera del 19 c.m. Probabilmente egli sarà di ritorno in due settimane e sono certo che sarà di grande interesse per lui il ricevere il di Lei manoscritto.

Purtroppo però data la distanza in cui ci troviamo, il tempo che occorrerà per riceverlo e per la pubblicazione, due mesi e forse più saranno necessari prima che possa apparire nella nostra rivista. Se Ella desidera inviare il manoscritto in francese, saremo ben lieti di farne fare la traduzione.

Considerando che il manoscritto le dovrà essere ritornato onde ricevere la sua approvazione, per quanto concerne traduzione, ritengo che anche se l'invio sarà fatto per via aerea, implicherà una perdita di tempo non indifferente, che potrebbe essere evitata se la traduzione potesse essere effettuata da un componente del suo personale, ottenendo migliori risultati e risparmio di tempo. Altrimenti, dietro suo consenso potremmo pubblicare la traduzione direttamente, senza rispedirla per le eventuali correzioni. Ci rimettiamo a Lei sul da farsi e ci regoleremo in base alle di Lei decisioni.

L'interesse suscitato dai polimeri isotattici è grandissimo, ed attendiamo con ansia di ricevere il manoscritto.

Distinti saluti.

F.to

James F. Carley
Engineering Editor

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

Ans.

March 7, 1957

Professor Giulio Natta
Director
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Please permit me to express my many thanks to you for your kind letter of February 19, 1957 concerning Mr. Jack Press' projected visit to Europe, and for your great consideration in passing that letter on to Professor Centola, from whom we have since heard.

With repeated thanks, and with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark.

HM:BL

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

February 25, 1957

Professor G. Natta
Direttore dell'Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

491

My dear Professor Natta,

With great pleasure I have read your new article in Chimica ed Industria, 39, 19 (1957); it is most interesting and of really great importance. Could we have a LETTER TO THE EDITOR for the Journal of Polymer Science? Also, please kindly send me 2 reprints of the article.

I was very sorry that I missed you in Paris in November, but I do hope to see you there in July.

Please accept for Rosita and yourself from Mimi and I kindest personal regards and best wishes.

As always, I am,

Very sincerely yours,

H. Mark

H. Mark,

HM:ff

6 Marzo 1957

Professor H.F.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
B R O O K L Y N 1 - NEW YORK, USA

Caro Professor Mark,

Ricevo la Sua gentile lettera del 25 febbraio, relativa alla lettera all' Editore pubblicata su "Chimica eIndustria".

Il mio collega, Prof.Pino, si ripromette di tradurre in inglese tale lettera che Le invierò la prossima settimana per la pubblicazione su "Polymer Science". Dato il tempo trascorso, la nuova lettera potrà essere leggermente modificata e completata. Le sarò grato se vorrà correggerla dal lato linguistico.

Arrivederci a Parigi in Luglio, dove verrà anche Rosita che sarà molto lieta di rivedere Mimi e Lei.

Cordialmente,

G. Natta

208

February 19, 1957

Professor H. MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1 - N.Y. - U.S.A.

Caro Professor Mark,

il 15.2 (A 356)

ho ricevuto la Sua lettera del 23 gennaio, relativa alla probabile visita di Mr. Jack Press in Europa nel prossimo autunno. Purtroppo in quel periodo il programma di conferenze presso il nostro Istituto è già piuttosto denso e d'altra parte, l'argomento che svolgerebbe Mr. Press è al di fuori di quelli che possono interessare l'ambiente del Politecnico. Penso che tale argomento possa interessare di più la Scuola di Perfezionamento nel campo delle fibre tessili, diretta dal Prof. Centola. Ho perciò trasmesso la Sua lettera al Prof. Centola pregandolo di scriverLe direttamente.

La prego di gradire i migliori ringraziamenti per le numerose relazioni da Lei inviatemi, che mi hanno molto interessato, e per la Sua lettera relativa al Congresso di Praga.

ArrivederLa a Parigi. Molti cordiali saluti.

Giulio Natta

18 Febbraio 1957

Professor H.F. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookl
99, Livingston Street
BROOKLYN 1 - N.Y. (U.S.A.)

Caro Professor Mark,

ricevo la Sua lettera dell'11 febbraio, relativa alla discussione che è in programma per il Meeting di Parigi sulla Nomenclatura tedesca e sono senz'altro d'accordo con la Sua proposta di estendere la cosa ad altre lingue, comprendendo tra queste l'italiano.

La prego di gradire i migliori saluti.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
R. B. MESROBIAN, ASSOCIATE DIRECTOR

208 Ann

January 23, 1957

Professor G. Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

One of our students and research associates, Mr. Jack Press is planning to visit Europe sometime during the Fall of 1957.

Mr. Press is an outstanding textile expert in the field of exhaustive testing and the appraisal of man-made fibers, one who plays an important part in the circle of textile experts in this country, and who has unusual first hand experience not only with commercially available material but also with new materials.

He would very much like to visit your laboratory while in Europe and would be glad to deliver a lecture and hold a discussion on anyone of the three topics shown on the enclosed abstracts. If you think one of these topics would be of interest to your group, please kindly let me know.

Since he will have to carry his own expenses, he would be most appreciative if you could consider contributing $80. - $120.- to his traveling expenses.

I am looking forward to hearing from you and, until then, please accept as always my kindest personal regards and best wishes.

Very sincerely yours,

H. Mark

H. Mark,

HM:ff
enclosure

142

September 19, 1956

To the
Modern Plastics
575 Madison Avenue
NEW YORK 22 - N.Y. - U.S.A.

Dear Sirs,

I have been informed by a letter of Dr.Foerst,"Hauptschriftleiter" of "Angewandte Chemie" (Heidelberg), that you would like to publish in your review an English translation of the lecture "Stereospezifische Katalysen und isotaktische Polymere" I presented in Germa on April 1956, and that appeared in the June issue of "Angewandte Chemi As I presented this lecture already some months ago, I believe it wou be preferable to publish on your review a revised paper containing mo technical data, that will be more interesting to your readers. Therefore, I should well disposed to accept your offer to publish an artic on your review, but only on condition that it will be published very quickly. As this manuscript will correspond almost completely to the lecture I shall present in Paris on November 1956, please let me know if I may send you the French manuscript and if you may have it transl ed into English, in the same way you would have it translated from German into English. Please, let me know also the needed time for publishing the manuscript from the date you will receive it.

Awaiting your kind reply, I remain,

Truly yours,

Giulio Natta

JOHN WILEY & SONS, INC.

ESTABLISHED 1807

PUBLISHERS OF BOOKS

440 FOURTH AVENUE
NEW YORK 16, N.Y.

MURRAY HILL 9-7630

October 7, 1957

Mr. G. Natta
Milan Polytechnical Institute
Milan, Italy

Dear Mr. Natta:

HIGHER OXO ALCOHOLS, by Professor Lewis F. Hatch has just been published and a copy is on its way to you with the author's compliments and ours.

We are aware of your interest in this field and feel that this book will prove useful to you. Your comments would be most welcome.

Sincerely yours,

Andrew H. Neilly, Jr.

Andrew H. Neilly, Jr.
Assistant Vice President

AHN:BB

Ringrazio [illegible]
[illegible]

Prof. Gerald OSTER
Polytechnic Institute of Brooklyn
99, Livingston Street,
BROOKLYN, 1 - NEW YORK

in plaza

Dear Professor Oster,

ricevo la Sua lettera dell'11.10.

Per quanto riguarda la pubblicazione su Scientific American avevo notato che erano state fatte notevoli "~~alterations~~ modifiche" al mio manoscritto originale.

Certamente le modifiche fatte hanno reso più comprensibile l'articolo ad un vasto pubblico e qualche concetto è stato esposto in modo anche più espressivo. Purtroppo non ho potuto rivedere con calma le bozze per mancanza di tempo, ~~mentre~~ essendomi arrivate in ritardo, mentre non ho avuto in visione le figure modificate prima della pubblicazione.

La ringrazio per l'invio del suo reprint sull'azione della luce ultravioletta sul politene ~~e~~ Sono molto lieto ~~dei~~ che i risultati ~~da Lei ottenuti~~ che confermano ~~quelli~~ ciò che ho sempre sostenuto, ossia che l'impiego di radiazioni ad alte energia (raggi γ e β), ~~che~~ rappresentano un metodo poco economico e poco selettivo per ottenere ciò che il chimico può fare meglio con mezzi ~~più blandi~~ più economici.

Appena riceverò la copia dello speech which I delivered on these subjects at the American Chemical Society Meeting on Sept.12, 1957,

./.

Lo trasmetterò a Lei e desidero alle persone interessate della Soc. Montecatini; ~~so che~~ Questa Società produce polietilene, sia con processo I.C.I. che con processo Ziegler, ma non produce manufatti in polietilene. Tempo fa ~~avevo~~ avuto ~~un~~ delle offerte dalla General Electric per il polibutene irradiato, ma la Montecatini non ha preso in considerazione la cosa per due ragioni principali : l'una è che la Montecatini stessa normalmente non fa prodotti finiti; l'altra è che da una indagine fatta l'irradiazione poteva interessare soltanto una piccola percentuale (poche unità percentuali) della produzione totale.

e quindi penso che con ciò mi sono interessato del mio processo che in confronto delle società elettriche od alle ~~o~~ compagnie che utilizzano le materie plastiche

Io credo perciò che il suo procedimento possa maggiormente interessare il campo degli applicatori. Ho degli amici sia nel campo della produzione elettrica (Soc.Pirelli), sia nelle applicazioni dei plastici. Se Lei crede sarò lieto di metterLa a contatto con le principali Società italiane che possono essere interessate in di tale argomento.

My kindest regards to you and Mrs. Oster from Mrs. Natta and myself,

Prof.G.Natta

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

13 Marzo 1957

Egregio Prof. Natta,

Lei dott. Gisela Oster ed io saremo a Milano il 25 aprile prossimo e desidereremmo avere la possibilità di conoscere lei ed i suoi collaboratori e di visitare il suo laboratorio.

Mi è noto che in Italia il 25 Aprile è giorno festivo: se per lei fosse impossibile essere in Istituto in quel giorno, la pregherei di scrivermi se mi sarà possibile almeno conoscere i suoi assistenti.

La ringrazio e mi auguro di poter fare presto la sua conoscenza.

Suo

Gerald Oster

(GERALD OSTER)
(ASSOCIATE PROFESSOR OF POLYMER CHEM.)

Naugatuck Chemical

Naugatuck, Connecticut

AIR MAIL

June 17, 1957

Di dove
risponderò?

Professor Dr. G. Natta
Institute di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta:

The visits with you have always been among the high points of my trips to Milano, and this last trip was no exception. I am very sorry that you have been ill, but your sojourn at Champoluc did give us the pleasure of a trip to the mountains which we enjoyed thoroughly. It was a pleasure also to meet your friend, Mrs. ~~Farina~~. (I am not sure about her name). She seemed like a very interesting person, and I regret that my ignorance of your language prevented my discussing her rock garden in detail.

Our technical discussions with you were most stimulating, and I hope that your new copolymer continues to look interesting as its development progresses. I hope too that arrangements can be made which will let our company aid in the development, since that I believe a joint effort will pay better and quicker dividends.

Please give my regards to Mrs. Natta and tell her that I am very sorry that I was unable to accept her luncheon invitation because of my trip home. It was a real disappointment to miss it.

Best wishes for a quick recovery and for your continued success in your polymerization research.

Best personal regards.

Very truly yours,

NAUGATUCK CHEMICAL

Lorin Schoene

D. Lorin Schoene
Director
Research and Development

DLS:mw

FILM DIVISION
OLIN MATHIESON CHEMICAL CORPORATION

RESEARCH & DEVELOPMENT DEPARTMENT
275 Winchester Avenue
New Haven 4, Connecticut
SPruce 7-7911

March 18, 1957

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico di Milano
Milano, Italy

Dear Professor Natta:

Having read your article on "Stereospecific Catalysis and Isotactic Polymers" in Modern Plastics, 34, No. 4, December, 1956, we should be most grateful to receive from you reprints of the articles by you and your staff (list attached) that were cited therein.

Very truly yours,

FILM DIVISION
Olin Mathieson Chemical Corp.

Richard N. Lewis

Richard N. Lewis
New Films Research Section

RNL:mhc

Invierame gentilmente
dreams or
2ne estrarre
di estratti
Grazie

~~172~~ 1. G. Natta, Atti Accad. naz. Lincei. Mem. Serie VIII, Vol. IV, Sez. II, fasc. 4, 61 (1955).

~~173~~ no 2. G. Natta and P. Corradini, ibid., fasc. 5, 73 (1955). no

~~176~~ 3. G. Natta and P. Corradini, Atti Accad. naz. Lincei, Rend., Serie VIII, Vol. XVII, fasc. 1, 19 (1955).

no 4. G. Natta, P. Pino, P. Corradini, F. Danusso, E. Mantica, G. Mazzanti, and G. Moraglio, J. Amer. Chem. Soc. 77, 1708 (1955).

no 5. G. Natta, J. Polymer Sci. 16, 143 (1955).

no 6. G. Natta and P. Corradini, Makromol. Chem. 16, 77 (1955).

~~179~~ 7. G. Natta, 4th World Petroleum Congress, Sect. IV/c, Preprint 13, Angew. Chem. 67, 430 (1955).

no 8. G. Natta, Chim. e Ind. (Milano) 37, 888 (1955).

~~184~~ 9. G. Natta, Makromolekulare Chem. 16, 213 (1955).

~~186~~ 10. G. Natta, P. Pino, and G. Mazzanti, Chim. e Ind. (Milano) 37, 927 (1955).

~~191~~ 11. G. Natta and P. Corradini, Atti Accad. naz. Lincei, Rend., Serie VIII, Vol. XIX, fasc. 5, 229 (1955).

~~194~~ 12. G. Natta, P. Pino, G. Mazzanti, P. Corradini, and U. Giannini, Atti Accad. naz. Lincei, Rend., Serie VIII, Vol. XIX, fasc. 6, 397 (1955).

~~195~~ 13. G. Natta, P. Corradini, and I. W. Bassi, Atti Accad. naz. Lincei, Rend., Serie VIII, Vol. XIX, fasc. 6, 404 (1955).

~~196~~ 14. P. Corradini and I. Pasquon, Atti Accad. naz. Lincei, Rend., Serie VIII, Vol. XIX, fasc. 6, 453 (1955).

non ce no

198 15. G. Natta, P. Pino, E. Mantica, F. Danusso, G. Mazzanti, and M. Peraldo, Chim. e Ind. (Milano) 38, 124 (1956).

~~203~~ 16. G. Natta, P. Corradini, and G. Dall'Asta, in press.

~~204 205~~ 17. G. Natta and L. Porri, in press.

~~197~~ 18. G. Natta, I. Bassi, and P. Corradini, Makromolekulare Chem. 18-19, 455 (1956).

198
~~179~~ } non ci sono

November 9, 1957

Mr. Andrew H.Neilly, Jr.
Assistant Vice President
John Wiley e Sons, Inc.
440 Fourth Avenue
(USA) NEW YORK 16, N.Y.

Dear Mr. Neilly,

I have just now received the book "Higher Oxo Alcohols, by Prof. Lewis F.Hatch, that you very kindly sent to me. Many thank for this sending. I will read with interest this book.

With best regards.

Sincerely yours,

G.Natta

QMREL-CE 095 24 August 1957

Dr. Giulio Natta
Institute di Chemica Industriale
Milano, Italy

Dear Dr. Natta:

I am scheduled to attend the meeting of the International Standardization Organization on Rubber at Zurich, Switzerland on 30 September 1957 to 5 October 1957.

We are very much interested in polymer research and development, particularly rubber and plastics, for possible military applications. The U. S. Department of the Army has extended official travel to me in order that I may visit the leading polymer research laboratories, and to discuss the subject with the authorities in the field. In view of this mission, I would appreciate it very much if I could have permission to visit your laboratories. I plan to arrive sometime during the week of 7 October 1957.

Hoping to hear from you as soon as convenient, I remain,

Very truly yours,

JUAN C. MONTEMOGO
Chief, Elastomer Branch
Chemicals & Plastics Division

USA

September 11, 1957

Mr. Juan C. MONTERMOSO
Chief Elastomers Branch
Chemical & Plastics Divisio
Headquarters Quartermaster
Research & Development Comm
NATICK, Massachussets

Ref. n. 1536

Dear Mr. Montermoso,

Please excuse my delay in answering your letter of August 24 QMREL-CE 095, but I have been back from an holiday period just in these days.

I see from your letter that you should wish to visit our Laboratory during the week of 7 October 1957. I will be in Milan only some days in this week and I shall be pleased to see you, but in the case that I were away in the day you come, you may address yourself to Dr. Crespi, who works here in the field of elastomers. Dr. Crespi will show you our Laboratory.

With best regards,

Truly yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

TRIANGLE 5-6412

October 11, 1957

Prof. Giulio Natta
Instituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci, 12
Milano, ITALY

Dear Professor Natta,

The September number of the Scientific American was a great success thanks to your very interesting contribution. It was very kind of you to take out time from your busy scientific career to acquaint the English-speaking public with your enormously important scientific contributions. I hope you do not mind the minor alterations which I made in your manuscript.

I have enclosed a reprint of a note which I wrote concerning the crosslinking of polyethylene by means of ultraviolet light. The method is applicable to other polyolefins as well. I have recently been able to treat 40 square meters in one second by this method. A patent on this invention has been granted to me in Italy (No. 565,442, July 20, 1957). I have also applied for a patent on ultraviolet grafting in Italy (13/315, Sept. 7, 1957).

Under separate cover I am sending you a copy of a speech which I delivered on these subjects at the American Chemical Society meeting on Sept. 12, 1957.

I would be most grateful if you would acquaint the management of Montecatini with these facts. Unfortunately, I do not know the appropriate people to approach in that company, otherwise I would not trouble you.

Sincerely and with kindest remembrances to you and Mrs. Natta from Mrs. Oster and myself,

Gerald Oster

Gerald Oster

GO:mf

Mr.Prof.C.G. OVERBERGER

BROOKLYN, 1

in fondo -

Dear Professor Overberger,

con riferimento alla Sua lettera del 6 agosto, La informo che ho preparato un articolo dal titolo "configurazione della catena degli alti polimeri e loro impacchettamento nei reticoli cristallini" che pensavo di pubblicare in italiano sulla rivista "il Nuovo Cimento". Penso che tale articolo potrebbe essere adatto per "Advances in Polymer Science".

La pregherei di comunicarmi se potete accettare la pubblicazione in inglese di un articolo che fosse precedentemente pubblicato su altre riviste in lingua italiana e dopo quanto tempo dall'invio del manoscritto la pubblicazione ha luogo su "Advances in Polymer Science".

Kind regards, etc

FORTSCHRITTE DER HOCHPOLYMEREN-FORSCHUNG
ADVANCES IN POLYMER SCIENCE

HERAUSGEGEBEN VON

J. D. FERRY, MADISON · C. G. OVERBERGER, NEW YORK · G. V. SCHULZ, MAINZ

A. J. STAVERMAN, LEIDEN · H. A. STUART, MAINZ

(SPRINGER-VERLAG/BERLIN · GÖTTINGEN · HEIDELBERG)

PROF. C. G. OVERBERGER
POLYTECHNIC INSTITUTE OF BROOKLYN

BROOKLYN 1, New York / U.S.A.
99 LIVINGSTON STREET

October 31, 1957

Professor Giulio Natta
c/o Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Tnank you very much for your recent letter. I have inquired of the editor of SPRINGER-VERLAG (Dr. H. Mayer-Kaupp) whether they would agree to publishing the manuscript entitled "The Conformation of Polymer Chains and Their Mode of Packing in the Crystalline State" - which you are submitting to IL NUOVO CIMENTO and which would be published there initially.

He doubts whether an English translation of an article which has already appeared in a reputable Italian journal should appear in ADVANCES IN POLYMER SCIENCE. Since this new journal is international, would you consider it more appropriate to publish it first in ADVANCES IN POLYMER SCIENCE?

If this could be done, I would be most grateful. On the other hand, I believe I can convince SPRINGER-VERLAG that even if this cannot be done they should publish an English translation of your article, even if it is published initially in IL NUOVO CIMENTO. I would be grateful for your opinion about this.

With kindest regards,

Sincerely,

C. G. Overberger

C. G. Overberger.

cgo-h
airmail

POLYTECHNIC INSTITUTE OF BROOKLYN
99 LIVINGSTON STREET
BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

May 14, 1957

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico de Milano
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta,

Dr. Gisela Oster and I wish to thank you for the hospitality you accorded us on our visit to Milano on April 24, 1957.

Professor Danusso kindly showed us around your laboratory and we had an interesting discussion with him.

We enjoyed very much our visit to your home and to have the honor of meeting you and Signora Natta.

As soon as the editors of Scientific American have received your article it will be quickly translated and I shall correct any errors in translation or incorrect English scientific usage. I shall advise the Scientific American editors how to properly use your diagrams and figures.

Yours truly,

Gerald Oster

Gerald Oster
Associate Professor
Polymer Chemistry

GO:mf

FORTSCHRITTE DER HOCHPOLYMEREN-FORSCHUNG
ADVANCES IN POLYMER SCIENCE

HERAUSGEGEBEN VON

J. D. FERRY, MADISON · C. G. OVERBERGER, NEW YORK · G. V. SCHULZ, MAINZ

A. J. STAVERMAN, LEIDEN · H. A. STUART, MAINZ

(SPRINGER-VERLAG/BERLIN · GÖTTINGEN · HEIDELBERG)

PROF. C. G. OVERBERGER
POLYTECHNIC INSTITUTE OF BROOKLYN

BROOKLYN 1, New York/USA,
99 LIVINGSTON STREET

August 7, 1957

Professor Giulio Natta
c/o Instituto De Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci - 32
Milan, Italy

Dear Professor Natta:

It was good to see you again in Paris. I thought you gave a very good paper; it was well organized and clearly presented.

As you will note from the enclosed pamphlet, Springer-Verlag is starting a new review journal called "Advances in Polymer Science." As you will see, we are particularly interested in short, critical reviews rather than reviews which simply are compilations of the literature. It has occurred to me that there are three or four topics in the isotactic field which might be appropriate for a short critical review; for example, you might wish to write one on catalysts systems and the termination reaction, or perhaps you might wish to write one on the structure of isotactic polymers.

I would appreciate your comments and thoughts on this matter. I hope it will be possible for you to accept our invitation to contribute to the new journal.

With kindest regards,

Sincerely,

C. G. Overberger

C. G. Overberger.

AIRMAIL

cgo-h
enc.

PICCOUMARON PICCOLYTE PICCOCIZER PICCO PRODUCTS

PENNSYLVANIA INDUSTRIAL CHEMICAL CORPORATION

CHESTER, PENNA.

July 11, 1957

Dr. Giulio Natta
Instituto Chimica Industriale del Politecnico
Milano
Italy

217 spedito

Dear Dr. Natta:

We should greatly appreciate obtaining a reprint of a paper entitled, "Isophasic Diatometric Transitions of Some Poly (Normal Alpha Olefins)", by Ferdinando Danusso, Giovanni Moraglio and yourself, which appeared in the June, 1957, issue of Journal of Polymer Science, on pages 119-122.

Please allow us to thank you in advance for your courtesy in this matter.

Very truly yours,

William J. Roberts/jso

William J. Roberts
Director of Research

WJR:jso

si ne ce ne sono tanti!

PICCOUMARON PICCOLYTE PICCOCIZER PICCO PRODUCTS

PENNSYLVANIA INDUSTRIAL CHEMICAL CORPORATION

CHESTER, PENNA.

June 5, 1956

14/11/56

Dr. G. Natta
Istituto di Chimica
Industriale del Politecnico di Milano
Italy

Dear Dr. Natta:

We should greatly appreciate obtaining a reprint of a paper entitled, "The Structure of Crystalline 1,2-Polybutadiene and of Other Syndyotactic Polymers", by P. Corradini and yourself, which appeared in the May, 1956, issue of Journal of Polymer Science, on pages 251 - 266.

Very truly yours,

PENNSYLVANIA INDUSTRIAL CHEMICAL CORP.

William J. Roberts/jga

William J. Roberts
Director of Research

WJR:jga

PETROLEUM REFINER

Specialized for Refining, Natural Gasoline and Petrochemicals

P. O. Box 2608, Houston 1, Texas

September 25, 1956

Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32 Milano
ITALY

Dear Dr. Natta:

I am sorry to have been so late in replying to your September 11th letter, but I have been away from the office on a two week trip to the East.

While in New York I had occasion to visit with Dr. Mario L. Ottolenghi, Vice President of the Chemore Corporation. We had a nice visit and discussed your excellent work as well as him showing me some samples of polypropylene. This was a most interesting and informative occasion for me.

Our normal closing date for publication is the 15th of the preceding month. For example - for our December issue of 1956, we would close on November 15th. This would mean that the manuscript should be in our hands no later than October 15th for processing and exchange of proof-sheets between you and myself. We, in all cases, exchange these proofs by air mail.

As to your request on our reprint policy, we do not normally make reprints. However, in view of your special case, we would be happy to provide approximately 200 reprints gratis. Our normal proceedure, with stateside authors, is to give them a small honorarium.

We certainly do believe an article by yourself on this new olefin polymer will be outstanding. We want to work with you in every way in its preparation and ultimate publication in the REFINER. At this late date I do not believe we could work in an article for the December issue, but this is entirely up to you and we would appreciate your early reply concerning the possibility of your making the December, 1956 issue. This would greatly aid us in our editorial plans. However, we would certainly welcome the article from you at any date that you could get it in to us. You can be assured we would not publish your article until you had ample opportunity to review and correct the proofs.

Very best personal regards.

Very truly yours,

Thomas C. Ponder
Petrochemicals Editor

TCP:it

MERCK SHARP & DOHME

RESEARCH LABORATORIES

DIVISION OF MERCK & CO., INC. RAHWAY, NEW JERSEY

January 21, 1957

Professor Giulio Natta
Polytechnic Institute of Milan
Milano, Italy

My dear Professor Natta:

It is a pleasure to write to you again and to tell you that I hope to be in Milan in February of this year. I will spend a few days with scientists from Montecatini S.A. and hope very much to have the opportunity to renew my acquaintance with you and Mrs. Natta.

You will perhaps recall that my company is interested in broadening its activities in the field of organo-chemical manufacturing. Our plans have now matured to the point where my company has decided to send a mission to Europe which will establish contacts with major producers of organic chemicals. The mission will be headed by Mr. James H. Sharp, Vice President and a member of the Board of Directors of Merck & Co., Inc. I will be responsible for the technical side of the trip. Our principal interests of inquiry lie in the fields of industrial organic chemicals, monomers, polymers, agricultural chemicals and specialty inorganics.

I should be happy if I could call on you during my stay in Milan and discuss these matters with you. My present plans place me in Milan during the week of February 18 - 22, 1957. I should appreciate very much a note from you if I could plan to see you then.

With best regards to Mrs. Natta, I remain

Respectfully yours

P. I. Pollak
Research Associate

PIP:mhc

===C O P I A==

PETROLEUM REFINER

P.O.Box 2608 - Houston 1
Texas

September 25, 1956

Prof.Giulio Natta
Istituto Chimica Industriale
Politecnico di Milano

Dear Dr.Natta,

I am sorry to heve been so late in replying to your September 11th letter, but I have been away from the office on a two week trip to the East.

While in New York I had occasione to visit with Dr.Mario L.Ottolenghi, Vice President of the Chemore Corporation. We had a nice visit and discussed your excellent work as weel as him showing me some samples of polypropylene. This was a most interesting and informative occasion for me.

Our normal closing date for publication is the 15th of the preceding month. For example - for our December issue of 1956, we would close on November 15th. This would mean that the manuscript should be in our hands no later than October 15th for processing and exchange of proof-sheets between you and myself. We, in all cases, exchange these proofs by air mail.

As to your request on our reprints policy, we do not normally make reprints. However, in view of your special case, we would be happy to provid aproximately 200 reprints gratis. Our normal procedure, with stateside authors, is to give them a small honorarium.

We certainly do believe an article by yourself on this new olefin polymer will be outstanding. We want to work with you in every way in its preparation and ultimate publication in the REFINER. At this late date I do not believe we could work in an article for the December issue, but this is entirely up to you and we would appreciate your early reply concerning the possibility of your making the December, 1956 issue. This would greatly aid us in our editorial plans. However, we would certainly welcome the article from you at any date that you could get it in to us. You can be assured we would not publish your article until you had ample opportunity to review and correct the proofs.

Very best personal regards.

Very truly yours,

F.to

Thomas C.Ponder
Petrochemicals Editor

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

February 12, 1957

Dr. Giulio Natta
Inst. Chim. Indust.
Piazza Leonardo da Vinci
Milano, Italy

Dear Mr. Natta:

We are sending you under separate post, copies of our seven Technical Reports issued during 1956, which will bring your collection up to date. The enclosed list should replace page 7 in your Index of Technical Reports.

This collection was established for the general benefit of the plastics industry in your country. We hope that it has been brought to the attention of your research personnel in education and industry and that you have found the reports interesting and valuable.

Sincerely yours,

L. F. Rahm

L. F. Rahm, Director,
Plastics Laboratory

LFR:kd
Enclosure

Ringraziare
Quando arrivano
G. Natta

Report	Date	Title
40 A	10 Jan 1956	An Apparatus for Measuring the Response of Polymeric Materials to a Sinusoidal Oscillating Strain by Bryce Maxwell A.S.T.M. Bulletin July 1956
40 B	15 Feb 1956	Detailed Structure of Copolymers from Dielectric Measurements by R. N. Work and Y. M. Trehu Jour. App. Phys. Vol 27 No. 9 1956
42 A	6 July 1956	Reductive Cleavage of Ferrocene by D. S. Trifan and L. Nicholas
42 B	1 Aug 1956	A Convenient New Form of Onsager's Equation for the Dielectric Constant of Polar Solutions by R. N. Work
43 A	26 Sept 1956	Some Experiments on Sulfur as Inhibitor for the Polymerization of Styrene by P. D. Bartlett and D. S. Trifan. Jour. of Poly. Sci. Vol 20, 457-476 1956
43 B	15 Oct. 1956	Bulk Compressibility of Polymers at Fabricating Temperatures by B. Maxwell and S. Matsuoka S.P.E. Journ. Vol 13 No. 2 Feb. 1957
43 C	15 Nov 1956	Arc Resistance: Radio Frequency Corona Resistance M. Olyphant, Jr. A.S.T.M. Bulletin 216 Sept 1956

REEVES BROTHERS, INC.

54 WORTH STREET

NEW YORK 13, N.Y.

TELEPHONE: WORTH 4-2424

TELETYPE: NEW YORK 1-111

July 25, 1956

Professor Dr. Giulio Natta
Via Mario Pagano, 54
Milano, Italy

Dear Professor Natta:

Please find herein enclosed copy of a letter I am sending today to Dr. Giustianini, Montecatini,

I was fortunate to have had the opportunity to listen to your highly interesting paper at Notre Dame University in South Bend and I wish to thank you for having given me some of your precious time for further informations on your various processes.

It is my sincere hope to find the opportunity to meet you again in not too far a future.

Best regards.

Sincerely yours,

REEVES BROTHERS, INC.

Victor L. Erlich

Victor L. Erlich

VLE:jg
Enc.

Rosten

KEEP

KEEP CHEMICAL COMPANY

50 EAST 78TH STREET, NEW YORK 21, N.Y. BUTTERFIELD 8-1884

February 7, 1957

Professor G. Natta
Istituto Di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

A long time has passed since I last communicated with you. This is because I have been ill, and confined to a hospital. Now I am feeling much better gaining in strength every day.

During my convalescent period in the hospital I read with great interest the enthusiastic notices about your work in polypropylene. Certainly judging from the unique properties of this plastic, its future is well assured. You are unquestionably starting to receive from the U.S.A. offers for license agreements, and most likely from the same well-financed companies that made agreements with Dr. Karl Zeigler on his type of polyethylene. It occured to me that I may be in a position to offer some practical assistance to you and your Montecatini associates in these licensing considerations.

In the first place, I am devoting my time exclusively to consulting work within the chemical industry. I have working with me an associate, Mr. Peter J. Ferrara, who is an experienced chemical engineer, graduate of Yale University. He worked for Carbide and Carbon for 12 years, and later worked for several other large chemical corporations. Between us, we enjoy high level contacts with the foremost chemical companies in the U.S.A.

Also, some of our own process development efforts have resulted in a few inventions for which patents have been applied for. This legal work is handled by the same firm of attorneys who acted in behalf of Dr. Ziegler in his licensing negotiations. We are on excellent terms with this legal firm.

I have no intention that this note should intrude upon these Montecatini activities, but considered that my present set-up might provide some measure of assistance, not only in polypropylene, but in other areas. Thus, I wished to advise you of my new situation.

Trusting you will convey to Mrs. Natta, the warmest regards from me and Mrs. Rosten, and with all best wishes,

Yours very truly,

M. M. Rosten

M. M. Rosten

MMR:hd

MONTECATINI

SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

ANONIMA - CAPITALE VERSATO L. 84.000.000.000

MILANO

BREVETTI E DOCUMENTAZIONE TECNICA

MILANO, (134) Via F. Turati, 18

Si prega indirizzare / Please reply to / Veuillez adresser / Adressieren Sie bitte wie folgt: Montecatini BREVETTI Via Turati, 18 Milano (Italia)

Télégrammes - Telegramme - Cables: GABBROBREV - MILANO

27 Giugno 1957

FER/lc

Egr. Sig.
Prof. GIULIO NATTA
Direttore Istituto
Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
M I L A N O

Oggetto : Mr. Russell.

Egregio Professore,

A Sua 24 corrente.
Le restituiamo la bozza di lettera da indirizzare a Mr. Russell e da Lei cortesemente rimessaci in visione.
Sul contenuto di essa concordiamo perfettamente.

Con i migliori saluti.

"MONTECATINI"

1 All.

C. C. postale 3/3711 - Cam. di Comm. 524 - Casella postale 3596 - Telefoni 6333 - 6334
Telefoni interurbani chiedere GABBRO-MILANO - Telegrammi-Télégrammes-Telegramme-Cables: GABBROBREV-MILANO

MOD. BREV 39 (A4) - 3000 - 10 56

MONTECATINI

SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

ANONIMA - CAPITALE VERSATO L. 84.000.000.000

MILANO

BREVETTI E DOCUMENTAZIONE TECNICA

FER/lc

MILANO, (134) 14 Giugno 1957
Via F. Turati, 18

Si prega indirizzare / Please reply to / Veuillez adresser / Adressieren Sie bitte wie folgt: Montecatini, BREVETTI, Via Turati, 18, Milano (Italia)

Télégrammes - Telegramme - Cables: GABBROBREV - MILANO

Egr. Sig.
Prof. GIULIO NATTA
Direttore
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
MILANO

Oggetto : Mr. Russel.

Ci riferiamo alla Sua lettera del 30 maggio u.s. indirizzata al nostro Amministratore Delegato e in copia al nostro Ing. de Varda.

Il Sig. Russel è stato effettivamente a Terni alcune ore nell'ottobre del 1955. Ella comunque, e ciò su parere espresso dal nostro Amministratore Delegato, può tranquillamente rispondere al Sig. Russel in termini negativi, negando cioè che gli siano mai stati mostrati dei filamenti di polipropilene.

Con i migliori saluti.

"MONTECATINI"

Opp. Mr Russ
con rif. Vs 14 g
Vi allego copia
della mia
risposta a Mr Russel

October 15, 1957

Mr.Prof. C.G.OVERBERGER
Polytechnic Institute of Brooklyn
99, Livingston Street
BROOKLYN, 1 - N.Y. - U.S.A.

Ref.No.1451

Dear Professor Overberger,

With reference to your letter of August 6, I beg to inform you that I have prepared a topics on "The Conformation of Polymer Chains and their Mode of Packing in the Crystalline State", which I intended to publish in Italian on the Review "Il Nuovo Cimento". I think that the said topics could be appropriate for "Advances in Polymer Science".

I would appreciate to know if you can accept the English publication of a topics which had previously been published on other Italian reviews and after how much time from the remittance of the manuscript it is published on "Advances in Polymer Science".

With kindest regards.

Sincerely yours,

(Prof.G.Natta)

September 11, 1957

Mr. Prof. C.G. OVERBERGER
Polytechnic Institute of Brooklyn
99, Livingston Street
BROOKLYN, 1 - N.Y. (U.S.A.)

Ref.n.1451

Dear Professor Overberger,

Please excuse my long delay in answering your kind letter of August 7, 1957, but I have been back to Milan just in these days.

I am pleased to be informed that Springer-Verlag is starting a nex review journal called "Advances in Polymer Science", and I appreciate your kind proposition to write some topics.

In this moment I am very busy but I hope, next months, to find the time to write some topics in the isotactic field, eventually one on the structure of isotactic polymers, one on the termination reactions and one on the stereoblock polymers.

With kindest regards and best wishes also to Mrs.Overberger.

Sincerely,

G.Natta

1 luglio 1957

Rif.N.1266/rl

Professor Gerald OSTER
Polytechnic Institute of Brooklyn
Polymer Chemistry - Dept.Chemistry
99 Livingston Street
BROOKLYN 1 - NEW YORK - U.S.A.

Egregio Professore,

desidero informarLa che il Professor Natta è stato lungamente malato ed ha dovuto lasciare per un certo periodo di tempo il suo lavoro qui al Politecnico. Ha trascorso un periodo di convalescenza a Champoluc, in montagna, dove è tornato in questi giorni dopo una brevissima scappata a Milano.

Mi ha incaricata di informarLa che, siccome l'articolo per la rivista "Scientific American" era pronto ma non erano ancora stati fatti i disegni, ha fatto fare la traduzione qui in Italia per guadagnare tempo. Il professore prevede di tornare a Milano verso il 10 di luglio e spedirà immediatamente il manoscritto inglese completo di disegni.

Ho ricevuto stamani un Italcable da Mr.Flanagan, nel quale chiede a che punto è l'articolo del Professore. Ho subito risposto, ma La pregherei di informare Mr.Flanagan che il ritardo è dovuto alla malattia del Professore.

RingraziandoLa, La prego di gradire i migliori saluti.

R.Lamma (segretaria)

To Prof. Gerald Oster

seems that the irradiation will be used only in a small percentage (a few units per cent) of the total polyethylene production.

I therefore think that your profess may mostly interest the fields of Companies which transform polyethylene in end products. I have some friends both in the electric and in the plastic fields. If you wish, I shall be glad to put you into contact with the principal Italian Companies that may take an interest in such subject.

With kindestregards to you and Mrs. Oster from Mrs. Natta and myself.

Sincerely yours,

(Prof. G. Natta)

October 24, 1957

Professor Gerald OSTER
Polytechnic Institute of Brooklyn

99, Livingston Street
BROOKLYN, 1 - New York - U.S.A.

Ref.No. 1763

Dear Professor Oster,

I received your letter dated October 11, 1957. As to the publication on the Scientific American, I had remarked that considerable modifications had been made in my original manuscript. Doubtlessly, such modifications made my paper more comprehensible to a vast public and some ideas were exposed in a more expressive way. Unfortunately I had not the time to review carefully the proof-sheets, as they reached me, without the new figures, with delay.

I thank you for sending me your reprint on the action of ultraviolet light on polyethylene. I am very glad that you succeeded in obtaining excellent results by this method. They confirm what I always affirmed, that is that the use of high energy radiations (γ and β rays) does not represent an economic and selective method to obtain what a chemist may obtain better and with greater yields with more economic means.

As soon as I receive the copy of the speech, which you delivered on these subjects at the American Chemical Society Meeting on Sept.12, 1957, I shall send it, if you wish, to the people concerned of the Montecatini. This Company produces high pressure and low pressure (Ziegler) polyethylene, but does not produce polyethylene end products; I therefore think that the Montecatini will be less interested in your process than electric Companies or plastics Companies, which transform the polyethylene in end products. Some time ago, the Montecatini received a proposal from the General Electric for licencing the production of irradiated polyethylene, but the Montecatini has not taken such proposal into consideration on account of two principal reasons: the one is that the Montecatini, in general, does not produce the end products; the other is that it

./.

Mai 22, 1957

Mr. Richard N. Lewis
New Films Research Section
Olin Mathieson Chemical Corp.
275 Winchester Avenue
NEW HAVEN 4
(Connecticut, U.S.A.)

Rif.n. 676/rl

Dear Mr. Lewis,

with reference to your letter of March 18, 1957, I wish to inform you that I am send-in, under a separate cover, some of the reprints you requested. The reprints No. 2, 4, 5, 6, 8, 15 of your list are no available.

Very truly yours,

R. Lamma (secretary to Prof. Natta

20 Marzo 1957

Egr.Prof. Gerald Oster
Associate Professor of Polymer Ch
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1 - N.Y.

N° 636/

Egregio Professore,

ricevo la Sua del 13 corrente dalla quale apprendo che Lei e la Dr.sa Gisela Oster sarete a Milano il 24 aprile prossimo.

Spero che possiate rimanere a Milano anche altri giorni perchè il 25 aprile è giorno festivo e il nostro Laboratorio è completamente chiuso.

Io stesso sarò fuori Milano perchè il giorno 25 è l'anniversario del mio matrimonio e mia moglie ed io abbiamo deciso di trascorrerlo fuori di Milano.

Se Lei rimane La pregherei di farmi sapere qual'è il Suo indirizzo a Milano affinchè io possa avvisarLa nel caso che anticipassi il ritorno ad un'ora non troppo tarda della sera.

Sono spiacente del contrattempo ma spero proprio che Lei possa restare a Milano anche il giorno 26. Sebbene molti miei collaboratori siano in quel periodo in ferie a causa della vacanze pasquali, certamente però Lei potrà in tale giorno visitare il mio Laboratorio.

I migliori saluti

(Prof. G.Natta)

1st February 1958

Mr. P.I. POLLAK
Research Associate
" Merck Sharp & Dohme
Division of Merck & Co.Inc.
RAHWAY, NEW JERSEY (U.S.A.)

Dear Mr. Pollak,

I am very glad to know your next visit in Milan and Mrs. Natta and I will be very happy to meet you during your trip.

With best regards, I remain

Very truly yours,

(Prof.G.Natta)

July 26, 1957

Mr. E. S. PROSKAUER
Hotel Monte Verità
Ascona (Svizzera)

Dear Mr. Proskauer,

Prof. Natta, before leaving Milan, charged me to send you all his reprints of papers concerning the isotactic polymers. I am sending you these, under separate cover.

Best regards.

Sincerely yours,

R. Lamma (secretary)

April 17, 1957

Mr. L. F. Rahm, Director
Plastics Laboratory
Princeton University
30 Charlton Street
PRINCETON - New Jersey - U.S.A.

N. 344/rl

Dear Mr. Rahm,

I wish to thank you very much for the very interesting Technical Reports you sent to me, that I placed in our Library to the attention to all the people that frequent this Polytechnic Institute.

With best regards, I am,

Very sincerely yours,

Giulio Natta

for the purpose. Would it be possible for you to supply such quantity?

In South Bend, Professor Natta very kindly talked to me also about a new type of linear polyethylene which characteristics differ from both the Ziegler and the Phillips type. Professor Natta called this polyethylene "inert" and told me that you have this polymer of high density (0.96 to 0.97) available in pilot plant quantities under the name Rotene L. Would it be possible to have similar quantities of this material supplied by you for our experimentation?

The main purpose of this letter is to establish contact between our companies which we believe could be of mutual interest.

Very truly yours,

REEVES BROTHERS, INC.

Victor L. Erlich

VLE:jg
ccs: Professor G. Natta
Dr. L. Luciano

JULY 25, 1956

Dr. Pierro Giustianini
Montecatini Societa Generale
Via, F. Turati, 18
Milano, Italy

Dear Dr. Giustianini:

Sometime ago Dr. L. Luciano of your New York Office established contact between your company and ours because of our mutual interest in thermoplastic polymers, you as manufacturers and we as processors. In order to show you the scope of our interest, we are including here copy of reprint of a paper recently published which deals with polyethylene monofilaments.

The writer intended to meet you during your visit to the States but your schedule was so close that this meeting could not be arranged. However, I was fortunate to meet Professor G. Natta last week on July 16 when he gave his last conference at Notre Dame University in South Bend, Indiana.

Reeves Brothers is a textile concern processing natural and synthetic fibers. In our plastic division we are extruding polyethylene filaments and are, therefore, obviously interested in all developments. At the present time, we are supplying to the trade filaments of the conventional high pressure type and on the other hand we have introduced high tenacity filaments produced from linear polyethylene as far as available.

Although these high tenacity polyethylene filaments have found acceptance in the trade for different industrial purposes, we as producers are not entirely satisfied with this material.

The characteristics of the isotactic polypropylenes as described by Professor Natta are extremely promising but wide spread application in the textile field depends upon so many factors that real evaluation will be possible only when this new polymer will be available from industrial production on one side and when conditions of processing to high strength filaments will be established and their properties correctly evaluated. It is our understanding that you have this polymer available in some pilot plant quantities. Our experimentation with new polymers is based on small scale industrial extrusion and orientation, therefore, we need between 50 and 100 lbs.

(more)

20th. February, 1957

Mr. M.M. ROSTEN

KEEP Chemical Company
50 East 78th Street
NEW YORK, 21 - N.Y.(U.S.A.)

Dear Mr. Rosten,

I was very glad to receive your letter of February 7, and I am sorry to know that you have been ill so long. I do wish that you recover very well in a very short time.

In regard to what you said to me about ~~your~~ my work, I wish to inform you that all my time is completely spent for the research work. All negotiations for license agreements are therefore carried out only by Montecatini Co.

Mrs. Natta joins me in sending Mrs. Rosten and you the best wishes.

Sincerely yours,

(Giulio Natta)

4 luglio 1957

Mr. Harry A. RUSSELL
Technical Director and Vice President
THE PANTASOTE COMPANY
415 Madison Avenue
NEW YORK, 17 - N.Y., U.S.A.

Dear Mr. Russel,

many thanks for your kind letter that I received on May 25.

The field of polypropylene fibers seems to become very interesting and I beleive that it may be more important than those of other fibers, as polyvinylchloride, polyacrylonitrile and polythene, that most probably you saw there in the occasion of you visit at Terni, two years ago.

With best regards.

Sincerely yours,

G.Natta

24 Giugno 1957

Spett. Società MONTECATINI
Direzione Ufficio Brevetti
S e d e

Rif. N. 1180/rl

Oggetto : Mr. Russell

Con riferimento alla Vostra lettera del 14 u.s. (FER/lc), Vi invio in visione copia della lettera che avrei preparato per Mr. Russell, pregandoVi di comunicarmi se tale lettera può andare bene.

Distinti saluti.

(Prof. G. Natta)

All/

HARRY A. RUSSELL

MADISON AVENUE
NEW YORK N. Y.
17

Prof. Guilio Natta
Instituto de Chimical
Industriale del Polytechnical
Piazza Leonardo da Vinci 35
Milan, Italy

Dear Professor Natta:

During my recent visit to the Milan Fair I walked through the Milano Exhibit and saw the most interesting display of your polypropylene polymer. You certainly are to be congratulated on the excellent properties of the polymer and the fantastic application of the material as indicated by some of the uses on exhibition at the fair.

It certainly has come a long way from the filament of polypropylene which you showed me about two years ago at Terni. A person in my position can appreciate the amount of ingenuity and hard work that goes into a program of the type that polypropylene is such an excellent example of, and therefore I want to express my admiration and congratulations.

Best regards,

Harry A. Russell

Harry A. Russell
Technical Director and
Vice President

THE PANTASOTE COMPANY

21-5

August 26th, 1957

Mr.Prof.. C.G. Overberger
Polytechnic Institute of Brooklyn
99, Livingston Street
BROOKLYN, 1 - N.Y. (USA)

Dear Prof.Overberger,

7.8.57

your letter came during Prof.Natta's summer vacation. Prof.Natta will be here again at the beginning of September, and you should be so kind to wait for an answer after his return

With best wishes,

L.Einaudi (secretary to Prof. Natta)

Baldwin

STAUFFER

USA

Nº 1826

Ricevo la vostra lettera del 30 ottobre e vi ringrazio per l'invio delle copie della traduzione inglese del lavoro pubblicato su Angewandte Chemie.

Appena riceverò ~~kkm~~ gli estratti del lavoro apparso su Angewandte Chemie ve ne invierò una copia .

Coi migliori saluti

G. NATTA

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

PER LA RISPOSTA TELEFONATE AL N. 8838

TELEGRAMMA *via Italcable via Italo Radio*

16-8.1957 MILANO

Spazio riservato agli estremi di ricevimento

DISTRIBUTION WILL BE TO TRADE ONLY WITH FULL CREDIT TO YOU NO DISTRIBUTION TO GENERAL PUBLIC PLANNED ANGEWANDTE CHEMIE AGREES WITH OUR PROPOSAL IF WE RECEIVE YOUR PERMISSION PLEASE EXPEDITE REPLY = STAUFCHEM = BALDWIN +

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

PER LA RISPOSTA TELEFONATE AL N. 8838

1957 AGO 16 1 31

TELEGRAMMA *via Italcable via Italo Radio*

16-8.1957 MILANO

S G - ZMM

Spazio riservato agli estremi di ricevimento

28

LT PROFESSOR NATTA PIAZZA LEONARDO DA VINCI 32 MILANO

= REQUEST PERMISSION TO MAKE LIMITED FREE DISTRIBUTION OF ENGLISH TRANSLATION OF COMPLETE PAPER AND BIBLIOGRAPHY BY YOU AND YOUR ASSOCIATES TITLED KINETIK DER STEREOSPEZIFISCHEN POLYMERISATION DES PROPYLENE ZU ISOTAKTISCHEN POLYMEREN WHICH WAS PUBLISHED IN VOL 69 OF ANGEWANDTE CHEMIE PAGES 213-219 +

mandato al Prof Natta

ITALCABLE

(STUM175/ITA120/27/ZIZ/)

PER EVENTUALI INDICAZIONI
TELEFONATE AL N. 877.444
(4 LINEE)

1/28 *Data* 28/8 *Ore* 0025

PROF. NATTA
VIA L. DA VINCI, 32
MILANO

ISTITUTO DI CHIMICA INDUST. 28 AGO 1957 R

AVVISO di

Stauffer USA

SERVIZIO

MILANO 28 AGO 1957

SEGUENTE DA NEWYORK:

IL MITTENTE DEL TELEGRAMMA LUM22/IAT1730 DEL 15/8/57 A VOI DIRETTO, GRADIREBBE UN SOLLECITO RISCONTRO.

NOTA DI MILANO: DAI NS/ DOCUMENTI, IL TELEGRAMMA IN QUESTIONE, RISULTA RECAPITATO ALLE ORE 08,48 DEL 16/8/57.

ITALCABLE

MILANO, 28/8/1957

E' il telegramma di Baldwin. Le allego che risposta darle senza.

August 23th, 1957

MINGH

USA

Mr. Baldwin
Stauffer Chemical Co.
Research Dep't., Bldg 1
Chauncey
NEW YORK (USA)

Dear Mr. Baldwin,

I have received your telegram of August 16th just now, as I have been absent for my summer vacation. I and my associates have no objection to your making a limited free distribution of the English translation of the complete paper and bibliography titled "Kinetik der stereospezifischen Polymerisation des Propylens zu isotaktischen Polymeren" which was published in vol.69 of Angewandte Chemie, pages 213-219.

I should like only to see, before printing, the English manuscript, to verify that it corresponds exactly to the German text.

I shall be pleased also to have a certain number of copies of the English translation.

With my best regards,

(Prof.G.Natta)

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N.Y.

Stauffer CHEMICALS SINCE 1885

CABLE ADDRESS "STAUFCHEM"

VIA AIR MAIL

March 20, 1957

Professor Guilio Natta
Instituto Vi Chimica Industrale
Piazza Leonardo Da Vinci 32
Milan, Italy

705

Dear Professor Natta:

Recently we have been in touch with Dr. Mario L. Ottolenghi, Vice President of Chemore Corporation, a Montecatini affiliate, in New York City, regarding two pounds of titanium trichloride which we gave to him to forward to you. Dr. Ottolenghi has suggested we write directly to you regarding our material.

Since sending the sample of titanium trichloride we have made several significant improvements in our product. Most of our initial production lots of titanium trichloride we have discovered were contaminated with titanium tetrachloride and also packaged under a carbon dioxide atmosphere. It is believed packaging under a carbon dioxide atmosphere has caused the formation of the white particles (TiO_2) which you may have noticed in the material sent to you.

By screening the titanium trichloride received from us under a nitrogen or argon atmosphere, you can easily remove the white particles. Heating (80-100°C.) the material under a vacuum for 5 or 6 hours will readily remove the titanium tetrachloride. However, rather than have you go to this trouble, we would prefer to send a new sample of our improved material. Therefore, arrangements have already been made to forward two pounds, under separate cover via air express, to your attention at no charge.

We would appreciate receiving any comments you may care to offer on the results of your test with our titanium trichloride. In the meantime, if we can be of any additional assistance, please do not hesitate to contact us.

Very truly yours,

STAUFFER CHEMICAL COMPANY

C. C. Baldwin, Jr. ga.

C. C. Baldwin, Jr.
Market Development Dept.

CCBJR:ga
cc - Dr. B. Orsoni
Dr. M. L. Ottolenghi

Rull.

September 18, 1957

Mr. C. C. BALDWIN, Jr.
Market Development Dept.
STAUFFER CHEMICAL COMPANY
380 Madison Avenue
NEW YORK 17 - N.Y.- U.S.A.

Rif. No. 1556/rl

Dear Mr. Baldwin,

I received yesterday your letters of September 6, and 12, 1957.

In regard to your sending to Dr. Ballabio, Director of SEID, Montecatini Co., of five pounds of your titanium trichloride, that were divided in three different samples, they were not completely equal each other, most probably some of them were a little deteriorated. I received only a sample, that is like to those prepared by us, but not completely.

I know that Dr. Ballabio ordered to you some greater samples for trials in plant for commercial production. As soon as Dr. Ballabio receive the new samples, I shall ask for a little portion to be examined by my staff.

In regard to my last article, that will appear on "Makromolekulare Chemie", I am sorry but I have not an English translation.

With best regards.

Sincerely yours,

Giulio Natta

B O Z Z A

STAUFFER

Ricevo la Vostra lettera del 6 e 12 settembre.

Per quanto riguarda la Vs. fornitura di 5 lb. ricevuta dall'Ing. Ballabio che era divisa in 3 diversi campioni, essi non sono risultati del tutto uguali uno dall'altro; probabilmente qualcuno di essi si era un poco alterato.

Io ho avuto un solo campione che si avvicina come comportamento ad altri campioni fatti qui, ma non corrisponde esattamente.

So che l'Ing. Ballabio vi ha ordinato dei quantitativi maggiori che potrà provare in impianti di produzione commerciale. Appena l'Ing. Ballabio riceverà la nuova ordinazione, Gli chiderò di darmi un campione che mi riprometto di esaminare io stesso.

Per quanto riguarda l'ultimo articolo in corso di pubblicazione su "Makromolekular Chemie", sono spiacente di non disporre di una traduzione in inglese.

Distinti saluti.

B-714

STANDARD OIL COMPANY
(INDIANA)

RESEARCH DEPARTMENT
WHITING RESEARCH LABORATORY
P. O. BOX 431, WHITING, INDIANA

January 3, 1957

Prof. G. Natta
Politecnico Milano
Piazza Leonardo da Vinci 34
Milano, Italy

Dear Prof. Natta:

Our Company is trying to establish a basic polymer research team in addition to those research groups which are active in the more applied and developmental fields of polymer chemistry. The search for suitable personnel is, of course, a difficult task under the present conditions. At present we have need for one or two young Ph.D's with a solid polymer background.

I wonder whether you have any graduate students at this time whom you could recommend and who would be interested. I might say that these positions offer the opportunity of entering a polymer research organization which will undoubtedly be considerably expanded within the next few years.

I am aware of the fact that there probably will be certain technical difficulties such as arran ging for interviews, visa formalities etc. However, these technicalities can probably be taken care of by the Company if there is a genuine interest.

I would just like to supply some very general information: Standard Oil (Indiana) is one of the largest oil companies in this country (presently the third largest). The Research Department at Whiting (a suburb of Chicago) has about 1,000 employees, about 50% of whom are technical. A certain fraction of research chemists are working in the field of petrochemicals and polymers. More detailed information will, of course, be supplied to the individual candidates.

Please consider this letter an informal and personal approach. If there are any suitable candidates I would appreciate it if they would contact me so that I can arrange for the usual formalities such as interviews, detailed information, etc.

Best regards and best wishes for the New Year.

Sincerely yours,

H. P. Frank

H. P. FRANK

HPF/eh

p.s.: I left Brooklyn shortly after the summer and I am now working here with Standard.

Mario F. Sartori
602 Northside Drive, North Hills
Wilmington 3, Delaware

Wilmington, Dic. 14,1957

Egregio Professore,

mi permetto inviarle queste brevi notizie sul suo propilene, pubblicate recentemente dal Chemical and Engineering News (Dec.2,1957), per il caso che a lei non siano ancora pervenute.

La nostra vita qui procede sempre bene, tranquilla e laboriosa. Stiamo progettando un viaggio in Italia in occasione del Congresso Nazionale di Chimica, che credo dovrebbe tenersi a Torino nel prossimo maggio. Avremo così occasione di fermarci a Milano e rivedere la Sua Signora e lei. Lo scorso maggio fummo anche in Italia, a Roma e Positano. Purtroppo il tempo passo' così veloce che non ci fu possibile fermarci a Milano. Le promettiamo una visita per il prossimo maggio.

Anche da parte di mia moglie, molti sinceri auguri per il Natale e Nuovo Anno alla Sua Signora ed a lei.

Cordialmente

Mario Sartori

Ringraziare per la visita
Cristiani!
Bellando
Ornato

VIA AIR MAIL

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N.Y.

CABLE ADDRESS "STAUFCHEM"

Stauffer CHEMICALS SINCE 1885

September 12, 1957

Prof. G. Natta
Instituto di Chimeca Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Prof. Natta:

1556

Thank you for your letter of September 5, 1957 and accompanying corrected copy of our English translation of your recent article in "Angewandte Chemie".

We are now in the process of making up a large number of copies of the English translation. As soon as they are available, I will send you three dozen copies.

We would very much like to receive a copy of your new article which will appear in "Makromolekular Chemie" next month entitled," Kinetik der Kettenwachstums und Abbruchsprozesse bei der stereospeznifischen Polymerisation des Propylens". If possible, we would appreciate receiving a proper English translation of this article, if there is someone in your organization who can do this for us.

We were pleased to learn through Dr. Ottolenghi of the Chemore Corporation, New York City, that Dr. Ballabio of the Indro Carbon Division of Montecatini, Milan, Italy, has reported our titanium trichloride was satisfactory in laboratory tests. Montecatini now plans to purchase 200 kilos of titanium trichloride from us for plant trials.

With best regards,

Very truly yours,
STAUFFER CHEMICAL COMPANY

C. C. Baldwin, Jr.
Market Development Dept.

ccb,jr;ps

cc: Dr. Mario Ottolenghi

STAUFFER CHEMICAL COMPANY
380 MADISON AVENUE
NEW YORK 17, N.Y.

CABLE ADDRESS
"STAUFCHEM"

VIA AIR MAIL

September 6, 1957

1555

Prof. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Prof. Natta:

Dr. Ottlenghi has recently been in touch with us regarding your interest in receiving copies of our translation of your paper, "Lettere alla Direzions Polimerizzazione "stereospecifica" delle alpha-olefine" which appeared in La Chimica e l'Industria in 1956. Attached are three copies for your use.

We wish to apologize for not having obtained your permission to distribute free copies of this translation to interested technical people in the United States. Our oversight was because of inexperience on our part in such matters. It is hoped you will find the translation is a correct presentation of the information in the original paper.

In late June of this year, we sent five pounds of our titanium trichloride to the Chemore Corporation in New York City who, in turn, planned to forward this material to Dr. Ballabio, Idrocarbon Division, SEID, Montecatini Societa Generale, for evaluation. This titanium trichloride we feel was definitely a better quality than previous samples shipped. We are very much interested to know the results of Dr. Ballabio's evaluation of this latest five pounds of our material.

If we can be of any additional assistance, please do not hesitate to call upon us.

Very truly yours,
STAUFFER CHEMICAL COMPANY

C. C. Baldwin

C. C. Baldwin, Jr.
Market Development Dept.

ccb:ps
encl.

cc: Dr. Mario Ottlenghi, V.P.
Chemore Corporation
21 West Street, NYC

September 5th, 1957

Mr. C.C. Baldwin, Jr.
Market Development Dept.
STAUFFER CHEMICAL Co.
380 Madison Avenue
NEW YORK, 17 - N.Y.

Ref. 1499

Dear Mr. Baldwin,

with reference to your letter of August 29th, I am going to send you a copy of your English translation of our paper "Kinetik der stereospezifischen Polymerisation des Propylens zu isotaktischen Polymeren" with some slight corrections.

I beg you to send to me some dozens of copies of your translation.

I should like also to inform you that a more complete paper on the kinetics of polymerisation with $TiCl_3$ is in the press of "Makromolekular Chemie", and will appear next month (°) It comprises a study on the mechanism of the termination processes of the polymeric chain and on the causes which lead to different molecular weights. If you would like to make an English translation of this last paper, I may send to you a copy.

With best regards,

Prof.G.Natta

(°) with the title: "Kinetik der Kettenwachstums und Abbruchsprozesse bei der stereospezifischen Polymerisation des Propylens.

Encl.

VIA AIR MAIL

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N.Y.

CABLE ADDRESS "STAUFCHEM"

August 29, 1957

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter of August 23, 1957 giving us permission, subject to your approval of our English translation, to distribute your paper titled "Kinetik der stereospezifischen Polymerisation des Propylens zu isotaktischen Polymeren."

Enclosed are six copies of our translation. After you have had an opportunity to read the translation, we would appreciate receiving your comments and approval as soon as possible.

Thanking you in advance, I am

Very truly yours,

STAUFFER CHEMICAL COMPANY

C. C. Baldwin, Jr.
Market Development Dept.

CCB,JR:mag
Enc.

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N.Y.

CABLE ADDRESS
"STAUFCHEM"

VIA AIR MAIL

October 30, 1957

R 1896

Professor G. Natta
Instituto di Chimeca Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Arrangements have been made to send to your attention, under separate cover, two dozen copies of our translation of your article which appeared in the April issue of Angewandte Chemie. In your last letter to us you requested these copies.

If possible, we would like to receive a copy of your article which you mentioned would appear, or has recently appeared, in an issue of Makromolekulare Chemie.

Very truly yours,

STAUFFER CHEMICAL COMPANY

C. C. Baldwin

C. C. Baldwin, Jr.
Market Development Dept.

CCB,JR:mag

cc: Dr. Mario Ottolenghi

November 6, 1957

Mr. C.C. BALDWIN, Jr.
Market Development Dept.
STAUFFER CHEMICAL Co.
380, Madison Avenue
NEW YORK 17, N.Y. USA

Ref.n.1826/rl

Dear Mr. Baldwin,

I received your kind letter of October 30, 1957 and I thank you very much for your sending the copies of your translation of my article appeared on Angewandte Chemie.

As soon as I receive the reprints of my paper appeared on Makromolekulare Chemie, I will send to you a copy.

With best regards.

Very truly yours,

G. Natta

STAUFFER CHEMICAL COMPANY
380 MADISON AVENUE
NEW YORK 17, N.Y.

CABLE ADDRESS
"STAUFCHEM"

VIA AIR MAIL

September 25, 1957

Professor G. Natta
Instituto di Chimeca Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Thank you for your letter of September 18, 1957 advising me of the disposition and results of the tests on recent samples of our titanium trichloride sent to you and Dr. Ballabio. Arrangements have been completed to ship to Dr. Ballabio an additional 400 pounds of our titanium trichloride. Quality control tests on this new titanium trichloride being sent indicate it is probably the best material we have made to date. The improvement in quality is as a result of some modifications in our semi-commercial production unit.

In regard to your article which will appear in Makromolekulare Chemie, I would like to receive a reprint of the article or a copy of the magazine issue containing the article. If there should be any cost involved, I will be happy to pay it.

Sincerely yours,

STAUFFER CHEMICAL COMPANY

C. C. Baldwin, Jr.

C. C. Baldwin, Jr. mag.
Market Development Dept.

CCB,JR:mag

cc: Dr. Mario Ottolenghi

Invitat cotre la
Makromol. Chem.
[illegible]

ANGELO SERVI
8240 East Suva Street
Downey, California
TOpaz 2-6126

18 Settembre 1957

Egregio Dr. Natta,

se lei ricorda ancora due dei suoi studenti che,quasi 35 anni fa,al Politecnico di Milano,si sedevano in prima fila,le fara' piacere sapere che questi due studenti,la ex Sig.na Emma Finzi e suo marito,hanno letto il suo articolo :"How giant molecules are made" sul Scientific American.

Anche come profani in materia abbiamo trovato l'articolo di estremo interesse e l'abbiamo potuto discutere anche col padre di mia moglia,Dr. Giorgio Finzi,ormai di 89 anni,malandato in salute ma dalla mente ancora brillante.

Il suo articolo mostra in modo chiaro alcuni dei progressi fatti in Italia nel suo campo;presenta una interessantissima similitudine fra i suoi "complessi" e le cellule viventi,lascia prevedere sviluppi oggi ancora impensati e contiene un entusiasmo e quasi una "poesia" che destano ammirazione.

Come suo ex studente,mi permetta,egregio Professore, di inviarle anche a nome di mia moglie,le congratulazioni più sincere e la speranza che altri suoi articoli simili possano apparire nei giornali americani.

Cordialmente

Angelo Servi

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY

SYRACUSE 10, NEW YORK

4 July 1957

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Plazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of 24 June. The date suggested by you, Tuesday, July 30, will be fine and it suits me perfectly. I will let you know when we meet in Paris whether I will arrive on Monday night or Tuesday.

Looking forward to seeing you and with kind regards,

Yours very sincerely,

Michael Szwarc

MS/eb

Michael Szwarc
Research Professor

STATE UNIVERSITY OF NEW YORK
COLLEGE OF FORESTRY
SYRACUSE 10, NEW YORK

April 30, 1957

Professor Natta
Department of Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

In a recent letter Professor Pino wrote that he informed you of my desire to visit you at the Polytechnic Institute of Milan. He stated that you proposed a date before the Paris Meeting. However, that would be quite impossible as I will arrive in Europe just prior to the meeting. Therefore, I hope that a later date, perhaps during the latter part of July, will be suitable.

Looking forward to hearing from you regarding this matter and with kind regards,

Very sincerely yours,

Michael Szwarc
Research Professor

Lo conosce bene Gentile

MS/eb

STATE UNIVERSITY OF NEW YORK
COLLEGE OF FORESTRY

SYRACUSE 10, NEW YORK

23 May 1957

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Plazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta;

Thank you for your kind letter of May 16. I am glad to know that we will be able to get together for a visit, and I suggest as possible dates Monday, July 29, Tuesday, July 30 or Wednesday, July 31. Also, I shall be most happy to give a lecture on the subject which you suggested, namely "Living Polymers".

Will you please let me know which of the above dates will be most suitable for you?

Looking forward to seeing you in Paris and with kind regards,

Very sincerely yours,

Michael Szwarc

Michael Szwarc
Research Professor

MS/eb

27

9 Gennaio 1957

Mr. H.P. FRANK
Standard Oil Co.
Research Department
P.O. Box, 431
WHITING, Indiana (U.S.A.)

Caro Mr. Frank,

ho appreso dalla Sua lettera del 3 genn. che ha lasciato Brooklyn per la Standard Oil (Indiana) ed io Le faccio molti auguri di successo per la Sua nuova occupazione.

Per quanto riguarda il Suo desiderio di avere dei nominativi di chimici, Le assicuro che La terrò informato qualora si presentassero dei giovanni con preparazione adatta che desiderano venire negli Stati Uniti.

Tra i miei allievi, non vi è in questo momento nessuno che sia disponibile e d'altra parte il mio Istituto è aggregato alla scuola di ingegneria, dove gli allievi hanno una buona preparazione di ingegneria chimica, ma una limitata preparazione chimica. Io stesso, per le mie ricerche, devo ricorrere a dei chimici che provengono da altre università.

Ringrazio per gli auguri che ricambio vivamente, e Le invio i miei migliori saluti.

(Prof. G. Natta)

Am

24 Dicembre 1957

Egregio Dr. Mario F.Sartori
502 Northside Drive, North Hills
Wilmington 3, Delaware USA

N° 2136/

Egregio Dottore,

La ringrazio delle notizie che Lei mi invia con la Sua lettera del 14 corrente mese.

Avevo avuto dagli Stati Uniti, anche da altra fonte, la notizia che la Hercules Powder ha dichiarato che intende produrre polipropilene.

Desidero informarLa che la Hercules Powder non dispone di alcuna licenza da parte Montecatini nè direttamente nè indirettamente.

Poichè un impianto fatto per produrre polipropilene può essere in gran parte utilizzato per produrre politene, è probabile che la Hercules Powder consideri che l'investimento di capitale nell'impianto per produrre il polipropilene non risulterà del tutto perduto nel caso che dovesse interromperne la produzione, perchè la Hercules Powder potrà produrre politene con lo stesso impianto con la licenza Ziegler e quella Du Pont.

A mio parere un gruppo dell'importanza della Hercules Powder in presenza di una situazione brevettuale piuttosto complessa, avrebbe dovuto tenere, come altri hanno tenuto, un atteggiamento un po' più riservato . Forse il comportamento della Hercules Powder è dettato da scopi propagandistici, od altri che ignoro.

Le sarei grato se Lei volesse dirmi come interpreta la cosa.

Molti cordiali saluti anche da parte di mia moglie a Lei ed alla Sua Signora che speriamo di rivedere presto in Italia.

(G.Natta)

23 Settembre 1957

Egr. Ing. Angelo Servi
8240 East Suva Street
DOWNEY - California

Rif. N. 1597/rl

Egregio Ingegnere,

La ringrazio della Sua gentile lettera del 18 c.m. e, sebbene non ricordi più la fisonomia ed il nome degli studenti di oltre 30 anni fa, ciononondimeno mi ha fatto molto piacere ricordare quei tempi lontani.

Ho avuto diversi inviti sia dall'ambiente universitario che industriale, di venire in California a fare alcune conferenze, ma non mi è mai riuscito di trovare il tempo. Nel caso che dovessi venire in uno dei prossimi anni La informerò.

Molti cordiali saluti a Lei e Signora.

Giulio Natta

WHITEHALL 3-1600

SIMPSON COAL & CHEMICAL CORPORATION
120 WALL STREET
NEW YORK 5, N. Y.

154

July 31, 1957

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

The writer deeply appreciates your prompt response of July 26 and wishes to advise you that we have written to Dr. Wiberg and will keep you apprised of our activities.

We have followed your progress in the polymer field with the greatest interest and certainly hope that your efforts are visited with outstanding success.

Best personal regards.

Sincerely yours,

SIMPSON COAL & CHEMICAL CORPORATION

S. Horne

S. Horne
Director of Research

SH:ncj

WHITEHALL 3-1600

SIMPSON COAL & CHEMICAL CORPORATION _ 31st floor

120 WALL STREET

NEW YORK 5, N. Y.

Chemical

July 12, 1957

Dr. Giulio Natta
University of Milano
Milan, Italy

Dear Dr. Natta:

It is most unfortunate that I was unable to meet you even briefly when you were last in New York. Over the years, Dr. Molinari had spoken so frequently of you that I felt personally acquainted with your good self.

I do not plan, however, to intrude unnecessarily at this point. I would be deeply appreciative if you could recommend an organization or a man on the Continent with a strong background in boro-hydrides. As you unquestionably know, there is tremendous interest in this field for fuel purposes and we would like to support an additional approach to the production of boro-hydrides in the U. S.

Would you be kind enough to assist us in this area.

Best personal regards.

Yours sincerely,

SIMPSON COAL & CHEMICAL CORPORATION

S Horne

S. Horne
Director of Research

SH:ncj

inflese

Mr. Arthur F. SMITH Esq.
President

311 Alexander Street

ROCHESTER, 4 - NEW YORK

Dear Mr. Smith,

rispondo con ritardo alla Vostra lettera del luglio, giunta durante un periodo che ero all'estero, perchè appena ora, dopo le vacanze prolungate a causa di malattia, ho potuto riprendere la mia attività.

Per quanto riguarda i campioni di polipropilene isotattici, è necessario che Voi rivolgiate alla Spett. Montecatini, Società per l'Industria Chimica e Mineraria, via Turati, 18 - Milano.

Apprendo che alla fine di quest'anno sarete a Milano e in tal caso se io non sarò assente durante il periodo della Vostra visita, eventualmente potrò incontrarLa.

(Saluti)

July 22, 1957

Professor G. Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci
32 Milano
Italy

Dear Professor Natta:

I am in receipt of your letter of July 15th addressed to Dr. Otto Dorrer at Farbwerke Hoechst AG, Frankfurt, (M)-Hoechst, Germany.

Through a slight misunderstanding it seems that Dr. Dorrer was under the impression that we wished to use the polypropylene for a distillation, which of course is not our intention. We intended to use it for evaluation on some extruded sections where high tensile strength is a prerequisite and we were referring primarily to your isotactic polymer rather than the mixed polymer of a normal polypropylene polymerization. As you undoubtedly know, none of the isotactic polypropylene is available in this country as yet, and it was my desire to obtain some as soon as possible, preferably in the amount of one or two hundred pounds in order to run these evaluation tests prior to normal commercial production. If you could be instrumental in effecting this we should be very grateful to you.

It is my understanding that we have another mutual friend beside Dr. Dorrer, that being Dr. D'Alelio now professor of Chemistry at the University of Notre Dame.

If the writer is in Milan later this year he will make an attempt to visit with you and discuss some of the fine work that you have done in this field over the past several years.

Looking forward to hearing from you in the future,
I remain,

Sincerely yours,

ARTHUR F. SMITH COMPANY

Arthur F. Smith
President

AFS:ds

CC: To Dr. Otto Dorrer

26 Luglio 1957

Professor SZWARC
Presso Hotel Touring
Milano - Via Tarchetti 2

Dear Prof. Szwarc,

I hope you made a good trip to Italy! Please, on Monday morning telephone to my Institute so that we may arrange an appointement with you. Unfortunately, in this day I shall be engaged with the Doctorate degrees examinations at our Polytechnic, but my assistents will be very glad to meet you, to show you our Institute and to have useful discussion with you. I confirm you, that your seminary will be held on July 30, Tuesday, at 5 p.m.

Looking forward to seeing you in Milan, I remain,

Sincerely yours,

Giulio Natta

June 24, 1957

Prof. Michael Szwarc
State University of New York
College of Forestry
SYRACUSE 10 - New York - U.S.A.

Dear Professor Szwarc,

I received your kind letter of May 23, 195' only on June 17; probably it had not been sent by air mail.

I confirm you that we will be very glad to hear your lecture on "Living Polymers". Your lecture will be held, if you agree, at Milan Polytechnic on Tuesday , July 30, at 5 p.m.

Unfortunately owing to the University holidays, there will be an auditory limited, but for compensation, it will include only people very interested in hearing your lecture.

Looking forward to seeing you in Milan and in Paris, I remain,

Very sincerely yours,

Giulio Natta

Mai 16, 1957

Rif.No. 1045/rl

Prof.Michael SZWARC
State University of New York
College of Forestry

SYRACUSE 10 - New York - US

Dear Professor Szwarc,

following up my letter of Mai 10, I should grateful if you may let me know a possible date for your visit to Milan, before the end of July, and if you may give a lecture at my Institute, on the argument you prefer. (for instance on living-polymers) -

Looking forward to seeing you at Paris Meeting, and waiting for your kind reply I send you my best regards.

Very sincerely yours,

Giulio Natta

Mai 10, 1957

Prof. Michael Szwarc
State University of New York
College of Forestry
SYRACUSE 10 - New York - U.S.A.

Ref. No. 968/rl

Dear Professor Szwarc,

I received your kind letter of April 30, and I confirm you that I shall be very pleased to have the opportunity of meeting you during your visit in Europe, and I am very sorry that you cannot visit us in Milan before the Paris Meeting.

I shall attend in Paris not only the International Symposium but also the Symposium on Plastics. Just after my return to Milan, you may visit our Institute, but I wish to inform you that this time will be not too convenient. In fact at the end of July most people begin their summer vacations, and at the beginning of August our Laboratory is close.

Looking forward to seeing you in Paris, I send you my best wishes and personal regards.

Giulio Natta

July 26, 1957

MR. S. HORNE, Director of Research
SIMPSON COAL & CHEMICAL CORPORATION
120 Wall Street
N E W Y O R K 5 - N.Y. - U.S.A.

Dear Mr. Horne,

I received your kind letter of July 12, after my coming back from the 16th International Congres of Pure and Applied Chemistry held in Paris.

I am very sorry, but I do not know people experienced in the field of boro-hydrides. However, during the Paris Congress, lectures have been presented on boro-compounds, among them that by Prof. Egon Wiberg, Director of the Institute of Inorganic Chemistry, Munich University (Gemmany). I believe that Prof. Wiberg will give you the informations you need.

With best personal regards.

Sincerely yours,

G. Natta

October 15, 1957

Mr. Arthur F. SMITH, President
Arthur F. Smith Company
311 Alexander Street
ROCHESTER 4 - N.Y. - U.S.A.

Ref. No. 1395

Dear Mr. Smith,

I delayed my answering your letter of July 22, which arrived at my Laboratory when I was abroad, because only now, after the prolonged holidays I had to make owing to an illness, I could resume my activity.

As to the isotactic polypropylene samples, you ~~must~~ should apply to the Montecatini, Società per l'Industria Chimica e Mineraria, Via Turati, 18 - Milano.

With kindest regards.

Sincerely yours,

(Prof. G. Natta)

STATE UNIVERSITY OF IOWA

Department of CHEMISTRY : *Iowa City, Iowa*

R 1905

Prof. G. Natta

Istituto di Chimica Industriale
del
Politecnico
di
Milano

Chiarissimo Professore,

Sto ora compilando un lavoro riassuntivo su "The Polymerization of Alpha-Olefins by Complex Metal Catalysts" che verrà pubblicato la primavera prossima in Chemical Reviews.

Da alcuni lavori suoi e di suoi collaboratori, ho visto che molti estesi ed importanti articoli suoi sono apparsi sugli "Atti dell' Acca-demia dei Lincei" ed io ritengo di doverli includere nel mio lavoro. Purtroppo la biblioteca dell' Universita di Iowa non possiede quella rivista, e perciò le saro infinitamente grato se mi potrà inviare tutti gli estratti dei lavori che furono la pubblicati.

Recentemente ho compiuto, col Dr. Marvel, alcune ricerche sulla polimerizzazione di varie diolefine con i catalizzatori di Zieglier, ricerche che verranno pubblicate la primavera prossima sul J. Am. Chem. Soc. Le mandero gli estratti di questo lavoro e di quello riassuntivo, perchè forse potranno interessarle.

Nuovamente la ringrazio e le porgo distinti saluti.

J. K. Stille

Dr. J. K. Stille

JKS/kr

Artículo

"Scientific American"

1957

1

[illegible] 10/1.11

pg 3 [illegible] invece di

hundreds of thousands

thousands or

tens of thousands

pg 25 [illegible] 17

invece di [illegible]

invece

pg. 27 [illegible] 9

invece di 200 hours

invece 20 hours

45

47

STOP. ~~DEA~~ Depending new interpretation
ionic polymerization Pag 16
LINE 2 instead attaching
correct reacting ~~to~~ with
LINE 3 instead monomer as a
whole correct resulting chain
segment LINE 16 instead of
cationic correct anionic
LINE 17 to 19 correct
because the end of the growing
chain is negatively charged
(anion)

Leon Swirsky Editor Scientific American
415 Madison Ave New York

To edited copy

Some Corrections V Article Natta

~~[illegible]~~ highs polymers ~~[illegible]~~ are accessory

page 3 sig. 10 insert di hundreds
with tens

" 9 " 9 insert di amino group at one end
insert amino group and a side group at one end

" 9 " 11 insert di symmetrical

" 14 " 2 insert elicoidal step
insert PERCENT OZEN

" 16 " 2 insert di attaching
insert reacting with

" 16 sig 3 monomer as a whole
insert resulting chain segments

" 16 " 16 insert di catalyst
insert anionic

" 16 " 19 ~~the~~ insert di ~~the~~ catalyst
ions are attracted to the positively charged ends of monomers
insert end of the growing chain is negatively charged (anion)

pg. 17 ln. 2 insert

di (anions) are attached at

insert resort with

p. 47 ln. 6 insert di anionic

insert cationic

17 ln 21 the ~~structure~~ steric

structure of the

catalytic complexes

with coordinate the

~~[illegible]~~ carbon atoms

of the chain end

insert d

insert Ziegl

are not dear

insert

18 ln 8 insert di in Poland Blount

insert in ~~[illegible]~~ the States M.

19 ln 14 insert a Ablo

insert Politecnico of Milan

21 " " insert di stretchability

insert elasticity

23 9 to 11 insert

and a organometallic

compound of a

strongly electropositive

metal with a small

cationic radius

linked by an ~~[illegible]~~ aluminium or lith

Dott. Ing. GIOVANNI ARESI
~~Viale Boezio 12 - Tel. 981.644~~
MILANO
Via Ariosto n. 2

Gentile Amico

Milano, 12 agosto 1957

Egregio Professore,

Come d'accordo ho provveduto a far scrivere subito a macchina e spedire per via aerea la lettera al Sig. Svirsky.

Le unisco una copia della lettera stessa unitamente al di Lei manoscritto.

Lieto di aver potuto almeno una volta esserLe utile, Le confermo il mio vivo compiacimento per averLa incontrata a Champoluc e Le rinnovo il mio augurio di un buon riposante soggiorno.

La prego di ricordarmi alle Signore Beati ed alla Signora Rosita e di gradire i miei più cordiali saluti.

(Giovanni Aresi)

Egr. Sig.
Prof. Dr. Ing. GIULIO NATTA
CHAMPOLUC (Aosta)

All. 2

SCIENTIFIC AMERICAN 415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

Established 1845

August 5, 1957

Professor Giulio Natta
c/o Villa Beati - Champoluc
(Valle d'Aosta)
Italy

Dear Professor Natta:

We have just received your letter of August 2nd and are sending you another copy of the edited article to your new address. Perhaps the original one will have been forwarded to you. In any case, please cable your corrections collect, as we suggested.

Sincerely yours,

Leon Svirsky

Leon Svirsky
Managing Editor

LS/kg
enclosure

American Cyanamid

27 Settembre 1957

Egr.Sig.Ing. B.ORSONI
Direttore Settore Progetti e Studi
S e d e

N° 1635/gg

Egregio Ingegnere,

Con riferimento alla telefonata di oggi relativa all'osservazione di Toulmin all'articolo apparso su Scientific American - Settembre 1957 - La informo che nel manoscritto da me inviato la frase relativa a Ziegler era la seguente :

" The most important developments of anionic processes took place only recently.
Ziegler (October 1953) and Du Pont Co. (August 1954) patented p cal processes for the polymerization of ethylene (we attribute an anionic nature to these processes) which make it possible to obta polymers consisting of highly linear ethylene molecules, operatin at low temperature (30-60°C) and pressure, while conventional pol thylene, which consists of much more highly branched molecules, i commercially produced under a pressure of above 1000 atm. and at higher temperatures.
Most of the catalysts which polymerize ethylene, do not polyme higher olefines, but Natta and co-workers in the first months of 1954 succeeded in polymerising other vinyl monomers such as alipl tic alpha-olefines, styrene, etc., using catalysts of the anioni type, thus obtaining polymers having exceptional properties.
The polymerization process requires a heterogeneous catalyst co sisting of a complex, in which a transition metal, a highly elec positive light metal and a metal-alkyl bond of a ionic nature ar present. "

Tale parte è stata notevolmente modificata nella pubblic zione su Scientific American.

Ho ricevuto le bozze di stampa con ritardo e precisamen il 10 agosto a Champeluc insieme ad una lettera di accompagnamen nella quale era detto che se non ricevevano le bozze corrette e il 10 agosto , ossia il giorno nel quale le ho ricevute, l'arti sarebbe stato pubblicato così come era.

./.

27 Settembre 1957

Egr/Sig.Ing. B.Oreani
Direttore SEPS
S e d e

2° foglio

In un telegramma di 250 parole che ho inviato nella stessa giornata ho apportato alcune correzioni relative a grossi errori di carattere chimico ma mi è sfuggita la modifica da loro fatta alla frase relativa a quanto si riferisce al processo di Ziegler.

Nel nostro testo era detto che il politene Ziegler è altamente lineare il che è vero se lo si confronta con il polietilene ad alta pressione mentre nell'articolo su Scientific American è detto che il politene è "unbranched", mentre in realtà il classico politene Ziegler è un poco ramificato.

Per quanto riguarda la data dei primi mesi del 1954 che è stata modificata in "early 1954" Toulmin dovrebbe sapere che tale data è già stata pubblicata oltre due anni fa e quindi non rappresenta alcuna novità.

Cordiali saluti.

(Prof. G.Natta)

Mr. LEON SVIRSKY
Managing Editor of
Scientific American
415, Madison Avenue
NEW YORK 17, N.Y.

Milan, 10th August, 1957

Dear Mr. Svirsky,

I have received only yesterday your letter of August 2, with the copy of the edited article on the making of synthetic high polymers, and I confirm you my cable of August, 10:

" Referring your letter August, 2 following corrections are necessary:

Page 9, line 9
instead of : amino group
correct : amino group and a side group

Page 9, line 11
instead of : symmetrical
correct : elicoidal

Page 14, line 2
instead of : perlon
correct : orlon

According to the new interpretations of the ionic polymerisation correct:

Page 16, line 2
instead of : attaching
correct : reacting with

Page 16, line 3
instead of : monomer as a whole
correct : resulting chain segment

Page 16, line 16
instead of : cationic
correct : anionic

Page 16, line 17 to 19
(instead of : because the catalytic ions are attached to the positively charged (cationic) ends of monomers)

correct : because the end of the growing chain is negatively charged (anionic)

./.

Page 17, line 2
instead of : (anions) are attached
correct : react with

Page 17, line 6
instead of : anionic
correct : cationic

Page 17, line 11
instead of : reasons which are not yet entirely clear
correct : the sterical structure of the catalytic complexes which coordinate the carbon atom of the chain end.

Page 18, line 8
instead of : in Poland BLANK Szwarc
correct : in the States M. Szwarc

Page 19, line 14
instead of : Milan
correct : the "Politecnico" of Milan.

Page 21, line 11
instead of : streachability
correct : elasticity

Page 23, line 9 to 11
(instead of : a strongly electropositive metal (e.g. sodium) and a "organometallic compound (e.g. aluminium linked by an)
correct : and a "organometallic" compound of a strongly electropositive metal having a small cationic radius (e.g. aluminium or lithium linked by an)

Page 27, line 9
instead of : 200 hours
correct : 20 hours.

Letter follows NATTA."

I hope you will receive just in time my cable and that all explainations will be clear for you. Accordingly your suggestion I inform you that the cost of the cable was 25.000 Italian lire (corresponding to 40 U.S. dollars).

I thank you very much for your simplification of the article.

With the best regards

Sincerely yours

(Giulio Natta)

pe.

August 2, 1957

Professor G. Natta
Istituto di Chimica Industriale
Milano, Italy

Dear Professor Natta:

Enclosed is the edited copy of your very exciting article on the making of synthetic high polymers. It is indeed a great contribution to our special issue.

For our broad audience of more than 170,000 readers it is necessary to avoid being too technical, as comparatively few of them are equipped with an understanding of chemistry. We have simplified the account, avoiding technical language, and the article should now be readily understandable to our readers. We have omitted some of the discussion of the properties of polymers because they are covered in the article by Tobolsky which follows yours. Very possibly errors have crept into the edited version, and we shall appreciate your correcting them. Please let us have your corrections at the earliest possible moment. We will go to press August 9th. If it is impossible to return the corrected copy by air mail by that time, please cable your corrections. You may send the cable collect, or, if you prefer, we shall pay you for it later.

Thank you very much for this excellent article.

Sincerely yours,

Leon Svirsky
Managing Editor

SCIENTIFIC AMERICAN 415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

Established 1845

August 2, 1957

Professor G. Natta
Istituto di Chimica Industriale
Milano, Italy

Dear Professor Natta:

Enclosed is the edited copy of your very exciting article on the making of synthetic high polymers. It is indeed a great contribution to our special issue.

For our broad audience of more than 170,000 readers it is necessary to avoid being too technical, as comparatively few of them are equipped with an understanding of chemistry. We have simplified the account, avoiding technical language, and the article should now be readily understandable to our readers. We have omitted some of the discussion of the properties of polymers because they are covered in the article by Tobolsky which follows yours. Very possibly errors have crept into the edited version, and we shall appreciate your correcting them. Please let us have your corrections at the earliest possible moment. We will go to press August 9th. If it is impossible to return the corrected copy by air mail by that time, please cable your corrections. You may send the cable collect, or, if you prefer, we shall pay you for it later.

Thank you very much for this excellent article.

Sincerely yours,

Leon Svirsky

Leon Svirsky
Managing Editor

SEPTEMBER 1957

NATTA

1

A chemist setting out to build a giant molecule is in the same position as an architect designing a building. He has a number of building blocks of certain shapes and sizes, and his task is to put them together in a structure to serve a particular purpose. The chemist works under the awkward handicap that his building blocks are invisible, because they are submicroscopically small, but on the other hand he enjoys the happy advantage that nature has provided models to guide him. By studying the giant molecules made by living organisms, chemists have learned to construct molecules like them. What makes high-polymer chemistry still more exciting just now is that almost overnight, within the last few years, there have

come discoveries of new ways to put the building blocks together--discoveries which promise a great harvest of new materials that have never existed on the earth.

We can hardly begin to conceive how profoundly this new chemistry will affect man's life. Giant molecules occuy a very large place in our material economy. Tens of millions of men and women, and immense areas of the earth's surface, are devoted to production of natural high-polymers such as cellulose, rubber and wool. Now it appears that synthetic materials of equivalent or perhaps even better properties can be made rapidly and economically from coal or petroleum. Among other things, this holds forth the

prospect that we shall be able to turn much of the land now ~~given to~~ used for the production of fiber to the production of food for the world's growing population.

In this article I shall explain how the synthetic giant molecules are made. The molecules with which we are here concerned are the chainlike structures made of organic building blocks. They are formed by linking together hundreds of thousands of these units, called monomers. Let us consider the ~~building blocks~~ monomers first.

A monomer whose structure consists simply of a backbone of carbon atoms with hydrogen atoms ranged along the sides lends itself to the formation of a neat, straight chain of links hooked end to end, though it may also grow bran-

ches [see diagrams on page 00]. Chain molecules of this type readily align themselves alongside one another and form fibers. The structure becomes more complex when, in place of hydrogen atoms, the monomer has side groups--for example, the methyl group (CH_3). A chain formed of such monomers may have one of three arrangements [see diagrams on page 00]. 1. The side groups may occur at random on either side of the chain; this type of polymer is called "atactic," meaning lacking in order (tactic comes from the Greek word for order). 2. The groups may all lie on one side of the chain; this arrangement is called "isotactic." 3. They may alternate from one side to the other in regular order; this type is

called "syndiotactic."

These elements of structure lead to a great variety of formations. Isotactic chains easily line up side by side and form crystalline structures, whereas atactic ~~cases do not. Chains~~ chains tend to make an amorphous material, ~~may be cross-linked together, or their symmetry may permit them to form regular, crystalline structures. Sections,~~ ~~or~~ blocks of different polymers may be joined end to end, or one polymer may be grafted onto another as a branch on the main chain [see diagrams on page 00]. In each case the structure confers certain mechanical properties on the polymer, as Arthur Tobolsky explains in the following article / page 000 /. For example, crystallinity gives a polymer ~~rigidity,~~ strength and a high melting point, side-by-side alignment of the chains in bundles produces

a fiber, and so on.

How do monomers grow into a chain; that is, how do they link themselves together? There are two ways, called condensation and addition. In the condensation process, monomers or groups of monomers unite spontaneously and at random by chemically active hooks at their ends--like skaters or groups of skaters linking arms. In the addition process the polymer builds up, one monomer at a time, by a chain reaction, very much as if one person grasped a live wire and was fixed to it, a second seized the first and was himself held fast by the electricity, a third person similarly was added to the chain by seizing the second, and so on.

Let us follow through the condensation

process. Suppose we dump a mixture of monomers into solution and wait for developments. If the monomers are equipped with chemically active hooks, we can expect them to link up into polymers. But the product we get will be strictly accidental. Like a tile floor in which tiles of different colors are put together at random, the polymer will have no predictable pattern, because the monomers, having no preference for any particular configuration, will have linked up by chance.

If, however, we use monomers which join only in one way, we can predict what kind of chain they will form. We take, let us say, two monomers: one has a basic group, the amino group (NH_2), at each end, the other has an acid

group, carboxyl (COOH), at each end. The two monomers will hook up end to end, the basic end of one linking up with the acid end of the other and splitting off a molecule of water in the chemical reaction [see diagrams on page 00]. By such condensations the monomers will combine into a long, regular ~~giant~~ molecule. This is, in fact, the way nylon is made, and the same method is used to synthesize the synthetic fibers Dacron and Perlon (the latter being a chain of amino acids). The monomers may have a basic group at one end and an acid at the other, or basic groups at both ends, or acids at both ends; in all cases it is the inherent chemical affinity between the end groups that causes the monomers to grow into a linear polymer.

This building plan, upon which Wallace Carothers of du Pont based his synthesis of nylon, is derived from the design of the natural fibers of wool and silk. They too are made by condensation of simple, regular monomers, all of the same configuration (levorotatory). Their monomers are amino acids, with an amino group at one end and a carboxyl at the other; they link up into long, symmetrical chains; the chains in turn are spun into strong fibers. All these lessons from the natural models have been followed by the creators of synthetic fibers. We do not know very much about how living organisms carry out their building and spinning processes, but the chemist has his own methods.

The construction of polymers by the condensation method is rather slow and tends to come to an almost complete stop before the molecules have attained a truly giant size, because as the chains grow they become less mobile and therefore less likely to encounter free building blocks in the solution. Fortunately products such as nylon have acquired their valuable prpperties when they reach a molecular weight of 10,000 to 20,000. But to build molecules with molecular weights in the hundreds of thousands or millions by condensation is very difficult.

The addition method, on the other hand, can produce giant molecules of almost unlimited size. Starting from an active center (an activated monomer which serves

as a kind of "seed"), it adds one monomer at a time and rapidly builds a chain which in theory can go on growing indefinitely as long as the supply of building blocks holds out. The process is comparatively simple but difficult to control. As I mentioned, the monomers here employed do not start with built-in chemical hooks, as condensing monomers do: instead the hooks have to be generated. Each monomer, upon joining the chain, thereby acquires a hook to seize another. There are various ways of generating such a hook, or bond; each requires a catalyst.

One method employs free radicals as the catalyst. (Actually they differ from true catalysts in that they are consum in the polymerization react) A free radical is a compound with an unpaired electron -- usually a fragment of a larger molecule

which has been split by heating. The unpaired electron makes the radical very reactive: it readily hooks itself to another molecule by its odd electron. Suppose it encounters a monomer. In an organic monomer the carbon and hydrogen atoms are held together by covalent bonds, meaning that the bond consists of a pair of electrons shared between a pair of atoms. The conventional symbol C-C represents two carbon atoms linked by an electron pair. Frequently the carbon atoms are joined by a double bond (C=C) -- that is, two pairs of electrons. Now when a free radical encounters a double bond, it may pair with one of the electrons in the extra bond, leaving the other member of the pair without a partner. Thus

the monomer itself becomes a radical: it now has an unpaired electron at one end [see diagrams on page 000]. It promptly reacts in the same way with a second monomer; the newly released electron at the end of the second seizes a third monomer; the third grasps a fourth, and so the chain gros. It can grow to giant size and might increase without limit but for the fact that the reactive end of the chain is not restricted to reacting with monomers: it may combine with other molecules in the solution, or two chains may join head-on (i.e., at their free-radical ends), thus closing the growing points of both.

Among the polymers that can be made by the free-radical method are poly-

ethylene [See article on page 00], polystyrene, polyvinyl chloride and the fiber Perlon. Some of these giant molecules are perfectly linear, like a long snake; some are branched, like a tree. Branches develop when free radicals start side-growths at points along the chain. This is particularly likely to happen when a polymer is produced at high temperature. For example, polyethylene made by the high-pressure process (at pressures above 1,000 atmospheres and temperatures above 212 degrees Fahrenheit) is highly branched: it has several very long branches and hundreds of small ones. The branches interfere with packing of the chains in crystalline (i.e., regular arrangements, and as a result polyethylene synthesized by this method

has a comparatively low crystallinity -- 3 30 to 60 per cent. With low crystallinity ~~goes low rigidity, or~~ go low strength and a low melting point.

Free radicals are one type of catalyst that can grow polymers by addition; another method involves the use of ions (cations or anions) as catalysts. The latter is a very recent development, and to my mind it portends a revolution in the synthesis of giant molecules, opening up large new horizons.

Under certain circumstances (i.e., in a medium producing electrical polarization) the electrons of a double bond between the carbon atoms in a monomer can be so displaced that one of the carbon atoms in effect has a positive charge while the other is negative. The carbon atoms are "polarized," so to

speak. If we now neutralize the positively charged carbon atom by ~~attaching~~ a negative ion to it, the ~~monomer as a whole~~ becomes negatively charged, because of its unneutralized negative carbon atom at the other end. It will then act as a negative ion and attach itself to the positively charged end of a second "polarized" monomer [see diagrams on page 000]. This again leaves a negative charge at the growing end of the molecule. Thus, by a chain reaction like the one catalyzed by free radicals, the molecule grows to a high polymer. ~~This~~ version of the ionic process is called ~~cationic~~ catalysis, because ~~the catalytic ions are attached~~ to the ~~positively~~ charged (~~cationic~~) ends of the monomers. The process also

works in reverse: if positive ions (anions) are attached at the negatively charged end of a polarized monomer, it will grow from the positively charged end [see page 000]. In the case we call the method anionic catalysis.

The cationic method has produced some very interesting high polymers: for instance, butyl rubber, the synthetic rubber used for tire inner tubes. But for reasons which are not yet entirely clear, the anionic catalysts, a more recent development, have proved far more powerful. They yield huge, made-to-order molecules with extraordinary properties.

Experiments with anionic catalysts had been carried on for a number of years. Before World War II Russian

chemists, by a process using sodium as the catalyst, had produced a synthetic rubber from butadiene, but the rubber was of rather poor quality. In the U. S. the polymer chemist Maurice Morton had obtained very large polymers of butadiene and styrene with an anionic process. And in Poland BLANK Szwarc had generated tremendous chains of polystyrene which he called "living molecules," because even after they had stopped growing, having used up the available styrene, they would start growing again if more styrene was supplied later.

Please give his first name

Only in the last four years, however, have the great possibilities of anionic catalysis begun to take shape. In 1953 Karl Ziegler in Germany, and less than

a year later the Dupont Company in the U. S., patented new anionic processes for making polyethylene. These processes made it possible to synthesize polyethylene at atmospheric pressure and temperatures as low as 90 degrees F., instead of the very high pressures and temperatures previously required. For the first time the molecule could be polymerized in a regular, unbranched form, producing a strong, crystalline material with high resistance to heat.

Early in 1954 our group at the Institute of Industrial Chemistry in Milan, using certain special catalysts, succeeded in polymerizing more complex monomers of the vinyl family (of which ethylene is a member). We were able to generate chains of very great length, running to

molecular weights in the millions (up to 10 million in one case), and to produce at will either isotactic or syndiotactic or atactic forms of the chains. In other words, we found that it was possible, by a proper choice of catalysts, to control the growth of chains according to predetermined specifications.

Among the monomers we have polymerized in this way are styrene and propylene, both hydrocarbons derived from petroleum. The polypropylenes we have made illustrate the versatility of the method. We can synthesize them in three forms: isotactic, atactic ~~and~~ OR "block isotactic," that is, a chain consisting of blocks, one having all the side groups aligned on one side, the other on the opposite side [see diagrams on page

000 7. The isotactic polypropylene is a highly crystalline substance with a high melting point (346 degrees F.); it makes very strong fibers, like those of natural silk or nylon. The atactic product, in contrast, is amorphous and has the elastic properties of rubber. The block versions of polypropylene have the intermediate characteristics of a plastic, with more or less rigidity or stretchability, depending on the length of the isotactic blocks in the chain.

The possibility of obtaining such a wide array of different products from the same raw material naturally aroused great interest. Furthermore, the new controlled processes created pro-perties not attainable before: for example, polystyrene, which had been known

only as a glassy material with a low softening point (under 200 degrees F.), now could be prepared as a strong, crystalline plastic with a melting point near 460 degrees. The new-found power of the anionic catalysts stimulated great activity in polymer research, both in Europe and in the U. S. New polymers were made from various monomers. In our own laboratory we synthesized all of the regular polymers, and some amorphous ones, that can be made from butadiene; some of the products are rubberlike, others not. At about the same time the B. F. Goodrich Chemical Company and the Firestone Tire and Rubber Company both announced that they had synthesized, from isoprene, a rubber identical to natural rubber--

a problem on which chemists throughout the world had worked in vain for more than half a century.

What are the magical new catalysts that have shown such remarkable powers? Most of them are complexes consisting of several substances: a metal (e.g., titanium) with an unfilled electron shell, a strongly electropositive metal (e.g., sodium) and an organometallic compound (e.g., aluminum linked by an ionic bond to an alkyl group). Groups of ions of these substances serve as the active centers from which giant molecules grow. The character of the growing molecule is controlled by the nature of the generating complex and by temperature. When the catalytic complex is firmly fixed on solid crystals with a

layer structure and the reaction proceeds at low temperature, it generates a perfectly regular, isotactic ~~chain~~ molecule of tremendous length. When the generating complex is less firmly rooted ~~on~~ in the crystals, or when the process is carried out at high temperatures, the chain changes its pattern of growth from time to time and we get a molecule of the block type. When the catalysts are embedded in an amorphous support, we get atactic, or irregular, molecules.

The giant molecules themselves do not suggest life, but the catalytic complexes that generate them do. We should speak not of "living molecules," as Szwarc did, but of "living complexes." A molecule growing from the catalytic complex on

the surface of a crystal is like a hair growing from its root: that is, the monomers are added at the root. The long molecule is very thin and very delicate--far more easily torn loose than an actual hair. Even the eddies produced by stirring the liquid will tear the molecule from its generating complex, as a windstorm can tear a slender plant stem from its roots. But the generating complex, like a root, does not die; it retains the ability to send forth new shoots. It is, however, subject to a number of mortal dangers: certain poisons will kill its ability to generate molecules; freezing or lack of nourishment will render it inactive, and so on.

No one will be misled into supposing

that these complexes bear any basic resemblance to a living organism. Nevertheless the analogies between the way they build giant molecules and the way an organism does are striking, and very hopeful for the future of polymer chemistry. A living creature builds its high polymers, precisely tailored according to a set design, by means of catalysts (enzymes). We are now in a position to hope that, with a man-made catalysts, we shall be able to produce predesigned giant molecules in the same controlled and orderly way.

In some respects we can improve on nature. As I have mentioned, we shall probably be able to create many new molecules which do not exist in living

matter. They can be made from simple, inexpensive materials. And we can manufacture giant molecules more rapidly than an organism usually does. For example, a single active center in a catalyst can generate more than 1,000 polypropylene molecules of 200,000 molecular weight ~~at the rate of more than 10,000 molecules~~ in 20 hours -- polymerizing monomers at the rate of 250,000 per hour!

Although it is less than four years since the new methods for controlled synthesis of macromolecules were discovered, already many new synthetic substances--potential fibers, rubbers and plastics--have been made. Thousands of chemists are now devoting themselves to this new field of research, in industrial and university laboratories. Unlimited possibilities have been open-

ed to their imagination.

SCIENTIFIC AMERICAN 415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

Established 1845

August 2, 1957

Professor G. Natta
Istituto di Chimica Industriale
Milano, Italy

Dear Professor Natta:

Enclosed is the edited copy of your very exciting article on the making of synthetic high polymers. It is indeed a great contribution to our special issue.

For our broad audience of more than 170,000 readers it is necessary to avoid being too technical, as comparatively few of them are equipped with an understanding of chemistry. We have simplified the account, avoiding technical language, and the article should now be readily understandable to our readers. We have omitted some of the discussion of the properties of polymers because they are covered in the article by Tobolsky which follows yours. Very possibly errors have crept into the edited version, and we shall appreciate your correcting them. Please let us have your corrections at the earliest possible moment. We will go to press August 9th. If it is impossible to return the corrected copy by air mail by that time, please cable your corrections. You may send the cable collect, or, if you prefer, we shall pay you for it later.

Thank you very much for this excellent article.

Sincerely yours,

Leon Svirsky

Leon Svirsky
Managing Editor

SEPTEMBER 1957

Professor Natta

NATTA

1

A chemist setting out to build a giant molecule is in the same position as an architect designing a building. He has a number of building blocks of certain shapes and sizes, and his task is to put them together in a structure to serve a particular purpose. The chemist works under the awkward handicap that his building blocks are invisible, because they are submicroscopically small, but on the other hand he enjoys the happy advantage that nature has provided models to guide him. By studying the giant molecules made by living organisms, chemists have learned to construct molecules like them. What makes high-polymer chemistry still more exciting just now is that almost overnight, within the last few years, there have

come discoveries of new ways to put the building blocks together--discoveries which promise a great harvest of new materials that have never existed on the earth.

We can hardly begin to conceive how profoundly this new chemistry will affect man's life. Giant molecules occupy a very large place in our material economy. Tens of millions of men and women, and immense areas of the earth's surface, are devoted to production of natural high-polymers, such as cellulose, rubber and wool. Now it appears that synthetic materials of equivalent or perhaps even better properties can be made rapidly and economically from coal or petroleum. Among other things, this holds forth the

prospect that we shall be able to turn much of the land now ~~given to~~ used for the production of fiber to the production of food for the world's growing population.

In this article I shall explain how the synthetic giant molecules are made. The molecules with which we are here concerned are the chainlike structures made of organic building blocks. They are formed by linking together hundreds of thousands of these units, called monomers. Let us consider the ~~building blocks~~ monomers first.

A monomer whose structure consists simply of a backbone of carbon atoms with hydrogen atoms ranged along the sides lends itself to the formation of a neat, straight chain of links hooked end to end, though it may also grow bran-

chem [see diagrams on page 00]. Chain molecules of this type readily align themselves alongside one another and form fibers. The structure becomes more complex when, in place of hydrogen atoms, the monomer has side groups--for example, the methyl group (CH_3). A chain formed of such monomers may have one of three arrangements [see diagrams on page 00]. 1. The side groups may occur at random on either side of the chain; this type of polymer is called "atactic," meaning lacking in order (tactic comes from the Greek word for order). 2. The groups may all lie on one side of the chain; this arrangement is called "isotactic." 3. They may alternate from one side to the other in regular order; this type is

called "syndiotactic."

These elements of structure lead to a great variety of formations. Isotactic chains easily line up side by side (and form crystalline structures), whereas atactic ~~ones do not. Chains may be cross-linked together, or their symmetry may permit them to form regular, crystalline structures. Sections,~~ chains tend to make an amorphous material. or blocks of different polymers may be joined end to end, or one polymer may be grafted onto another as a branch on the main chain [see diagrams on page 00]. In each case the structure confers certain mechanical properties on the polymer, as Arthur Tobolsky explains in the following article [page 000]. For example, crystallinity gives a polymer ~~rigidity~~ (strength and a high melting point) side-by-side alignment of the chains in bundles produces

a fiber, and so on.

How do monomers grow into a chain; that is, how do they link themselves together? There are two ways, called condensation and addition. In the condensation process, monomers or groups of monomers unite spontaneously and at random by chemically active hooks at their ends--like skaters or groups of skaters linking arms. In the addition process the polymer builds up, one monomer at a time, by a chain reaction, very much as if one person grasped a live wire and was fixed to it, a second seized the first and was himself held fast by the electricity, a third person similarly was added to the chain by seizing the second, and so on.

Let us follow through the condensation

process. Suppose we dump a mixture (of monomers) into solution and wait for developments. If the monomers are equipped with chemically active hooks, we can expect them to link up into polymers. But the product we get will be strictly accidental. Like a tile floor in which tiles of different colors are put together at random, the polymer will have no predictable pattern, because the monomers, having no preference for any particular configuration, will have linked up by chance.

If, however, we use monomers which join only in one way, we can predict what kind of chain they will form. We take, let us say, two monomers: one has a basic group, the amino group (NH_2), at each end, the other has an acid

group, carboxyl (COOH), at each end. The two monomers will hook up end to end, the basic end of one linking up with the acid end of the other and splitting off a molecule of water in the chemical reaction [see diagrams on page 00]. By such condensations the monomers will combine into a long, regular ~~giant~~ molecule. This is, in fact, the way nylon is made, and the same method is used to synthesize the synthetic fibers Dacron and Perlon (the latter being a chain of amino acids). The monomers may have a basic group at one end and an acid at the other, or basic groups at both ends, or acids at both ends; in all cases it is the inherent chemical affinity between the end groups that causes the monomers to grow into a linear polymer.

This building plan, upon which Wallace Carothers of du Pont based his synthesis of nylon, is derived from the design of the natural fibers of wool and silk. They too are made by condensation of simple, regular monomers, all of the same configuration (levorotatory). Their monomers are amino acids, with an amino group at one end and a carboxyl at the other; they link up into long, symmetrical chains; the chains in turn are spun into strong fibers. All these lessons from the natural models have been followed by the creators of synthetic fibers. We do not know very much about how living organisms carry out their building and spinning processes, but the chemist has his own methods.

The construction of polymers by the condensation method is rather slow and tends to come to an almost complete stop before the molecules have attained a truly giant size, because as the chains grow they become less mobile and therefore less likely to encounter free building blocks in the solution. Fortunately products such as nylon have acquired their valuable prpperties when they reach a molecular weight of 10,000 to 20,000. But to build molecules with molecular weights in the hundreds of thousands or millions by condensation is very difficult.

The addition method, on the other hand, can produce giant molecules of almost unlimited size. Starting from an active center (an activated monomer which serves

as a kind of "seed"), it adds one monomer at a time and rapidly builds a chain which in theory can go on growing indefinitely as long as the supply of building blocks holds out. The process is comparatively simple but difficult to control. As I mentioned, the monomers here employed do not start with built-in chemical hooks, as condensing monomers do: instead the hooks have to be generated. Each monomer, upon joining the chain, thereby acquires a hook to seize another. There are various ways of generating such a hook, or bond; each requires a catalyst.

One method employs free radicals as the catalyst. (Actually they differ from true catalysts in that they are consumed in the polymerization reaction.) A free radical is a compound with an unpaired electron -- usually a fragment of a larger molecule

which has been split by heating. The unpaired electron makes the radical very reactive: it readily hooks itself to another molecule by its odd electron. Suppose it encounters a monomer. In an organic monomer the carbon and hydrogen atoms are held together by covalent bonds, meaning that the bond consists of a pair of electrons shared between a pair of atoms. The conventional symbol C-C represents two carbon atoms linked by an electron pair. Frequently the carbon atoms are joined by a double bond (C=C) -- that is, two pairs of electrons. Now when a free radical encounters a double bond, it may pair with one of the electrons in the extra bond, leaving the other member of the pair without a partner. Thus

the monomer itself becomes a radical: it now has an unpaired electron at one end [see diagrams on page 000]. It promptly reacts in the same way with a second monomer; the newly released electron at the end of the second seizes a third monomer; the third grasps a fourth, and so the chain grows. It can grow to giant size and might increase without limit but for the fact that the reactive end of the chain is not restricted to reacting with monomers: it may combine with other molecules in the solution, or two chains may join head-on (i.e., at their free-radical ends), thus closing the growing points of both.

Among the polymers that can be made by the free-radical method are poly-

[See article on page 00]

ethylene, polystyrene, polyvinyl chloride and the fiber Perlon. Some of these giant molecules are perfectly linear, like a long snake; some are branched, like a tree. Branches develop when free radicals start side-growths at points along the chain. This is particularly likely to happen when a polymer is produced at high temperature. For example, polyethylene made by the high-pressure process (at pressures above 1,000 atmospheres and temperatures above 212 degrees Fahrenheit) is highly branched: it has several very long branches and hundreds of small ones. The branches interfere with packing of the chains in crystalline (i.e., regular arrangements, and as a result polyethylene synthesized by this method

has a comparatively low crystallinity -- ~~3~~ e

30 to 60 per cent. With low crystallin-

ity ~~goes low rigidity, or~~ go low strength and a low melting point.

Free radicals are one type of cata-

lyst that can grow polymers by addition;

another method involves the use of

ions as catalysts. The latter is a

very recent development, and to my mind

it portends a revolution in the synthe-

sis of giant molecules, opening up

large new horizons.

Under certain circumstances (i.e., in

a medium producing electrical polariza-

tion) the electrons of a double bond

between the carbon atoms in a monomer

can be so displaced that one of the

carbon atoms in effect has a positive

charge while the other is negative. The

carbon atoms are "polarized," so to

speak. If we now neutralize the positively charged carbon atom by attaching a negative ion to it, the monomer as a whole becomes negatively charged, because of its unneutralized negative carbon atom at the other end. It will then act as a negative ion and attach itself to the positively charged end of a second "polarized" monomer [see diagrams on page 000]. This again leaves a negative charge at the growing end of the molecule. Thus, by a chain reaction like the one catalyzed by free radicals, the molecule grows to a high polymer. This version of the ionic process is called cationic catalysis, because the catalytic ions are attached to the positively charged (cationic) ends of the monomers. The process also

works in reverse: if positive ions (anions) are attached at the negatively charged end of a polarized monomer, it will grow from the positively charged end [see page 000]. In the case we call the method anionic catalysis.

The cationic method has produced some very interesting high polymers: for instance, butyl rubber, the synthetic rubber used for tire inner tubes. But for reasons which are not yet entirely clear, the anionic catalysts, a more recent development, have proved far more powerful. They yield huge, made-to-order molecules with extraordinary properties.

Experiments with anionic catalysts had been carried on for a number of years. Before World War II Russian

chemists, by a process using sodium as the catalyst, had produced a synthetic rubber from butadiene, but the rubber was of rather poor quality. In the U. S. the polymer chemist Maurice Morton had obtained very large polymers of butadiene and styrene with an anionic process. And in Poland BLANK Szwarc had generated tremendous chains of polystyrene which he called "living molecules," because even after they had stopped growing, having used up the available styrene, they would start growing again if more styrene was supplied later.

Please give his first name

Only in the last four years, however, have the great possibilities of anionic catalysis begun to take shape. In 1953 Karl Ziegler in Germany, and less than

a year later the Dupont Company in the U. S., patented new anionic processes for making polyethylene. These processes made it possible to synthesize polyethylene at atmospheric pressure and temperatures as low as 90 degrees F., instead of the very high pressures and temperatures previously required. For the first time the molecule could be polymerized in a regular, unbranched form, producing a strong, crystalline material with high resistance to heat.

Early in 1954 our group at the Institute of Industrial Chemistry in Milan, using certain special catalysts, succeeded in polymerizing more complex monomers of the vinyl family (of which ethylene is a member). We were able to generate chains of very great length, running to

molecular weights in the millions (up to 10 million in one case), and to produce at will either isotactic or syndiotactic or atactic forms of the chains. In other words, we found that it was possible, by a proper choice of catalysts, to control the growth of chains according to predetermined specifications.

Among the monomers we have polymerized in this way are styrene and propylene, both hydrocarbons derived from petroleum. The polypropylenes we have made illustrate the versatility of the method. We can synthesize them in three forms: isotactic, atactic or "block isotactic," that is, a chain consisting of blocks, one having all the side groups aligned on one side, the other on the opposite side [see diagrams on page

000]. The isotactic polypropylene is a highly crystalline substance with a ' high melting point (346 degrees F.); it makes very strong fibers, like those of natural silk or nylon. The atactic product, in contrast, is amorphous and has the elastic properties of rubber. The block versions of polypropylene have the intermediate characteristics of a plastic, with more or less rigidity or stretchability, depending on the length of the isotactic blocks in the chain.

The possibility of obtaining such a wide array of different products from the same raw material naturally aroused great interest. Furthermore, the new controlled processes created new properties not attainable before: for example, polystyrene, which had been known

only as a glassy material with a low softening point (under 200 degrees F.), now could be prepared as a strong, crystalline plastic with a melting point near 460 degrees. The new-found power of the anionic catalysts stimulated great activity in polymer research, both in Europe and in the U. S. New polymers were made from various monomers. In our own laboratory we synthesized all of the regular polymers, and some amorphous ones, that can be made from butadiene; some of the products are rubberlike, others not. At about the same time the B. F. Goodrich Chemical Company and the Firestone Tire and Rubber Company both announced that they had synthesized, from isoprene, a rubber identical to natural rubber--

a problem on which chemists throughout the world had worked in vain for more than half a century.

What are the magical new catalysts that have shown such remarkable powers? Most of them are complexes consisting of several substances: a metal (e.g., titanium) with an unfilled electron shell, a strongly electropositive metal (e.g., sodium) and an "organometallic" compound (e.g., aluminum linked by an ionic bond to an alkyl group). Groups of ions of these substances serve as the active centers from which giant molecules grow. The character of the growing molecule is controlled by the nature of the generating complex and by temperature. When the catalytic complex is firmly fixed on solid crystals with a

layer structure and the reaction proceeds at low temperature, it generates a perfectly regular, isotactic ~~chain~~ molecule of tremendous length. When the generating complex is less firmly rooted ~~on~~ in the crystals, or when the process is carried out at high temperatures, the chain changes its pattern of growth from time to time and we get a molecule of the block type. When the catalysts are embedded in an amorphous support, we get atactic, or irregular, molecules.

The giant molecules themselves do not suggest life, but the catalytic complexes that generate them do. We should speak not of "living molecules," as Szwarc did, but of "living complexes." A molecule growing from the catalytic complex on

the surface of a crystal is like a hair growing from its root: that is, the monomers are added at the root. The long molecule is very thin and very delicate--far more easily torn loose than an actual hair. Even the eddies produced by stirring the liquid will tear the molecule from its generating complex, as a windstorm can tear a slender plant stem from its roots. But the generating complex, like a root, does not die; it retains the ability to send forth new shoots. It is, however, subject to a number of mortal dangers: certain poisons will kill its ability to generate molecules; freezing or lack of nourishment will render it inactive, and so on.

No one will be misled into supposing

that these complexes bear any basic resemblance to a living organism. Nevertheless the analogies between the way they build giant molecules and the way an organism does are striking, and very hopeful for the future of polymer chemistry. A living creature builds its high polymers, precisely tailored according to a set design, by means of catalysts (enzymes). We are now in a position to hope that, with a man-made catalysts, we shall be able to produce predesigned giant molecules in the same controlled and orderly way.

In some respects we can improve on nature. As I have mentioned, we shall probably be able to create many new molecules which do not exist in living

matter. They can be made from simple, inexpensive materials. And we can manufacture giant molecules more rapidly than an organism usually does. For example, a single active center in a catalyst can generate more than 10,000 polypropylene molecules of 200,000 molecular weight ~~at the rate of more than 10,000 molecules~~ in 200 hours — polymerizing monomers at the rate of 250,000 per hour

Although it is less than four years since the new methods for controlled synthesis of macromolecules were discovered, already many new synthetic substances--potential fibers, rubbers and plastics--have been made. Thousands of chemists are now devoting themselves to this new field of research, in industrial and university laboratories. Unlimited possibilities have been open-

ed to their imagination.

an Article from **SCIENTIFIC AMERICAN**

SEPTEMBER, 1957 VOL. 197, NO. 3

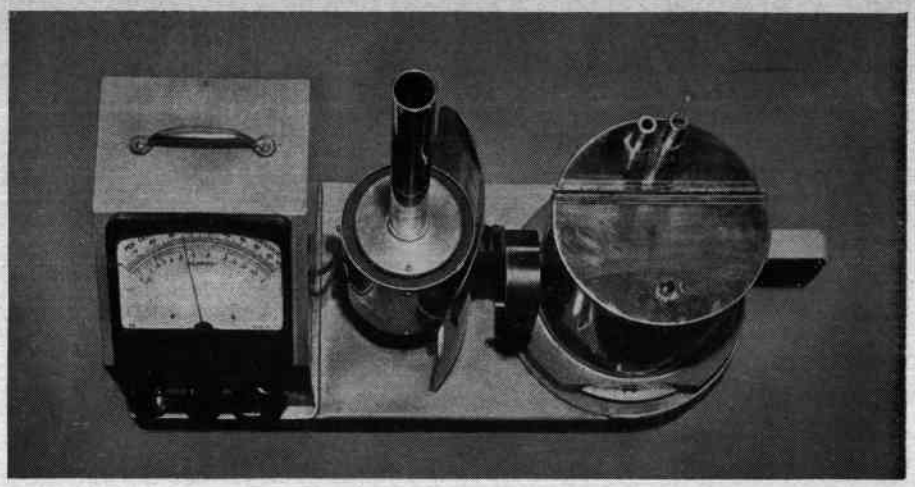
average of the squares of all these distances is taken to define the average size of the molecule.

As a specific example let us take the molecule of polystyrene in solution in benzene. A polystyrene molecule of molecular weight one million has about 20,000 C-C links, each 1.5 Angstrom units long (one Angstrom is a hundred millionth of a centimeter). From the information aforementioned, we compute that the average end-to-end distance, or diameter, of the molecule is about 300 Angstroms.

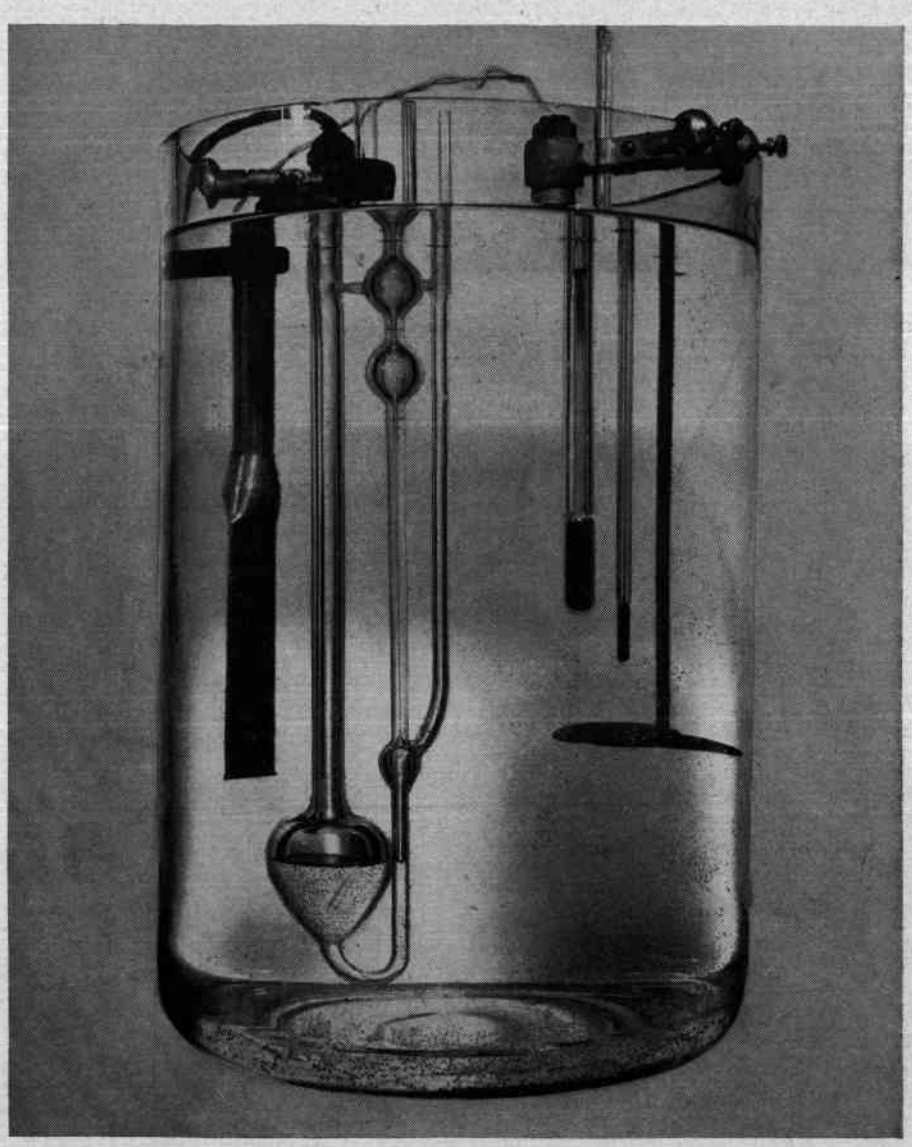
Now this size begins to be comparable with the wavelengths of visible light (which are in the neighborhood of 5,000 Angstroms). A molecule of such a size no longer acts like a single point in intercepting and reradiating light; instead, light comes from various points on the molecule, and as a result we have interference effects because of phase differences in the scattered light waves. The intensity of light-scattering now depends on the angle from which we view the beam [*see diagrams on opposite page*]. On the average a solution of large molecules scatters more energy forward, in the direction of the beam, than backward. What is most important, the larger the molecule, the higher the proportion of light scattered in the forward direction.

We can consult this scattering pattern, then, as a guide to the size of molecules. Polystyrene has been so studied, and it has confirmed the prediction that the size of a molecule is proportional to the square root of the number of C-C links. However, the size in each case is substantially larger than had been calculated theoretically: polystyrene of molecular weight one million has an average "diameter" (end-to-end distance) of 1,100 Angstroms instead of 300. The chief reason for the discrepancy is that in considering the possible configurations the calculation failed to take account of such factors as the impossibility of two monomers in the chain simultaneously occupying the same position in space. Naturally the molecules cannot be as compact, on the average, as such a calculation predicts.

The mathematical difficulties in dealing with these enormously complex molecules are so formidable that we are far from any fully satisfactory quantitative description of them. But all in all, the combined information from the various measurements—of viscosity, osmotic pressure and scattering of light—is beginning to give us a clear picture of their size and structure.



PHOTOMETER measures light scattering. Light source is a mercury arc in the cylinder in the center. The beam passes through a shutter to the dark chamber at right. This contains the scattering solution and a photocell which can be rotated by means of the graduated dial at the bottom of the chamber. The meter at the right indicates the current in the photocell.



VISCOMETER is essentially a capillary tube. In this photograph the capillary is the center tube in the assembly of glass at left in the large vessel. Liquid drawn up from the bottom bulb fills the two small bulbs above the capillary. It is then timed as it flows out. The rest of the apparatus in the vessel is for the purpose of maintaining constant temperature.

How Giant Molecules Are Made

New catalysts control the orientation of monomers as they are linked in chains. This greatly increases the range of properties that can be built into synthetic polymers

by Giulio Natta

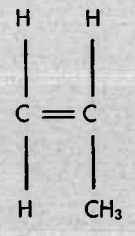
A chemist setting out to build a giant molecule is in the same position as an architect designing a building. He has a number of building blocks of certain shapes and sizes, and his task is to put them together in a structure to serve a particular purpose. The chemist works under the awkward handicap that his building blocks are invisible, because they are submicroscopically small, but on the other hand he enjoys the happy advantage that nature has provided models to guide him. By studying the giant molecules made by living organisms, chemists have learned to construct molecules like them. What makes high-polymer chemistry still more exciting just now is that almost overnight, within the last few years, there have come discoveries of new ways to put the building blocks together—discoveries which promise a great harvest of new materials that have never existed on the earth.

We can hardly begin to conceive how profoundly this new chemistry will affect man's life. Giant molecules occupy a very large place in our material economy. Tens of millions of men and women, and immense areas of the earth's surface, are devoted to production of natural high polymers, such as cellulose, rubber and wool. Now it appears that synthetic materials of equivalent or perhaps even better properties can be made rapidly and economically from coal or petroleum. Among other things, this holds forth the prospect that we shall be able to turn much of the land now used for the production of fiber to the production of food for the world's growing population.

In this article I shall explain how the synthetic giant molecules are made. The molecules with which we are here concerned are the chainlike structures made of organic building blocks. They are formed by linking together hundreds or thousands of these units, called monomers. Let us consider the monomers first.

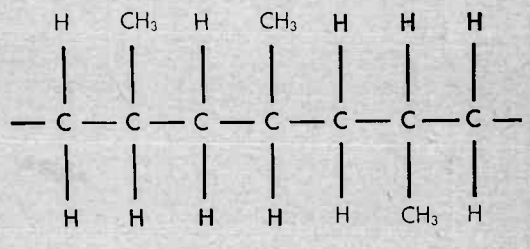
A monomer whose structure consists simply of a backbone of carbon atoms with hydrogen atoms ranged along the sides lends itself to the formation of a neat, straight chain of links hooked end to end, though it may also grow branches. Chain molecules of this type readily align themselves alongside one another and can be oriented to form fibers. The structure becomes more complex when, in place of hydrogen atoms, the monomer has side groups—for example, the methyl group (CH_3). A chain formed of such monomers may have one of three arrangements [*see diagrams at right*]. (1) The side groups may occur at random on either side of the chain; this type of polymer is called "atactic," meaning lacking in order (tactic comes from the Greek word for order). (2) The groups may all lie on one side of the chain; this arrangement is called "isotactic." (3) They may alternate from one side to the other in regular order; this type is called "syndiotactic."

These elements of structure lead to a great variety of formations. Isotactic chains easily line up side by side and form crystalline structures, whereas atactic chains tend to make an amorphous material. Blocks of different polymers may be joined end to end, or one polymer may be grafted onto another as a branch on the main chain [*see diagram on page 89*]. In each case the structure confers certain mechanical

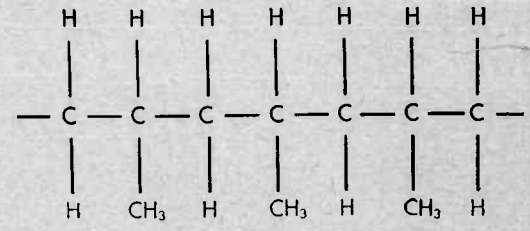


PROPYLENE is the monomer of the polymer chains depicted in formulas at right.

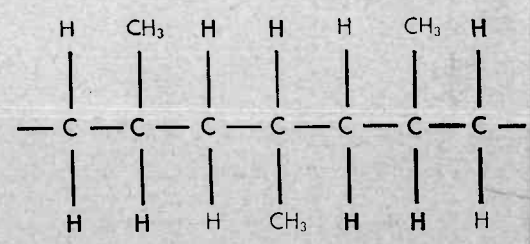
1.



2.



3.



**POLYPROPYLENE can now be prepared in various forms. If the CH_3 side groups (*in*

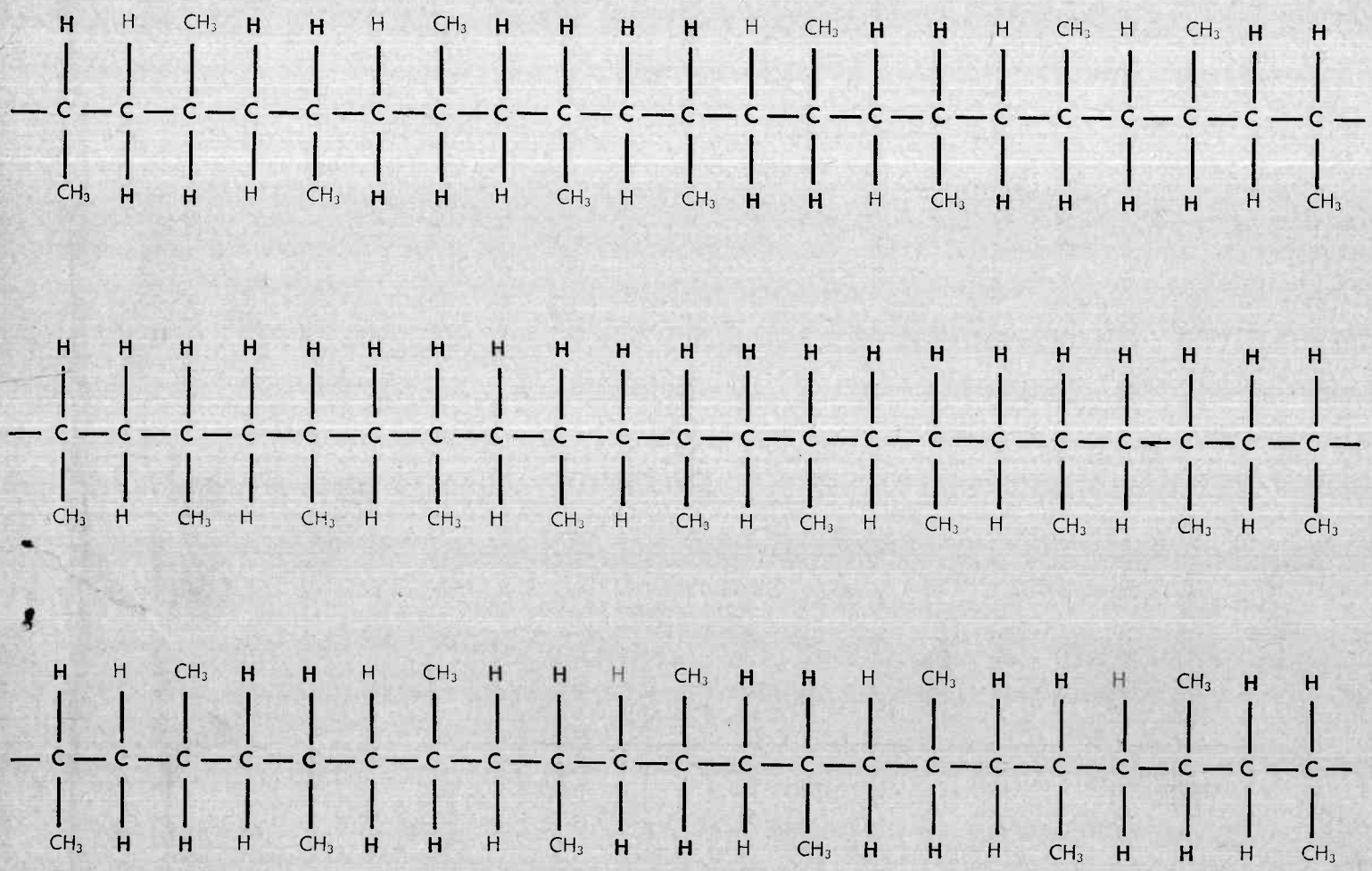
properties on the polymer, as Arthur V. Tobolsky explains in the following article [*page 120*]. For example, crystallinity gives a polymer strength and a high melting point, side-by-side alignment of the chains in bundles allows formation of a fiber, and so on.

How do monomers grow into a chain; that is, how do they link themselves together? There are two ways, called condensation and addition. In the condensation process, monomers or groups of monomers, upon being heated, unite spontaneously and at random by chemically active hooks at their ends—like skaters or groups of skaters linking arms. In the addition process the polymer builds up, one monomer at a time, by a chain reaction, very much as if one person grasped a live wire and was fixed to it, a second seized the first and was himself held fast by the electricity, a third person similarly was added to the chain by seizing the second, and so on.

Let us follow through the condensation process. Suppose we dump a mixture of monomers into solution and heat the mixture. If the monomers are equipped with chemically active hooks, we can expect them to link up into polymers. But the product we get will be strictly accidental. Like a tile floor in which tiles of different colors are put together at random, the polymer will have no predictable pattern, because the monomers, having no preference for any particular configuration, will have linked up by chance.

If, however, we use monomers which join only in one way, we can predict what kind of chain they will form. We take, let us say, two monomers: one has a basic group, the amino group (NH_2), at each end, the other has an acid group, carboxyl (COOH), at each end. The two monomers will hook up end to end, the basic end of one linking up with the acid end of the other and splitting off a molecule of water in the chemical reaction [*see diagrams at the bottom of pages 86 and 87*]. This is the classical reaction by which, in nature, amino acids are linked to form proteins, as Paul Doty explains in the article on page 173. It has been adapted by man to make synthetic fibers such as nylon. The monomers may have a basic group at one end and an acid at the other, or basic groups at both ends, or acids at both ends; in all cases it is the inherent chemical affinity between the end groups that causes the monomers to grow into a linear polymer.

This building plan, upon which Wallace H. Carothers of du Pont based his synthesis of nylon, is derived from the design of the natural fibers of wool and silk. They too are made by condensation of simple, regular monomers, all of the same configuration (levorotatory). Their monomers are amino acids, with an amino group at one end and a carboxyl at the other; they link up into long chains; the chains in turn are spun into strong fibers. All these lessons from the natural models have been followed by the creators of synthetic fibers. We do not know very much about how living organisms carry out their building and spinning processes,



***color with adjacent hydrogen*) are located at random on either side of the carbon chain, the polymer is called atactic (1). If they are on the same side, the material is isotactic (2); if the groups are distributed from side to side in a regular way, it is syndiotactic (3).**

but the chemist has his own methods.

The construction of polymers by the condensation method is rather slow and tends to come to an almost complete stop before the molecules have attained a truly giant size, because as the chains grow they become less mobile and less numerous and therefore less likely to encounter free building blocks in the solution. Fortunately products such as nylon have acquired their valuable properties when they reach a molecular weight of 10,000 to 20,000. But to build molecules with molecular weights in the hundreds of thousands or millions by condensation is very difficult.

The addition method, on the other hand, can produce giant molecules of almost unlimited size. Starting from an active center (an activated monomer which serves as a kind of seed), it adds one monomer at a time and rapidly builds a chain which in theory can go on growing indefinitely as long as the supply of building blocks holds out. The process is comparatively simple but difficult to control. As I mentioned, the monomers here employed do not start with built-in chemical hooks, as condensing monomers do: instead the hooks have to be generated. Each monomer, upon joining the chain, thereby acquires a hook to seize another. There are various ways of generating such a hook, or bond; each requires a catalyst.

One method employs free radicals as the catalyst. (Actually they differ from true catalysts in that they are consumed in the polymerization reaction.) A free radical is a compound with an unpaired electron—usually a fragment of a larger molecule which has been split by heating. The unpaired electron makes the radical very reactive: it readily hooks itself to another molecule by its odd electron. Suppose it encounters a monomer. In an organic monomer the carbon and hydrogen atoms are held together by covalent bonds, meaning that the bond consists of a pair of electrons shared between a pair of atoms. The conventional symbol C-C represents two carbon atoms linked by an electron pair. Frequently the carbon atoms are joined by a double bond (C=C)—that is, two pairs of electrons. Now when a free radical encounters a double bond, it may pair with one of the electrons in the extra bond, leaving the other member of the pair without a partner. Thus the monomer itself becomes a radical: it now has an unpaired electron at one end [*see diagrams at top of pages 86 and 87*]. It promptly reacts with a second monomer; the newly released electron at the end of the second seizes a third monomer; the third grasps a fourth, and so the chain grows. It can grow to giant size and might increase without limit but for the fact that the reactive end of the chain is not restricted to reacting with monomers: it may combine with other molecules in the solution, or two chains may join head on (*i.e.*, at their free-radical ends), thus closing the growing points of both.

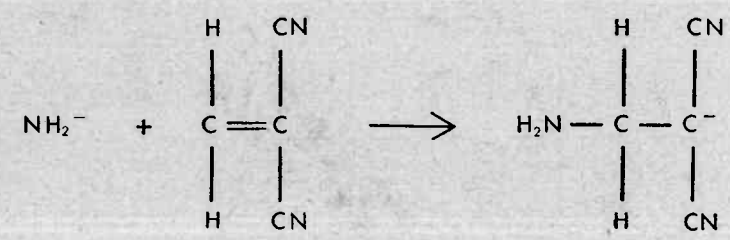
Among the polymers that can be made by the free-radical method are polyethylene [*see article on page 139*], polystyrene and polyvinyl chloride. Some of these giant molecules are perfectly linear, like a long snake; some are branched, like a tree. Branches develop when free radicals start side growths at points along the chain. This is particularly likely to happen when a polymer is produced at high temperature. For example, polyethylene made by the high-pressure process (at pressures above 1,000 atmospheres and temperatures above 212 degrees Fahrenheit) is highly branched: it may have several long branches and hundreds of small ones. The branches interfere with packing of the chains in crystalline (*i.e.*, regular) arrangements, and as a result polyethylene synthesized by this method has a comparatively low crystallinity—30 to 60 per cent. With low crystallinity go low strength and a low melting point.

Free radicals are one type of catalyst that can grow polymers by addition; another method involves the use of ions as catalysts. The latter is a very recent development, and to my mind it portends a revolution in the synthesis of giant molecules, opening up large new horizons.

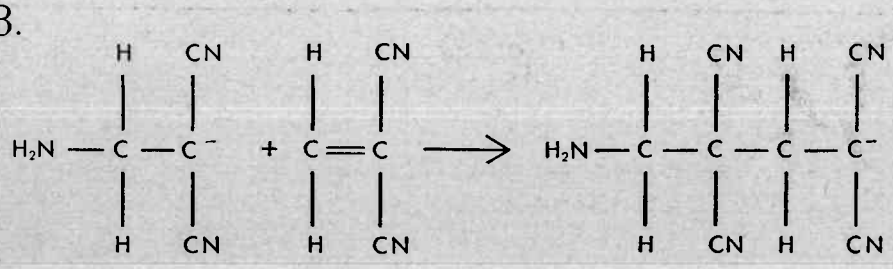
Under certain circumstances the electrons of a double bond between the carbon atoms in a monomer can be so displaced that one of the carbon atoms in effect has a positive charge while the other end of the molecule is negative. The carbon atoms are "polarized," so to speak. If we now neutralize the positively charged carbon atom by causing it to react with a negative ion, the other end of the monomer becomes negatively charged, because of its unneutralized negative carbon atom. It will then act as a negative ion and attach itself to the positively charged end of a second "polarized" monomer [*see diagram at the left*]. This again leaves a negative charge at the growing end of the molecule. Thus, by a chain reaction like the one

1.

2.



3.



IONIC ADDITION is illustrated by example. Sodium amide splits into ions (1). A negative NH_2 ion combines with the positive end of a vinylidene nitrile monomer (2). The negative end of this monomer then combines with the positive end of a second (3), and so on.

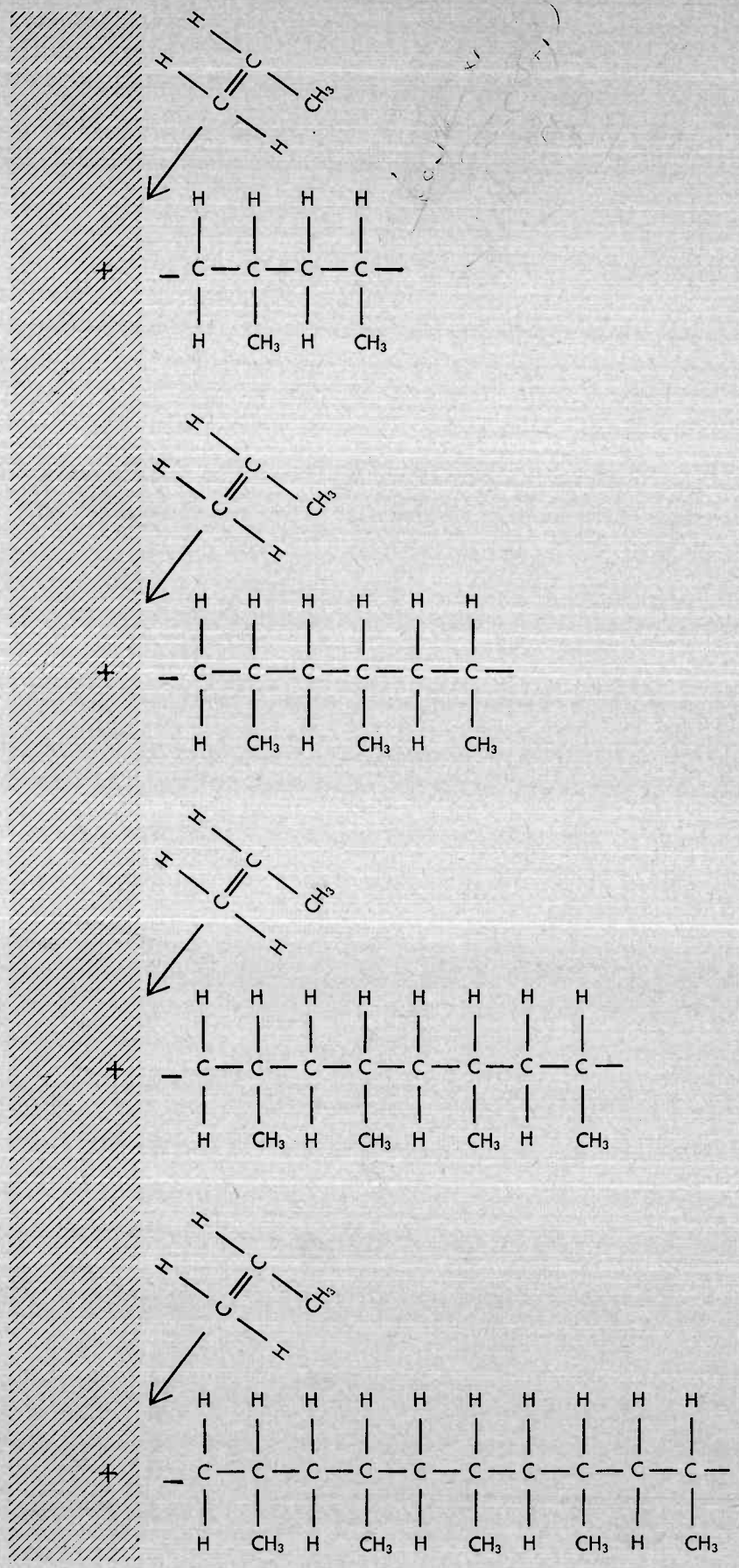
catalyzed by free radicals, the molecule grows to a high polymer. This version of the ionic process uses negative ions (anions) as the catalysts. The process also works in reverse: if positive ions (cations) react with the negatively charged end of a polarized monomer, it will grow from the positively charged end.

The cationic method has produced some very interesting high polymers: for instance, butyl rubber, the synthetic rubber used for tire inner tubes. But the anionic catalysts, a more recent development, have proved far more powerful. They yield huge, made-to-order molecules with extraordinary properties.

Experiments with anionic catalysts had been carried on for a number of years. Before World War II Russian chemists, by a process using sodium as the catalyst, had produced a synthetic rubber from butadiene, but the rubber was of rather poor quality. In the U. S. the polymer chemist Avery Morton had obtained very large polymers of butadiene and styrene with an ionic process. And Michael Szwarc had generated tremendous chains of polystyrene which he called "living molecules," because even after they had stopped growing, having used up the available styrene, they would start growing again if more styrene was supplied later.

Only in the last four years, however, have the great possibilities of ionic catalysis begun to take shape. In 1953 Karl Ziegler in Germany, and less than a year later the du Pont Company in the U. S., patented new ionic processes for making polyethylene. These processes made it possible to synthesize polyethylene at atmospheric pressure and temperatures as low as 90 degrees F., instead of the very high pressures and temperatures previously required. For the first time the molecule could be polymerized in a ~~regular~~, unbranched form, producing a strong, crystalline material with high resistance to heat.

Early in 1954 our group in the Institute of Industrial Chemistry of the Polytechnic Institute of Milan, using certain special catalysts, succeeded in polymerizing more complex monomers of the vinyl family (of which ~~ethylene~~ propylene is a member). We were able to generate chains of very great length, running to molecular weights in the millions (up to 10 million in one case), and to produce at will either isotactic or syndiotactic or atactic forms of the chains. In other words, we found that it was possible, by a

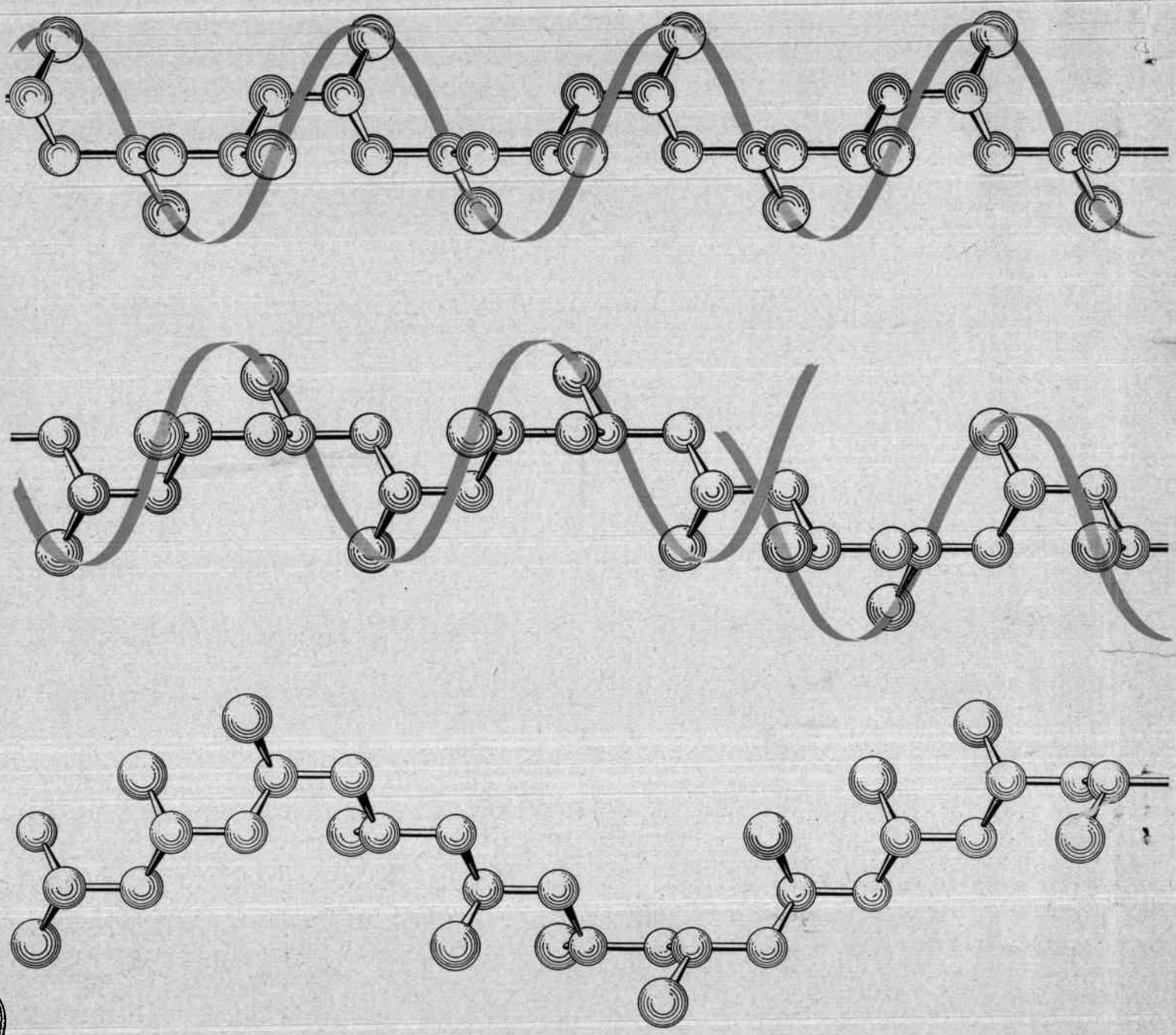


NEW IONIC CATALYST is a solid material (*colored band*) containing complex positive ions. It grows ordered polymers, in which new units add themselves at the inside end of the growing chain. Shown here are four stages in the growth of isotactic polypropylene.

proper choice of catalysts, to control the growth of chains according to predetermined specifications.

Among the monomers we have polymerized in this way are styrene and propylene, both hydrocarbons derived from petroleum. The polypropylenes we have made illustrate the versatility of the method. We can synthesize them in three forms: isotactic, atactic or "block isotactic," that is, a chain consisting of blocks, one having all the side groups aligned on one side, the other on the opposite side [*see diagrams below*]. The isotactic polypropylene is a highly crystalline substance with a high melting point (346 degrees F.); it makes very strong fibers, like those of natural silk or nylon. The atactic product, in contrast, is amorphous and has the elastic properties of rubber. The block versions of polypropylene have the intermediate characteristics of a plastic, with more or less rigidity or elasticity.

The possibility of obtaining such a wide array of different products from the same raw material naturally aroused great interest. Furthermore, the new controlled processes created properties not attainable before: for example, polystyrene, which had been known only as a glassy material with a low softening point (under 200 degrees F.), now could be prepared as a strong, crystalline plastic with a melting point near 460 degrees. The new-found power of the anionic catalysts stimulated great activity in polymer research, both in Europe

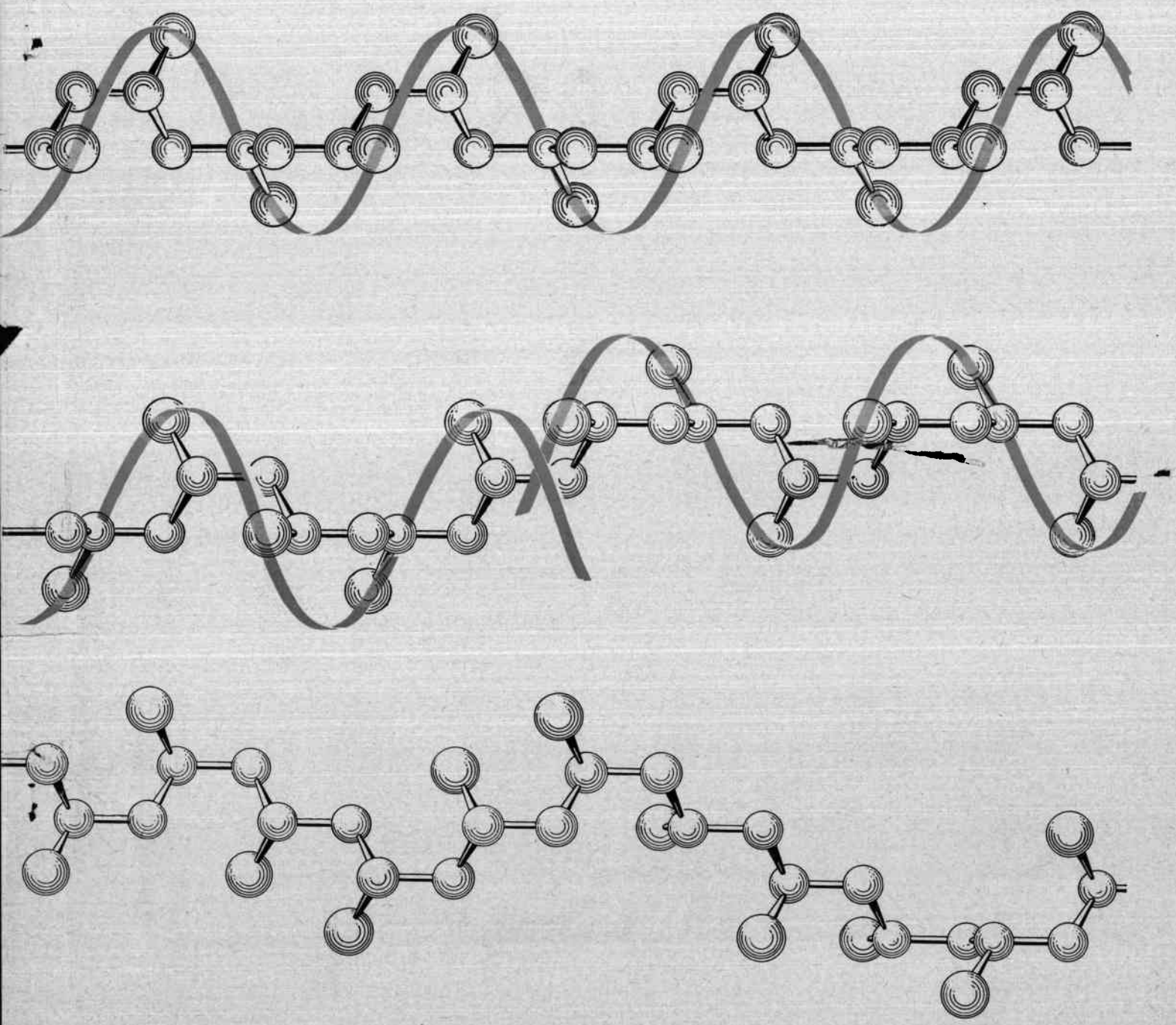


5)

DEGREES OF ORDER in polypropylene molecules can be varied. Isotactic molecule (*top*) has CH_3 side groups (*the balls through which the imaginary colored ribbon passes*) in a regular helical sequence around the central chain. It forms crystalline fibers. The

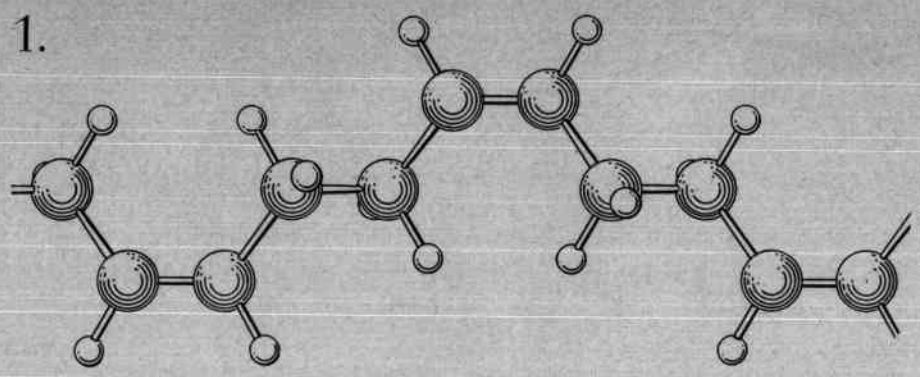
and in the U. S. New polymers were made from various monomers. In our own laboratory we synthesized all of the regular polymers, and some amorphous ones, that can be made from butadiene; some of the products are rubber-like, others not. At about the same time the B. F. Goodrich Company and the Firestone Tire and Rubber Company both announced that they had synthesized, from isoprene, a rubber identical to natural rubber—a problem on which chemists throughout the world had worked in vain for more than half a century.

What are the magical new catalysts that have shown such remarkable powers? Most of them are complexes consisting of several substances: for instance, the chloride of a metal with an unfilled electron shell (*e.g.*, titanium) and an "organometallic" compound (*e.g.*, aluminum linked to an alkyl group). Groups of ions of these substances serve as the active centers from which giant molecules grow. The character of the growing molecule is controlled by the nature of the generating complex and by temperature. When the catalytic complex is firmly fixed on solid crystals with a layer structure and the reaction proceeds at low temperature, it generates a perfectly regular, isotactic molecule of tremendous length. When the generating complex is less firmly rooted in the crystals, or when the process is carried out at high temperatures, the chain changes its pattern of growth from time

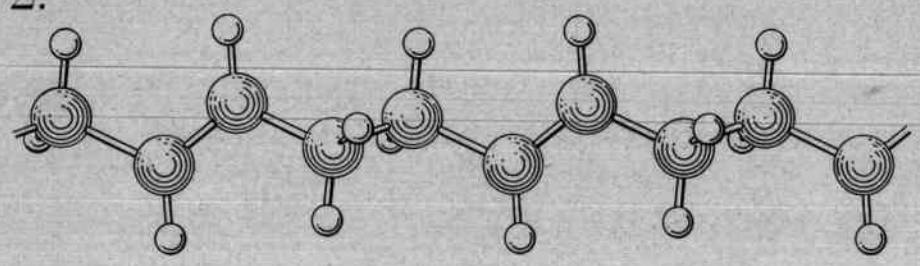


middle diagram shows a section of a block polymer with three isotactic parts. It forms a less crystalline, leathery material. A random molecule (*bottom*) forms an amorphous, rubbery substance. The balls in the backbone represent, alternately, CH_2 and CH groups.

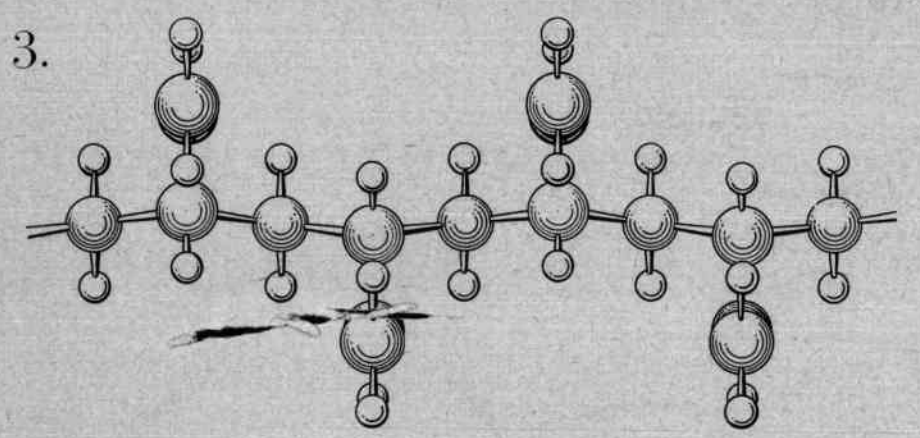
1.



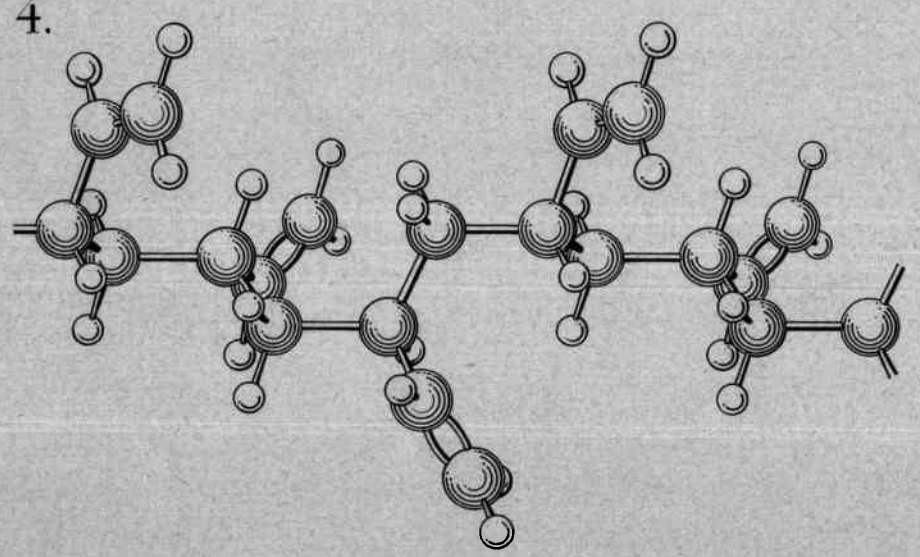
2.



3.



4.



POLYBUTADIENE has recently been prepared in all four possible stereoisomeric forms by Natta and his colleagues in Milan. In these diagrams the large balls represent carbon atoms; the small balls, hydrogen atoms. Form 1 is a rubbery substance; form 2 is fibrous.

to time and we get a molecule of the block type. When the catalysts are embedded in an amorphous support, we get atactic, or irregular, molecules.

The giant molecules themselves do not suggest life, but the catalytic complexes that generate them do. We should speak not of "living molecules," as Szwarc did, but of "living complexes." A molecule growing from the catalytic complex on the surface of a crystal is like a hair growing from its root: that is, the monomers are added at the root. The long molecule is very thin and very delicate—far more easily torn loose than an actual hair. Even eddies produced by stirring the liquid will tear the molecule from its generating complex, as a windstorm can tear a slender plant stem from its roots. But the generating complex, like a root, does not die; it retains the ability to send forth new shoots. It is, however, subject to a number of mortal dangers: certain poisons will kill its ability to generate molecules, freezing or lack of nourishment will render it inactive, and so on.

No one will be misled into supposing that these complexes bear any basic resemblance to a living organism. Nevertheless the analogies between the way they build giant molecules and the way an organism does are striking, and very hopeful for the future of polymer chemistry. A living creature builds its high polymers, precisely tailored according to a set design, by means of catalysts (enzymes). We are now in a position to hope that, with man-made catalysts, we shall be able to produce predesigned giant molecules in the same controlled and orderly way.

In some respects we can improve on nature. As I have mentioned, we shall probably be able to create many new molecules which do not exist in living matter. They can be made from simple, inexpensive materials. And we can manufacture giant molecules more rapidly than an organism usually does. For example, a single active center in a catalyst can generate more than 10,000 polypropylene molecules of molecular weight 200,000 in 20 hours—polymerizing monomers at the rate of 250,000 per hour!

Although it is less than four years since the new methods for controlled synthesis of macromolecules were discovered, already many new synthetic substances—potential fibers, rubbers and plastics—have been made. Thousands of chemists are now devoting themselves to this new field of research, and unlimited possibilities have been opened to their imagination.

PRINCETON UNIVERSITY
DEPARTMENT OF CHEMISTRY
PRINCETON, NEW JERSEY

ck Chemical Laboratory

USH
"T"

Prof. G. Natta
Milan

Dear Prof. Natta:

Thank you very much for your letter of June 24. I am deeply honored by your request that I write a review article on stereospecific polymerization, a field to which you have made undying contributions. I agree that many papers and reviews on this subject have succeeded in muddying the waters and were written without objectivity or keen understanding.

(over)

I regret however that it will not be possible for me to write a comprehensive review article because of the pressure of time and because of other heavy commitments.

I do hope that you will continue sending me reprints of your inspiring articles. My heartfelt congratulations on your splendid achievements.

My best wishes for your continued good health.

Very truly yours

Arthur Mobolsky

THATCHER GLASS
MANUFACTURING COMPANY, INC.

ELMIRA · NEW YORK

June 14, 1957

DR. ROY S. ARRANDALE
VICE PRESIDENT
TECHNICAL DIRECTOR

Professor Guilio Natta,
Milan Institute,
Milan, Italy.

Dear Sir:

I recently read in the Industrial Engineering News Edition of the American Chemical Society, of your efforts in the United States a year ago to interest polyethylene manufacturers in the manufacture of polypropylene. It is said that this attempt did not meet with favorable results and you felt there had been much mis-information about polypropylene which has appeared in the literature. For example, you felt that although it loses its crystallinity at 350° F., it does not deteriorate.

This news item goes on to say Montecatini is building a 13,000,000 pound per year plant at Ferrara, Italy and that the process will not be again offered for license until plant runs are made. It also states that polypropylene film is transparent, which of course to us is one of the discouraging features of polyethylene. It also states that you say the polymer is stiffer than polyethylene but some American companies disagree.

I wonder if you would care to outline your thoughts and feelings on this matter to me in a letter. I am sorry to have to write this letter in English, but if you care to answer in Italian we can manage to have it translated properly.

Thanking you in advance,

Yours very truly,

Roy S. Arrandale

Roy S. Arrandale
Vice President & Technical Director

cml

The Saturday Review 25 West 45th Street • New York 36, N. Y.

mp

January 14, 1957

Dear Mrs. Natta:

When, after 25 years of utter seclusion, the Gordon Research Conferences in the summer of 1956 decided to admit a reporter from the press, the first man to be invited was the Science Editor of The Saturday Review.

John Lear may have attended one of the Gordon Conferences that you attended. Perhaps you met him there in the hills of New Hampshire. If not, you can still make his acquaintance in The Saturday Review's new Science Section, which appears as a magazine-within-a-magazine on the first week of every month.

The introduction to the first Science Section last March took note that "science has come to be thought of as an almost unnatural force, strange and alien." Month by month since then, the Section has been directed toward persuading people otherwise -- reminding non-scientists that science is intimately shaping and moving their lives from day to day, and that there is urgent need for greater attention to the inquiring mind at work on the frontier of new knowledge. In past issues, contributions to the new Science Section have included:

> Linus Pauling...John von Neumann...Vladimir Zworykin...Henry Eyring ...John Pierce...W. O. Milligan...Lee A. DuBridge...Glenn Seaborg... John Gardner...Senator Margaret Chase Smith...Farrington Daniels... Harold Urey...Philip S. Hench...Roger Revelle...John Hagen...Fred L. Whipple...and Dr. Harold G. Wolff.

If you, as a scientist, are wont to ponder the wonders of science not for themselves alone but for their meaning to our times, we invite you to join the dedicated company of subscribers to The Saturday Review, who together pursue the experimental method through the disciplined quiet of the laboratory out into the restless surge of life beyond its windows.

We invite you to get acquainted with the new, expanded Saturday Review <u>now</u> -- at the special rate of 48 issues for only $3.88 (a regular $9.60 newsstand value; $6.48 by subscription). May I suggest you send us your order today?

Sincerely,

George Emerson

George Emerson
For SATURDAY REVIEW

GE:AGS

P. S. If you find it equally convenient to enclose payment with your order -- saving us billing expense -- we'll add 4 extra issues to your subscription. That's a total of 52 -- a full year of SATURDAY REVIEW for only $3.88 (the regular rate is $7.00).

CELANESE CORPORATION OF AMERICA

Manufacturers of Celanese *Brand Products*
REG. U. S. PAT. OFF.

P. O. BOX 1000
SUMMIT, NEW JERSEY
TELEPHONE: SUMMIT 6-6600

SUMMIT
RESEARCH LABORATORIES

December 4, 1956

OUR REF. ES-56-73

Professor Giulio Natta
Department of Industrial Chemistry
Polytechnic Institute
Milan, Italy

I wish to thank you for your recent letter in which you kindly acknowledged the receipt of a translation of your paper given at the last Gordon Research Conference. Your paper aroused so much interest amongst our chemists that we had to prepare additional copies of the translation. It gives me great pleasure to send you ten copies of this translation, under separate cover, and I hope that you find use for them for distribution amongst your english speaking correspondents.

With my best wishes for the coming years, I am

Very truly yours,

CELANESE CORPORATION OF AMERICA
SUMMIT RESEARCH LABORATORIES

E. Schweizer
E. Schweizer

ES:nac

Grazie!

Sugli atti del Consiglio!

RN

in inglese

Mr. D;James P.Danehy,
Associate Professor of Chemistry
University of
Notre Dame, Indiana

Dear Mr. Danehy,

il Prof. G.F. DàAlelio mi ha scritto informandomi del Suo desiderio di "carry on research in the field of polymer chemistry nel nostro Istituto e mi ha mandato un programma di lavoro da Lei preparato.

Le unisco copia di una lettera che ho mandato in proposito al Prof. D'Alelio e Le confermo che da parte nostra sarò lieto di ospitarLa presso il mio Istituto, in particolare se Lei intende fare delle ricerche nel campo dell'esame con i raggi X o all'infrarosso dei polimeri da Lei preparati.

With kindest regards,

Prof.G.Natta

~~Annexe~~
Enclosed -

Bozzi -

Fare lettera in in plene -

~~Informare con una copia in~~ per Mr. Danehy

Mr. G.F. D'ALELIO, Head
UNIVERSITY of Notre Dame
Department of Chemistry
Notre Dame, Indiana

Dear Mr. D'Alelio,

ricevo la Vostra gentile lettera del 23.9 relativa al Dr. James P. Danehy, il quale "is applying for a Fulbright Award to carry on research in the field of polymer chemistry".

Desidero informarLa che noi non ci siamo mai occupati dei "synthetic polypeptides", e penso che un lavoro futuro non

La pregherei di comunicarmi in quale periodo Mr. Danehy desidererebbe venire nel nostro laboratorio. Prossimamente dobbiamo trasferirci dal nostro laboratorio attuale alla nuova sede e sinchè questo nuovo building non sarà completato, noi manchiamo di spazio. Penso perciò che potremo accogliere bene Mr. Danehy soltanto nell'anno scolastico 1958-59. Prima non potrei mettere a disposizione di Mr. Danehy un laboratorio e il lavoro potrebbe essere limitato soltanto allo studio di struttura con i raggi X od all'infrarosso nel caso che Mr. Danehy disponesse già di campioni preparati, e lo studio potrebbe essere limitato al loro esame.

~~Ad ogni modo~~ sarò lieto di accogliere Mr. Danehy nel nostro Istituto anche nel caso che non fosse del tutto soddisfatto.

With kindest regards,

Prof.G.Natta

~~Non posso~~ essere effettivamente sicuro di Mr. Danehy perché non ho avuto completa segno in tal campo. La pregherei di inviarmi copia della pubblicazione di Mr. Danehy sul campo dei polipeptidi

UNIVERSITY OF NOTRE DAME
Notre Dame, Indiana

DEPARTMENT OF CHEMISTRY

September 23, 1957

Professor Giulio Natta
Istituto Politecnico
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

Dr. James P. Danehy, Associate Professor of Chemistry on our faculty at the University of Notre Dame is applying for a Fulbright Award to carry on research in the field of polymer chemistry. He is most anxious to conduct this research in cooperation with you at your institute. Specifically, he wishes to study synthetic polypeptides containing controlled quantities of sulfhydryl and disulfide linkages. For your information I am enclosing a copy of his statement of the research problem which he has submitted with his application for the Fulbright Grant. I recommend Dr. Danehy without reservations of any kind. Will you please write to Professor Danehy, giving him your reaction to this proposal.

Mrs. D'Alelio joins me in sending you and Mrs. Natta our best wishes in fond remembrance of your visit to South Bend.

With kindest regards,

Sincerely yours,

G F D'Alelio

B

G. F. D'Alelio, Head

June 19, 1957

Mr. Roy S. Arrandale
Vice President & Technical Directo:
THATCHER GLASS Manufacturing Co., I
E L M I R A - New York - U.S.A.

Rif. No. 1211/rl

Dear Mr. Arrandale,

I received your kind letter concerning the information appeared on the Industrial Engineering News Edition of the American Chemical Society.

I think that it is better do not mind the news appearing on such reviews, not scientifi as the journalist are not competent in these matters. I consil you to read only the specialist reviews. Till now, our papers appeared only on German and Italian reviews (with particular regard to general papers), but in a few weeks some papers of ours will appear on American and English reviews.

With best regards.

Sincerely yours,

Giulio Natta

The Quaker Oats Company

COPY

CHEMICALS DEPARTMENT

February 28, 1957

Mr. Vittorio de Nora
Oronzio De Nora
Impianti Elettrochimici
Milan, Italy

Dear Mr. de Nora:

We are happy to hear that you will soon visit the U.S.A. and will look forward to a visit from you. If possible, please let us know a few days in advance so that we can arrange our schedules.

The question of what to do with the pilot plant is a difficult one and I believe that it should be left until we have a chance to sit down and talk.

Sincerely yours

Homer R. Duffey

Homer R. Duffey
Vice President
Chemicals Department

HRD:gdm

Copy to:
Professor G. Natta

24 Giugno 1957

Professor TOBOLSKY
Princeton University
Frick Chemical Laboratory
Dept. of Chemistry
PRINCETON - New Jersey - U.S.A.

Caro Tobolsky,

da tempo desideravo scriverLe ma ho ritardato sino ad ora a causa di un periodo nel quale non sono stato molto bene di salute e che mi ha costretto ad interrompere ogni lavoro per alcuni mesi

So che la società Montecatini avrebbe desiderato che qualcuno negli U.S.A. esponesse in modo obiettivo, in un articolo su di una rivista americana, tutta la storia delle polimerizzazioni stereospecifiche, e certamente Lei sarebbe stata la persona più adatta per farlo.

Apprendo ora da parte di Mr. Toulmin che Lei, a causa di altri impegni, ha rinunciato a tale incarico. Spero che Lei, dopo la fine dei corsi universitari, possa disporre di un pò più di tempo e, nel caso che Lei potesse ritornare sulla Sua decisione, La pregherei di avvertirmi perchè mi affretterei a mandarLe tutto il materiale di cui dispongo e che possa essere utile per alleggerire il Suo lavoro.

Spero di vederLa a Parigi. La prego di gradire molti cordiali saluti.

non se ne fa nulla

Giulio Natta

P.S. Le invio, separatamente, alcuni estratti dei nostri lavori nel campo delle polimerizzazioni.

11 Novembre 1957

Dr. E. Schweiser,

Celanese Corporation of America
Summit Research Laboratories
P.O. Box 1000
SUMMIT - New Jersey - U.S.A.

N° 842/

Dear Mr. Schweizer,

At present only I find out a letter I wrote, about a year ago, to you in which I thanked you for your kindness in sending to me copies of the translation you made of the paper I presented at 1956 Gordon Research Conference.

Owing to a deplorable mistake of my secretariat my letter was not mailed! I deply regret this delay in thanking you. I appreciated very much you translation.

With my best personal regards, I remain,

Very sincerely yours,

Giulio Natta

October, 9, 1957

Mr. D.James P. Danehy,
Associate Professor of Chemistry
University of
Notre Dame, Indiana

Ref.n.1703

Dear Mr. Danehy,

Professor G.F. D'Alelio has written to me, informing me that you wish to carry on research in the field of polymer chemistry at our Institute and has sent me a statement of the research program you intend to develop.

I beg to enclose herewith copy of the letter which I am sending to Mr. D'Alelio on this subject and I confirm you that I shall be pleased to give you hospitality at my Institute, particularly if you intend to carry on research in the field of the examination with X-rays or infrared spectrography of the polymers you have prepared.

With kindest regards,

Prof.G.Natta

Encl.

October 9, 1957

N° 1630/rl.

Mr. G.F. D'ALELIO, Head
University of Notre Dame
Department of Chemistry
Notre Dame, Indiana - U.S.A.

Dear Mr. D'Alelio,

I received your kind letter dated September 23, referring to Dr. James P.Danehy, who is applying for a Fulbright Award to carry on research in the field of polymer chemistry.

I wish to inform you that we have never been interested in the study of synthetic polypeptides and I think that a profitable work could be developed only if Mr. Danehy is already considerably competent in the said field.

You will oblige me very much sending me copy of the papers Mr. Danehy published in the field of polypeptides.

I beg you to kindly let me know when Mr.Danehy intends to come to our Institute. In fact, we shall soon have to remove from our present Institute to the new one and until this new building is not completed, the possibilities of work are strongly reduced. I therefore think we shall be in a position to receive Mr. Danehy properly only during the academic year 1958-1959. Before that date I could not put a laboratory at Mr.Danehy's disposal and the work could only be limited to the study of structure with X-rays and infrared spectrography, in case that Mr.Danehy could already dispose of prepared samples and the study could be limited to their examination.

In this case I shall be pleased to receive Mr. Danehy in our Institute, also before the said academic year.

With kindest regards,

Sincerely Yours,

(Prof.G.Natta)

To Prof Natta
From H F Bailey

Synthesis and Study of Polymers Containing Disulfide Cross-links and Free Sulfhydryl Groups: Models for Interpreting the Chemical and Mechanical Properties of Keratin Fibers

It has long been recognized that the numerous disulfide cross-links between polypeptide chains play an important, though not the sole, role in determining the mechanical properties of keratin fibers such as wool and human hair. Modification of the chemical and physical properties of these fibers by specific treatments can often be interpreted and correla- with the empirically determined fate of the sulfur atoms (-C-S-S-C- to -C-SH, $-C-SO_3H$, -C-S-C-, etc.).

The basis for understanding the chemistry and physics of these proteins could be broadened by a study of appropriate models: synthetic polymers characterized as to molecular weight distribution, amount and character of the distribution of disulfide and sulfhydryl groups, chemical character of the main polymer chain and of side chain substituents, and shape factors. Recently several reports have been published, varying widely in objectives and in the specific character of the work, but all having some relevance to this problem.*

Specifically, it is proposed to prepare polymers from N,N'-dicarboxycystine anhydride and, more particularly, copolymers from this substance with other N-carboxyamino acid anhydrides. The amino acid residues to be incorporated into the copolymers, other than the cystinyl residues, and the relative amounts of these residues, would be chosen so as to cast some light on the relative roles of salt bridges and of hydrogen bonds in the properties of these polymers. Preparations would be characterized and a study made of their chemical and physical properties as a function of controlled environment: "solvent", pH, ionic strength, redox potentials and temperature. Efforts will be made to obtain some of these polymers in filamentous form so that variation of mechanical properties as a function of environment may be studied.

It would be both appropriate and advantageous to conduct this work with the cooperation of Prof. Giulio Natta in his laboratories at the Instituto Politecnico in Milan, Italy.

It is anticipated that the results of this work would be published in the Gazzetta chimica italiana and/or in the Journal of the American Chemical Society.

* a. G. Champetier and J. Khaladji. Compt. rend. 241, 1393-5 (1955); Bull. soc. chim. 1955, 1623-30.
b. H. P. Gregor et al. J. Am. Chem. Soc. 77, 3675 (1955).
c. C. G. Overberger and A. Lebovits. J. Am. Chem. Soc. 77, 3675-6 (1955); ibid. 78, 4792-7 (1956).
d. E. Katchalski et al. J. Am. Chem. Soc. 78, 4483-8 (1956).

10 Ottobre 1957

Sig.Dr.Peter A. Castruccio,
Advisory Engineer
Systems, 041
Engineering, Air Arm Division
"Westinghouse", Electric Corp.
Box 746, Baltimore 3, MD (USA)

Rif.n.1676/el

Egregio Signor Castruccio,

ricevo la Sua lettera del 30.9., relativa al mio articolo su "Scientific American" che è risultato molto diverso da quello che avete inviato per la pubblicazione. Esso è stato molto modificato dalla redazione di tale giornale che aveva trovato che l'articolo originale era troppo difficile per il ~~Vostro~~ pubblico che legge "Scientific American". Non avendo potuto correggere le bozze, vi sono in tale articolo diverse inesattezze che sono state apportate da chi in America ha modificato l'articolo stesso.

Per quanto riguarda il polistirolo isotattico, la Soc. Montecatini ha preparato quantità sperimentali di tale materiale. Esso, allo stato attuale, presenta alcuni inconvenienti rispetto ad altri polimeri isotattici che sono in studio presso di noi e perciò è probabile che la sua produzione commerciale venga ritardata rispetto ad altri polimeri cristallini che appaiono oggi più interessanti.

Mi riprometto di esporre il Vostro desiderio alla Società Montecatini, affinchè Vi invii campioni nel caso che ne disponesse per la distribuzione a terzi.

Distinti saluti.

(Prof.G.Natta)

Westinghouse

ELECTRIC CORPORATION

AIR ARM DIVISION

September 30, 1957

PHONE: LINTHICUM 1000
FRIENDSHIP INT'L AIRPORT
BOX 746, BALTIMORE 3, MD.

Professor Giulio Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Professor Natta:

We have read with great interest your article which appeared in the September issue of "Scientific American".

We are greatly interested in your experiments with crystalline polystyrene of high melting point.

We would greatly appreciate your advising us whether such a material is presently being manufactured by any chemical company, and whether we could procure some experimental quantities of said material. We are presently interested in obtaining this substance in the form of granules or powder for molding purposes.

We presume that Montecatini is currently manufacturing this material but were unable to obtain any confirmation of this presumption. Thank you greatly for your assistance in this matter.

Very truly yours,

Peter A. Castruccio

Dr. Peter A. Castruccio, Advisory Engineer
Systems, 041
Engineering, Air Arm Division

PAC/meb

Egregio Professore:
Se Le è più comodo, risponda pure in Italiano
Grazie
P. Castruccio

USA 1958

Aerojet-General CORPORATION
A SUBSIDIARY OF THE GENERAL TIRE & RUBBER COMPANY
AZUSA, CALIFORNIA • TELEPHONES: LOS ANGELES, CUMBERLAND 3-6111 • AZUSA, EDGEWOOD 4-6211

21 July 1958

Dr. G. Natta
Instituto di Chemica Industriale del Politecnico,
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Sir:

I would be interested in receiving a reprint of your paper entitled:

"Coordinated Ionic Catalysis and Its Stereospecificity"

presented at the 133rd Meeting of the American Chemical Society.

Thank you for your consideration in this matter.

Very truly yours,

AEROJET-GENERAL CORPORATION

S. Witz

S. Witz,
Chemical Division

SW:jdn

[illegible] J. Poly. Sci

November 25,1958

Dr. R. Fuhrmann
Central Research Lab.,
Allied Chemical Corp.,
Morristown, N.J.
USA

936/mb

Dear Dr. Fuhrmann,

We received in due time your letter dated July 31. Please excuse us for not answering you sooner, due to the excess of work we had to perform lately.

With reference to the three questions contained in your letter and related to an article of ours : "Determinazione quantitativa della cristallinità del polipropilene", hereby we give you the answers :

1) Correction factor is F = 6.9 ; in fact A = ∫
2) The functions P ( ) (Lorentz and polarisation factor) and f_c^2 ( ) (carbon atom scattering factor) can be found on the "Internationale Tabellen zur Bestimmung von Kristallstrukturen, II vol. - Gebrüder Borntraeger - Berlin (1935) pag. 567, 571. P( ) was taken by us as $10^{-3} \frac{1 + \cos^2 2}{\text{sen}^2 \quad \cos}$

3) The procedure used for annealing, is performed in a metallic vacuum-tight sample-container whose capacity is adjustable by means of shims, in order to avoid the pressure to be carried on on the molded sheets of the polymer, for the effect of the volume increase following the heating. After heating at 200°C the sample is slowly air cooled.

As far as the last paragraph is concerned, we inform you that our experiments were performed almost every time on molded sheets, so that we did not notice any inconvenient such as the one you have remarked during your test.

We do hope that such clarification will be helpful to you and I remain, dear Dr. Fuhrmann,

Yours very truly,

(Prof. G. Natta)

July 29, 1958

Mr. S. Witz
Chemical Div.,
Aerojet - General Corp.,
Azusa, California
U.S.A.

Dear Mr. Witz,

I am very sorry [redacted] having to inform you that I have been left without a copy of the reprint you ask me for by your letter dated July 21st.

Hereby, I inform you that the paper you have mentioned will be printed on "Journal of Polymer Science" and, probably, in the October or November issues of 1958.

With my best regards,

Yours sincerely,

Prof. G. Natta

P.S. I shall not omit to send you copy of the reprints as soon as they are available.

Please send [illegible]

CENTRAL RESEARCH LABORATORY
ALLIED CHEMICAL CORPORATION

Allied Chemical

MORRISTOWN, NEW JERSEY • JEFFERSON 8-8000

Dato al Dr. Corradini con preghiera di preparare la risposta — RF

July 31, 1958

Prof. Dr. Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

I have studied with the utmost interest your article

Determinazione quantitativa della
cristallinita del polipropylene

published in Atti Acad. Lincei 1957, p. 11, and would be very grateful if you would be so kind and enlighten us on the following details:

1. On page 15 you give as a correction factor for the amorphous:

$$F = \frac{\int_0^{\pi} \frac{I(\theta)\, d\theta}{P(\theta) f_c^2(\theta)}}{A}$$

and underneath it is stated that the value of the integral is 6.9 ±0.1. Does this mean:

$$F = 6.9 \quad \text{or} \quad F = \frac{6.9}{A} \quad ?$$

2. Could you give us the reference for the tables of $P(\theta)$ and $f_c^2(\theta)$ functions?

3. On page 12 it is stated that the annealing is done at 200°C in the absence of pressure, with a slow cooling period.

Would you be able to give us more precise details on the procedure used for annealing (apparatus, rate of cooling?)

4. When polypropylene powder is used for X-ray diagrams, did you find a minimum particle size necessary? We have had great difficulty in obtaining a satisfactory powder with material of isotactic content lower than 50%.

Thanking you in advance for your most valued clarification, I remain

Very truly yours,

R. Fuhrmann

Dr. R. Fuhrmann

Dr. B. G. Rånby

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pennsylvania

RESEARCH AND DEVELOPMENT DIVISION

Oct. 24, 1958.

Dear Prof. Natta,

Enclosed I send a copy of a lecture given in the Swedish Chemical Society in Stockholm, where I had the honour of presenting your discoveries on October 27, 1955. I also demonstrated the polypropylene samples you had kindly sent me at that time.

My hearty congratulations to your outstanding work.

Sincerely yours

Bengt G. Rånby

December 4, 1958

Dr. B.G. Rånby
American Viscose Corp.,
Marcus Hook,
Pennsylvania

1155/mb

Dear Dr. Rånby,

Thank you very much for your kind letter of October 24 and for the enclosed copy of a lecture you delivered at the Swedish Chemical Society in Stockholm.

My best regards,

Yours very truly,

Prof. G. Natta

Ful

December 12, 1958

[illegible] Gates, Asst. Editor
Dept. of Chemistry
Univ. of Rochester
River Campus Station
Rochester 20, N.Y.

1321/mb

Dear Mr. Gates,

authors : Natta, Pino, [illegible], Bonati and [illegible]
[illegible] : [illegible] between [illegible] and Triisobutylaluminum.

[illegible] you very much for the information on the above work you were so kind to give me.

Yours very truly,

Prof. G. Natta

Am. Chem. Soc.

November 26, 1958

~~Mr. W. Albert Noyes, Jr.,~~
Editor Journal Am.Chem.Soc.,
Marshall Gates, Ass't,
Dept.of Chemistry
Univ.of Rochester
River Campus Station
Rochester 20, N.York

1197/mb

Dear Sir,

I have duly received your kind letter of the 5th inst., together with the reexamined text of our commu= nication : G. Natta, P. Pino, P. Longi and F. Bernardini, entitled "The reaction between styrene and triisobutylalu= minum".

I greatly appreciated the revision you have effected of the manuscript and we confirm you that, for the definitive text, it has been adopted the changes you were so kind to suggest us.

Only we effected some emendations, which we underlined with a pencil, with a view to enable you to ea= sily identify them and determine whether it has been pro= perly done.

At the end of the communication I would like to insert a note with our thanks to the Editor of the A.C.S.

Herewith you will find the suggested revision jointly with two copies of the paper itself in its definiti ve form.

With the best regards,

Very truly yours,

(Prof. G. Natta)

En/

Lettera da far firmare al prof. NATTA

Mr. W.Albert Noyes, Jr., Editor
J.A.C.S.
Marshall Gates, Ass't.Editor

[redacted]

Egregio Signore,

Abbiamo ricevuto la sua del 5 corrente con il testo rielaborato della nostra comunicazione G.Natta, P.Pino, G.Mazzanti, P.Longi e F.Bernardini "The reaction between styrene and triisobutylaluminum" .

Le siamo molto grati per la revisione del manoscritto da Lei fatta e le confermiamo che nella compilazione definitiva del lavoro ci siamo attenuti al testo da voi proposto.

Abbiamo solo fatto alcune correzioni che abbiamo sottolineato a matita perchè voi possiate individuarle facilmente e giudicare se sono state fatte nella forma dovuta.

Alla fine della comunicazione desidereremmo includere un ringraziamento all'Editore del J. of A.C.S.

Inviamo allegata alla presente la stesura del lavoro da voi proposta e due copie del lavoro stesso nella sua forma finale.

.....L....

prof. G.Natta

Sig.ne Bersani
Pongo Tradurre
Grazie

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

November 5, 1958

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

authors: Natta, Pino, Mazzanti, Longi and Bernardini
ms: The Reaction Between Styrene and Triisobutylaluminum

This manuscripthas now been reexamined and in addition we have asked a member of our staff to go over it with a view to revising the presentation and improving the English idiom. We are enclosing his revision of the manuscript. It seems to us that his changes have effected an improvement, and we suggest that you adopt his version or something very similar to it. We will give it proper attention on its return.

Please submit the revised manuscript in duplicate.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG R

Encls. ms. orig. (revision)
suggested revision
rpt. Ref. I(2)

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

August 13, 1958

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

authors: Natta, Pino, Mazzanti, Longi and Bernardini
ms: The Reaction between Styrene and Triisobutylaluminum

This manuscript has been examined with the aid of a report from an independent referee. We are enclosing a copy of his comments.

We shall be glad to accept the manuscript for publication subject only to your consideration of the referee's suggestions. We shall be happy to go over the manuscript on its return with a view to improving the English idiom where necessary.

Please send us duplicate copies of any retyped portions of the revised manuscript.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG M

Encls. ms. orig.
rpt. Ref. I

TITLE: The Reaction between Styrene and Triisobutylaluminum

COMMENTS: While the subject matter of this paper is timely, it would be helpful for the authors to be a little more specific about the purpose of the investigation--that is, to shed light on the mechanism of the catalytic effect of aluminum alkyls on styrene.

The organization of the subject matter is poor. There is considerable duplication and restatement. The whole paper could be condensed considerably without any loss of pertinent detail. In fact, it is suggested that a condensed version of this paper be submitted as a note, rather than as a complete paper. It is felt that there is much to be done in this investigation before it can be considered complete. However, the data included in the present paper are valuable and should be published. A more positive statement of what the authors are seeking to determine, as well as the conclusions reached by them, would be very desirable.

It is obvious the manuscript was written by someone not too familiar with the English language and idiom. It should be carefully edited and corrected for spelling, grammar, and form. Sentence structure in certain instances renders the meaning very obscure. It is believed that by such editing the whole paper can be shortened, much repetition eliminated, and would generally result in a more readable manuscript.

More specifically, a list is given below of some of the suggested changes which, it is believed, would improve the manuscript.

The term "tri-phenylethylaluminum" should read "tris(phenylethyl)-aluminum" to be more exact.

On page 2, under equation 1, the term "alkaline metals" should be more specific, i.e. either "alkali metals" or alkaline earth metals."

In the caption under TableI, the term "triphenylaluminum" should read "tris(phenylethyl)aluminum.

M. Gates, Asst. Editor
Dept. of Chemistry
Univ. of Rochester
River Campus Station
Rochester 20, N. Y., USA

ROCHESTER
DEC 3
7 30 PM
1958

AIR MAIL
10¢
U.S. POSTAGE

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, ITALY

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

MILANO
6
1958

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

December 2, 1958

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

authors: Natta, Pino, Mazzanti, Longi and Bernardini
ms: The Reaction between Styrene and Triisobutylaluminum

We have now reexamined this manuscript and have dispatched it to the printers. It should appear in one of our April 1959 numbers.

We have, however, deleted the acknowledgement to the editor of this Journal since this type of revision and editing is quite routine and does not call for a special acknowledgement. We hope this deletion will meet with your approval.

Sincerely yours,

Marshall Gates

MG M

Marshall Gates
Assistant Editor

W ALBERT NOYES JR EDITOR
DEPT OF CHEMISTRY
UNIV OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20 NEW YORK USA

ROCHESTER JUL 17 1958 N. Y.

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

NO TAPE OR STICKER MAY BE ATTACHED
IF ANYTHING IS ENCLOSED THIS LETTER
WILL BE SENT BY ORDINARY MAIL

Ricordo della casa
ALLA MOSTRA
D'OLTREMARE
1958
NAPOLI

MILANO FERR. DISTRIBUZIONI 7-8 15 VII 1958

FIRST FOLD

SECOND FOLD

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

July 10, 1958

Dr. Giulio Natta
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

We have received your manuscript entitled "The Reaction between Styrene and Triisobutylaluminum" and will inform you of our decision regarding it as soon as possible.

Please send us a duplicate copies of this manuscript for use in refereeing.

Very sincerely yours,

W. Albert Noyes, Jr.
Editor

M

Per favore 10 copie
Mazzanti deve dare la copia

IF YOU CANNOT RETURN THIS MANUSCRIPT WITH COMMENT IN TWO WEEKS, PLEASE RETURN IT IMMEDIATELY WITHOUT COMMENT

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

PLEASE RETURN SIGNED ORIGINAL AND ONE ANONYMOUS CARBON

COMMENTS OF REFEREE I

AUTHOR: Natta, Mazzanti, Longi and Bernardini

TITLE: COMM ED: Isotactic Polymers of Silicon-Containing ....

COMMENTS:

According to this manuscript, Professor Natta and co-workers have succeeded in extending the isotactic polymerization scheme to monomers containing silicon in the side chain. The significance of the result is considerably diminished by other advances in this field which make it clear that the isotactic scheme has wide applicability.

I do not feel that the achievement described is of singular significance now, although it would have been one year ago.

In my opinion the manuscript does not meet the special requirements of timeliness and significance by which Communications for the JACS are judged.

W ALBERT NOYES JR EDITOR
DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
ROCHESTER
NEW YORK USA

ROCHESTER
7 30 PM
6 1958
N. Y.

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

PROFESSOR G NATTA
ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI 32
MILAN ITALY

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

April 9, 1958

Dr. G. Natta
Instituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Dr. Natta:

Your organic Communication entitled "Isotactic Polymers of Silicon-Containing Vinyl Monomers" has been received. We shall write you regarding our decision as soon as possible.

Sincerely yours,

Marzari et. al.

W. Albert Noyes, Jr.
Editor

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. Albert Noyes, Jr., *Editor*
Marshall Gates, *Ass't. Editor*

Department of Chemistry
University of Rochester
River Campus Station
Rochester 20, New York

June 24, 1958

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Please excuse me for not answering your letter sooner, but I wished first to discuss the matter with Dr. Gates. He was in the hospital and then convalescing for several weeks.

We agree that often Americans are not so familiar as they should be with work of their European colleagues. For this reason we are very happy to publish articles and Communications to the Editor from chemists anywhere in the world. We feel merely that we should apply the same standards to them as we do to Americans.

Communications to the Editor are always difficult to handle. We cannot afford the space to publish all work twice, first as a Communications to the Editor and again as articles. For this reason we stress the element of timeliness for Communications. Thus we ask the question whether the immediate publication would be of such value to chemistry as to warrant haste. You can appreciate that few pieces of research meet this test, but on the other hand, positive judgement on this matter if often difficult. Many times there is room for legitimate difference of opinion.

Thus we are happy to publish Communications to the Editor from Europe if the work is very significant but not otherwise. The same referee who recommended against publication of your last Communication is the same one who had recommended favorably in previous cases.

Americans have a very high regard for your work, and we do hope you will continue to send us Communications to the Editor when you have something particularly interesting to report.

With Very best personal regards.

Very sincerely yours,

W. Albert Noyes, Jr.

W. Albert Noyes, Jr.
Editor

WAN P

cc: Dr. Gates, Dr. Cope, Mr. Emery

JOURNAL OF THE ~~AMERICAN CHEMICAL~~ SOCIETY

W. Albert Noyes, Jr., *Editor*
Marshall Gates, *Ass't. Editor*

Department of Chemistry
University of Rochester
River Campus Station
Rochester 20, New York

April 22, 1958

Dr. G. Natta
Istituto di Chimica Industriale
del Politechnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

authors: Natta, Mazzanti, Longi and Bernardini
ms: Isotactic Polymers of Silicon-Containing Vinyl Monomers

This manuscript has been examined with the aid of a report from an independent referee who is also a member of our Editorial Board. We are enclosing a copy of his comments.

On the basis of his comments and our own examination we are sorry to say we do not think the manuscript meets the special requirements of timeliness and significance established for Communications to the Editor, and we are returning it herewith. We should, of course, be happy to consider a detailed account of this work for publication as a definitive article.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG M

Encls. ms. orig.
rpt. Ref. I

On pages 3 and 9 "nichel" should be "nickel."

Page 6, line 11, "The values. . . . . " This sentence is very awkward and should be improved. If what is said here is true, then Table II is worthless. It adds nothing to the data given in Table I except uncertainty. The data in these tables should be combined to shorten the paper.

Table II. Displacement reaction, not "deplacement."

Page 8, line 10. "To the higher addition rate. . . . ." This sentence is awkward and should be rewritten.

Table III contains either too much or too little information. The ratio in the last column cannot be calculated from the table because the yield of 2-phenylethanol is not given. Oxidation is not complete (for Exp. No. 3 it was 87%, calc'd from Experimental, p. 16) (for Exp. 1, it is 93%). Either the moles of 2-phenylethanol should be listed or the moles of 1-phenylethanol and acetophenone should be omitted. There seems to be no need for listing the moles of Et_3Al used as solvent. The figure 0.0107 under 1-phenylethanol should be 0.0097 (calc'd from p. 16).

Page 15, line 3 from bottom. "Tris(α-pheneltryl)aluminum etherate" instead of "1-phenylethylaluminum etherate."

Page 16 line 4. ". . . .a solution of 1-phenylethyletherate. . . ." probably means ". . . .a solution of tris(α-phenethyl)aluminum etherate. ."

Summing up, the manuscript should be extensively revised, probably rewritten, to put it into a more concise and readable form. It is rather a contribution to a better understanding of the subject matter than a completed investigation; and consequently, may be more suitable in the form of a note rather than a completed paper.

July 15, 1958

W. Albert Noyes Jr.,
Editor
Journal of the American Chem. Soc.,
c/o Dept. of Chemistry
Univ. of Rochester
Rochester 20, N.Y.

Our. ref. 855/mb

Dear Dr. Noyes,

I have duly received you letter of July 10 and following to your request, I am sending you, herewith, a duplicate copie of the manuscript entitled : "The reaction between styrene and Triisobutylaluminum".

With best regards,

Yours sincerely,
G. Natta

Encl/

July 2, 1958

Mr. W. Albert NOYES
Journal of the American
Chemical Society
c/o Department of Chemistry
University of Rochester
ROCHESTER, 20 - N.Y.

Ref.n.782/el

Dear Mr. Noyes,

I am sending to you, enclosed, a paper:
"The reaction between styrene and triisobutylaluminium"
that I would like to publish on the Journal of the American Chemical Society.

I should be extremely grateful to you if you might charge some of your staff to revise the English form of our paper in order to avoid bad grammar or unusual wording, that will be probably included in our manuscript.

Looking forward to having your comments on our paper, I send you my best regards.

Sincerely yours,

Giulio Natta

Encl./manuscript.

Rec.

July 1, 1958

Dr. W. Albert NOYES
Journal of the American Chemical Society
c/o Department of Chemistry
University of Rochester

ROCHESTER, 20 - N.Y.

Ref.n.782/el

Dear Mr. Noyes,

many thanks for your kind letter of June 24, 1958. I well understand the difficulties you meet in publishing Communications to the Editor and how difficult to give a positive judgement on the utility of the immediate publications and how different may be opinions.

I shall send shortly some other papers on the works carried out in my Institute for their publication on your Journal.

With best regards,

Sincerely yours,

G.Natta

Ger.

May 6, 1958

Mr. W. Albert Noyes, Jr., Editor
J. American Chemical Society
University of Rochester - Dept. Che
River Campus Station
ROCHESTER 20 - N.Y. - U.S.A.

Ref. No. 541/rl

Dear Mr. Noyes,

on March 20, 1958, I sent you a manuscript to be publishe as a letter to the Editor, entitled : Isotactic Polymers of Silicon-Containing Vinyl Monomers, by G. Natta, G. Mazzanti, P. Longi, F. Bernardini. It described the first high molecular weight polymers of vinyl-xylanes and the first isotactic polymers containing silicon.

I received a letter from Mr. Gates, in which he informs me that your referee did not consider our manuscript sufficiently interesting to be accepted as a Communication to the Editor, and invites me to publish a definitive article on the same subject. I am sorry not to be able to accept this last invitation; in fact, we generally publish detailed arti only on European Journals, owing to our poor knowledge of English and th difficulty to find translaters into English very experienced in a specif technical subjects.

I remarked, in several cases, that many American chemists do n know at all the works published in Europe, and in particular those writt not in English. I thought useful, therefore, to send for publisation to American Journals, like that of the American Chemical Society, as lette to the Editor, the first news of the more interesting works of my Scho, which will be later published more extensively on European Journals.

I am of opinion that, if such systems were followed by many European Institutes, without finding, as in our recent case, too grea difficulties from your referees or from the members of your Editorial Board, it would contribute to increase the knowledge of the American chemists in the field of the researches carried out abroad of the United States.

With my best regards, I am,

Sincerely yours,

Giulio Natta

RECEIVED
APR 8 1958

ISOTACTIC POLYMERS OF SILICON-CONTAINING VINYL MONOMERS

Sir,

The polymerizations of silicon-containing vinyl monomers by means of the old conventional processes yield only low molecular weight polymers.

In fact such monomers with radicalic initiators, even if very high pressures in the range of 5000 at are employed, yield only low polymers, for instance, tetramers or hexamers (1). Similarly, with cationic catalysts only liquid oily polymers were obtained from allyl-trimethyl-silane (2).

We have now prepared for the first time high molecular weight polymers from monomers containing one vinylic unsaturation and one silicon atom, by using heterogeneous catalysts acting according to a mechanism of coordinated anionic catalysis. Such polymers contain linear, head-to-tail macromolecules having regular structure, which are crystallizable.

For instance when polymerizing allyl-silanes in heptane solution at a temperature of 70-80°C in the presence of catalysts of the Ziegler type, prepared by reaction of triethyl-aluminum with Titanium Tetra-chloride (mols. $Al(C_2H_5)_3$/mols. $TiCl_4$ = about 2) crude polymers having high molecular weight were obtained with good conversion yields. The crude polymer obtained from allylsilane $H_3Si-CH_2-CH=CH_2$ is highly crystalline and melts completely at 127°C, near to the melting point of polybutene-1 (3).

The crude polymers obtained from allyltrimetilsilane have a silicon content of 24,35% (calculated for $(C_6H_{14}Si)_n$: Si 24,56) and an intrinsic viscosity in tetraline at 135°C of about 0,5. They were fractionated by extraction with solvents, employed at their boiling

point, in the following sequence : acetone, ether, n-heptane, xylene.

In table I the results of fractionation are reported, as well as some physical properties of the several resulting fractions.

Fractions III and IV prove to be crystalline under λ-rays and possess higher specific gravity and lower solubility than the corresponding fractions I and II, which are amorphous.

As we have previously found for the crystalline fractions and for the amorphous, non crystallizable fractions of poly-alpha-olefins, the solubility of the different fractions depends mainly on their steric structure (4).

The highly crystalline fractions possess a very high melting point (350-360°C), and can be extruded, in the melted state, in filaments and then stretched.

The fiber-spectrum at λ-rays agree with a helic structure with a ternary simmetry, and an identity period of 6,5 Å of the chain, attributable to an isotactic structure.

The fractions possessing higher solubility, show lower crystallinity, lower spec. gravity and lower melting points than those of the highly crystalline isotactic polymers.

The very low melting point of some fractions may depend not only from the lower molecular weight, but also from the presence of sterical irregularities along the chains (stereoblock-polymers).

Giulio Natta
Giorgio Mazzanti
Paolo Longi
Francesco Bernardini

RECEIVED APR 3 1958

Milano - Istituto di Chimica Industriale
del Politecnico -

March 20, 1958

Mr. W. Albert Noyes, Jr.
Editor of the Journal of the
American Chemical Society
ROCHESTER 20 -: N.Y. - U.S.A.

Dear Mr. Noyes,

I am sending you, enclosed, a brief manuscript on the isotactic polymers of silicon-containing vinyl monomers.

I should be grateful to you if you can publish it as a Communication to the Editor in the Journal of the American Chemical Society.

With best regards.

Sincerely yours,

(Prof. G. Natta)

Encl/

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

Champoluc, ~~Milano~~, September 6, 1958

TELEF. 292.125 - 292.126 - 292.101 - 292.102 - 292.103

Archives of Biochemistry and
biophysics
Editorial Office
III Fifth Avenue,
New York 3
N.Y.

940/mb

Dear Sirs,

This will acknowledge the good receipt of your letter of August 21 and I regret having to inform you that I must decline your kind invitation to prepare a succinct review of "The kinetics of Vinyl Polymerization by Radical Mechanisms" by H. Bamford, W.G. Barb, A.D. Jenkins and P.F. Onyon, for your interesting Review, giving the fact that I have so many engagements to comply with and I find myself in the impossibility to take over such a work.

Sincerely yours,

Prof.G. Natta

ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS

EDITORIAL OFFICE: 111 FIFTH AVENUE, NEW YORK 3, NEW YORK

ACADEMIC PRESS INC.
PUBLISHERS
111 FIFTH AVENUE
NEW YORK 3, NEW YORK
OREGON 7-6713

August 21, 1958

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Milano, Italy

Dear Professor Natta:

May we inquire whether you would care to prepare a succinct review of "The Kinetics of Vinyl Polymerization by Radical Mechanisms," by G. H. Bamford, W. G. Barb, A. D. Jenkins, and P. F. Onyon, for ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS.

Upon receipt of your affirmative reply, we shall be pleased to forward the review copy to you.

Sincerely yours,

EDITORIAL OFFICE

Laura Henderson

Secretary

LH/a

America
(sotto dir. Cyanamid)

26 Giugno 1958

Egr.Ing.Piero Giustiniani

Amministratore Delegato
Società Montecatini

Rif.N.741/rl

S e d e

Caro Ingegnere,

con riferimento alla Sua lettera del 17 u.s., Le invio una relazione su alcune prove, eseguite qui dal Dr.Sianesi, sulla polimerizzazione del campione di monometilstirolo inviato a suo tempo dalla Cyanamid.

A causa della presenza di diversi isomeri e della loro diversa velocità di polimerizzazione, i prodotti ottenuti risultano eterogenei e presentano proprietà che dipendono dalle condizioni di polimerizzazione ed in particolare dalla resa di conversione.

Poichè il para-metilstirolo, che fornisce un polimero amorfo, rappresenta circa i 2/3 degli isomeri presenti nella miscela,ne consegue che si può osservare una piccola cristallinità soltanto per alte conversioni, ossia quando, essendo polimerizzato gran parte del para-metilstirolo, la miscela risulta arricchita in orto-metilstirolo.

Da nostre prove precedenti era risultato che l'orto-metilstirolo, pur polimerizzando con maggiore lentezza, fornisce polimeri cristallini, più alto fondenti del polistirolo isotattico e capaci di cristallizzare rapidamente.

Ritengo perciò che si possa concludere che una miscela di isomeri, quale il campione avuto dalla Cyanamid, presenta scarso interesse per la produzione di polimeri,isotattici.

Permane sempre notevole l'interesse per l'orto-metilstirolo, nel caso che esso possa venire preparato ad una purezza maggiore del 50-60%.

Desidero informarLa che nella relazione allegata, tutto quanto si riferisce ai catalizzatori ed alle condizioni di polimerizzazione è già coperto da brevetti di circa due anni fa, e che quindi penso, se BREV è d'accordo, che si possa inviare alla Cyanamid copia di tale relazione, che comprende soltanto una parte delle prove fatte.

L'unica novità non brevettata che può trasparire dalla relazione è che si possano preparare polimeri cristallini non soltanto dall'orto-metil stirolo puro ma anche da miscele arricchite.

Cordiali saluti.

Giulio Natta

All/

"MONTECATINI"
SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

AMMINISTRATORE DELEGATO

G/fp

Telegrammi GABBRO MILANO
Telefono 6333
Telefoni interurbani chiedere GABBRO MILANO
SEDE MILANO
Via F.Turati, 18

Milano, 17 giugno 1958

Caro Natta,

un anno fa circa feci mandare presso i Suoi Laboratori del Politecnico un fusto di metilstirolo monomero dell'American Cyanamid perchè fosse sottoposto a prove di polimerizzazione .

La prego di comunicarmi che cosa è stato fatto in proposito e se le eventuali conclusioni della sperimentazione sono state rimesse alla Cyanamid.

Cordiali saluti.

Egregio Signor
Prof. Giulio Natta
Milano

Rispondere mercoledì 24 p.

Ann Bashford

Dec. 31, 1958

Dear Professor Natta:

Many thanks for your kind and most original Holiday Greeting! I am sure that of the coming year — and those that follow — do have some measure of good bounty about them, a share in that happy fortune will be due to you and your colleagues.

I trust that you and Mrs. Natta will have a most happy and satisfying year.

Sincerely,

Arthur Weinberg

56 Thayer Drive
Eatontown, N.J.
USA.

Basford

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

December 12, 1958

Dr. Bartolomeo Orsoni
Direttore Settore Progetti e Studi
Montecatini
Via Turati 18
Milan, Italy

18.DIC.1958

Dear Dr. Orsoni:

I trust that you had a pleasant return to Milan and that you are now comfortably caught up with a good share of your work.

Your efforts with the press here in this country have already borne fruit: I enclose a story taken from the front page of the Wall Street Journal, and the story from Chemical Week. Both (in our opinion) are highly favorable to Montecatini.

The attention given you by both publications should go far to dispel any lingering doubts anyone at Montecatini has as to the willingness of the American press to cooperate and to present news justly and fairly. The editors of Chemical Week (a McGraw Hill Publication) went to great extremes to hold their pages an change their copy so that it would be acceptable and precise. I believe this is directly due to our own excellent reputation with them and the very fine impression you yourself made.

I did enjoy working with you so closely during the last few days, and may I say that I much appreciate your patience and understanding of the problems involved.

With luck, perhaps I shall see you in Milan in April.

Sincerely,

Arthur Weinberg

Dr. Arthur M. Weinberg
Account Group Manager

AMW:km
Enc's.

cc: Dr. M. Ottolenghi, Dr. R. Pirani
Col. H. Toulmin Dr. G. DeVarda
L. Lucini Dr. E. Serpieri
J. Sasso

June 19, 1958

Ref.n.719/el

Dr. Arthur M. WEINBERG
Account Group Manager
Public Relations Dept.
G.M.BASFORD COMPANY
60, East 42nd Street
NEW YORK, 17 - N.Y. - U.S.A.

Dear Dr. Weinberg,

I want to thank you very much for sending to me the additional copies of my photographes; their size is in fact what I liked.

With the best personal regards, I am,

Sincerely yours,

G.Natta

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

May 29, 1958

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32,
Milano, ITALY

Dear Professor Natta:

I'm pleased that you liked the photographs and enclose herewith the additional copies that you requested. I trust that this smaller size is what you had in mind, and that these were the photographs that you prefer.

If not, please do not hesitate to ask for others; I can supply them to you in any size you require.

Incidentally, it may interest you to know that I showed the entire series to the editor of INDUSTRIAL DESIGN. He liked them so much that he is seriously considering publishing them in an early issue together with some statements from you regarding the future of the new synthetics and their significance (and the significance of basic chemical research) to the techniques and culture of tomorrow. I must think a little more about the kind of statement he desires, and consider it in the light of the talk that you made in Montreal.

Once we have the kind of statement he would like, we can then send it to you through Dr. Orsoni and receive in return your own thoughts.

Cordially,

Arthur M. Weinberg

Dr. Arthur M. Weinberg
Account Group Manager
Public Relations Dept.

AMW:br
encls.
cc: Mr. Lucini, Dr. Orsoni, Dr. Serpieri
Mr. Sasso, Mr. Walsh

NEW YORK • CLEVELAND

Gen

May 20, 1958

Dr. Arthur M. WEINBERG
Account Group Manager
Public Relations Dept.
G.M.Basford Company
60 East 42nd Street
NEW YORK 17 - N.Y. - U.S.A.

Ref.No.605/rl

Dear Mr.Weinberg,

I wish to thank you for your kind letter of May 12, 1958 and for the set of the pictures you took during my stay in New York. I am pleased of them, and I would like to have additional prints, i.e. (807 RI) :

# 5	6 copies
# 6	3 copies
# 12	3 copies

eventually smaller

Thanking you in advance, I send you my best regards.

Sincerely,

(Prof. G.Natta)

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

May 12, 1958

Professor Guilio Natta
Polytechnic Institute of Milan
Milano, ITALY

Dear Professor Natta:

Enclosed you will find a set of the pictures you were kind enough to let me take while you were here in New York; I'm rather pleased with them and hope you will be too. If you would like additional prints, I shall be happy to oblige.

May I thank you once again for your courtesy.

Sincerely,

Arthur M. Weinberg

Dr. Arthur M. Weinberg
Account Group Manager
Public Relations Dept.

AMW:br
encls.
cc: L. Lucini

G. Lenon
Virginia

Copia: Sig. Prof. Natta

January 16th,1958.

Dr.
Arthur M.Weinberg
Account Group Manager
G.M.Basford Co.
60, East 42nd Street
New York 17, N.Y. (USA)

USA

ESSE/gc

Re: Professor Natta's Fellowship.

Dear Dr. Weinberg,

On December 20th we had informed Mr. Toulmin, yourselves and Chemore that Prof. Natta was recently awarded by the New York Academy of Science a "Fellowship" in recognition of his merits in Science.

Please note that our first statement was not completely correct since it seems that other Italian scientists have previously received the same honor.

However, we think that within our Public Relation program you could give to this event consideration and diffusion.

We ask you, therefore, kindly to contact Mr. Toulmin on this matter and to select together the best action in view of Prof.Natta's visit to the United States, planned for April next.

You will, of course, keep informed of your steps Mr. Lucini and ourselves.

Copies of the original letter and certificate are enclosed.

Cordially,
"M O N T E C A T I N I"
Fto: Desoni Pirani

2 encls.

Copy to Mr. Lucini - New York
" " Mr. Toulmin - Dayton.

January 7, 1958

Ref. N. 21/rl

Dr. F. BASOLO
Department of Chemistry
Northwestern University
EVANSTON - Ill. - U.S.A.

Dear Dr. Basolo,

Coming back from a travel abroad, I have found your letter of December 16, 1957, in which you asked me for my permission to use Fig. 16 from the paper I presented in Roma, at the International Meeting on Coordination Chemistry.

I wish to inform you that I have no objection to make in this regard, and therefore you may publish that figure, with proper acknowledgement.

With best wishes,

Sincerely yours,

G. Natta

F. Basolo
Department of Chemistry
Northwestern University
Evanston, Illinois, U.S.A.

AIR LETTER
AÉROGRAMME

Professor G. Natta
Istituto Chimica Industriale
Politecnico Milano
Milano, ITALIA

VIA AIRMAIL
PAR AVION

FIRST FOLD

NO TAPE OR STICKER MAY BE ATTACHED
IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT BY ORDINARY MAIL

Closed F. Basolo

Northwestern University
Department of Chemistry
Evanston, Illinois
December 10, 1971

Professor G. Natta
Istituto Chimica Industriale
Politecnico Milano
Milano, ITALY

Dear Professor Natta:

Professor Pearson I has asked me to thank you for your letter of October 18, 1971. It was very kind of you to send us an abstract of your work on the mechanism of the substitution reactions of platinum(II) complexes. Unfortunately we have no reprints of this work available at present, but we will be sending you a copy of our forthcoming paper as soon as it appears in the Journal of the American Chemical Society.

Sincerely yours,

F. Basolo

WM:ET

SECOND FOLD

Department of Chemistry
Northwestern University
Evanston, Illinois
December 16, 1957

ISTITUTO DI CHIMICA
INDUSTRIALE DEL POLITECNICO
* 28 DIC 1957 *
R

Professor G. Natta
Istituto Chimica Industriale
Politecnico Milano
Milano, Italia

Dear Professor Natta:

Professor Pearson and I are writing a book entitled "Mechanisms of Inorganic Reactions." chapter on catalysis discuss briefly your on stereospecific polymerization.

I should like to ask your permission, with proper acknowledgment, to use Fig. 16, from the paper that you presented at the International Meeting on Coordination Chemistry in Rome, September, 1957.

Grazie e buono Natale!

Sincerely yours,

F. Basolo

FB:mw

AIR LETTER
AEROGRAMME

Prof. F. Basolo
Department of Chemistry
Northwestern University
Evanston, Illinois, U.S.A.

Professor G. Natta
Istituto Chimica Industriale
Politecnico Milano
Milano, ITALIA

NO TAPE OR STICKER MAY BE ATTACHED
IF ANYTHING IS ENCLOSED, THIS AIRGRAM
WILL BE SENT BY ORDINARY MAIL

FIRST FOLD

SECOND FOLD

Ans.

May 7, 1958

Prof. R. N. BOYD
Department of Chemistry
New York University
NEW YORK CITY - N.Y. - U.S.A.

Ref. No. 566/rl

Dear Professor Boyd,

I did hope to have the pleasure to meet you during my stay in the United States, and I regret very much not to have had such opportunity. I wish to thank you very much for your kind letter of April 15, and for having nominated me for election as Fellow of the New York Academy of Sciences. I appreciated very much this honour.

I hope to have soon another occasion to meet you, and in the meantime, I send you my kindest regards.

Very sincerely yours,

Giulio Natta

AMERICAN CHEMICAL SOCIETY

MESSAGE

To: Professor Giulio Natta Date April 15, 1958

City or Company: Time

From: R. N. Boyd, Dept. of Chemistry
New York University, New York City

Address

Telephone No. SPring 7-2000 Ext. 595

Sorry I couldn't reach you after your talk this morning. I thought you might be pleased to know that you are going to be quoted (the Scientific American article) in a new organic textbook (by Morrison and Boyd) scheduled for publication in January. You and Pauling are the only ones so honored.

I was the one, incidentally, who nominated you for election as Fellow of the New York Academy of Sciences.

I hope you enjoy your stay in the United States.

Signed R. N. Boyd

DELIVERY OF THIS MESSAGE IS NOT GUARANTEED

If not called for by noon of the final meeting day it will be destroyed.

(Over)

Am

December 23, 1958

Dr. W.H. Shiffler
California Research Corp.,
200 Bush Street
San Francisco 20
California

1359/mb

Dear Mr. Shillfer,

Only to thank you for the sample of diisopropyl benzene you were so kind to send me and which I received in good order.

With my best regards,

Yours very truly,

Prof. G.Natta

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET · SAN FRANCISCO 20 · CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

December 11, 1958

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

The ten kilograms of diisopropyl benzene mentioned in my letter to you of November 10, 1958, was shipped to you by air freight leaving San Francisco on December 4.

Please let us know if this shipment is not received in good order.

With best regards.

Very truly yours,

W H Shiffler
JAR

Response

California file

March 11, 1958

Mr. W. H. SHIFFLER, Vice President
CALIFORNIA RESEARCH CORPORATION
200 Bush Street
SAN FRANCISCO 20 - California

Ref. No. 388/rl

Dear Mr. Shiffler,

during the past years, we studied in our Institute the peroxidation of methylcyclopentane, that did not lead to results of particular interest, from a practical point of view.

We think, however, that the hydroperoxidation of compounds having two or more tertiary carbon atoms will be more interesting, because of their possible uses as crosslinking agents; in some instances, these can lead to more useful results than the high energy radiations to crosslink high molecular chains.

I should be very grateful, therefore, if you may send to us samples of dimethylcyclopentane, dimethylcyclohexane, or trimethylcyclohexane, or some of other hydrocarbons of the same kind, or their mixtures, of which you believe that U.S. petroleum Industry may dispose. They may susbstitute the diisopropylbenzene, if some of these products, as I believe, will be cheaper.

Awaiting your kind reply, I remain,

Sincerely yours,

G. Natta

estratto J. A.C.S. 61, 360 (1957)
(autossidazione di 1,4-dimetilcicloesano)
al Dr Beati

Meeting ACS
w'n'65

February 26, 1958

Mr. W.H. Shiffler, Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20- California

sf.No.152/rl

Dear Mr. Shiffler,

many thanks for your kind letter of January 20, and for your kindness in sending to us the reimbursement for the researches carried out in this Institute for the California Research Corporation, during 1956-57.

I wish to confirm you that I shall attend the A.C.S. Meeting in San Francisco. I shall come to California on April 7, arriving to Berkeley, where I have been invited by Prof. Calvin to give a lecture at the California University. I shall stay in Berkeley till April 12 at the Claremont Hotel.

During the A.C.S. Meeting I shall present two conferences, on April 15 and 16. Probably I shall be able to visit you on April 17 or 18, but I think it should be better during the week before the Meeting (f.i. on April 9), as I believe that, during the Meeting, you and your people will be engaged with the Congress. Eventually, I could anticipate my leaving from Milan before the Easter, and therefore come to San Francisco at the end of the week before Easter, and so I may visit you during the first days after Easter.

After the Meeting I shall leave California to Canada, to attend the Canada-U.S. Chemical Engineering Conference in Montreal, and present a conference, on April 20.

As I do not know San Francisco, I should be very grateful if you may conseil to me a Hotel in San Francisco, and whether it is necessary to book now a double-bedded room from April 12 till April 19. Please excuse this trouble.

Looking forward to seeing you in San Francisco, and thanking again for your kindness, I send you my best personal regards.

Sincerely yours,

G. Natta

Am

January 9, 1958

Mr. W. SHIFFLER, Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Ref. No. 32/rl

ar Mr. Shiffler,

I want to inform you that we are completing the study on cry allization kinetics of your MXDA. As I told you in another letter, this udy has been made by densimetry and it has needed to set up a very difficult perimantal method.

The results, we obtained till now, show in particular, that the lue we first attributed to the period along the c axis of unit cells of lymer is too high. We performed our calculations from the position of flections on higher layers of X-ray photographs. In fact we found minor lues in correspondence to lower layers. Apparent anomalies of this type have en already met in other cases and they may be attributed to the very limit- dimensions of crystals along the c axis. We performed also measurenments polymer obtained from sebacic acid, and the comperison with the polymer tained fromaadipic acid was very useful.

As soon as out study on the kinetics of crystallization is finish-, I shall send you a detailed report.

In these last months, according to your letter of October 30, 1957, looked for assuming a new doctor who is experienced in the field of X-ray d can carry out the study of MXDA during an entire year. Only at present found a chemist as we wanted.

I send you, enclosed, the list of our expenses and of the rewards r the people working in this field, during last 15 months. These expenses e rather limited because of temporary suspensions of work, due to the lack experienced people, free from other engagements.

With kindest regards and best wishes for an Happy New Year, I am,

Sincerely yours,

(G. Natta)

January 9, 1958

Mr. W. H. SHIEFLER, Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Ref. No. 32/rl

Invoice for researches carried out for the California Research Corporation during 1956-1957

Supplies, equipment, mechanical workshop	lit.	535.000	$	860
Graduate Chemists (rewards)	lit.	360.000	$	575
Undergraduate Chemists (rewards)	lit.	490.000	$	785
Overhead expenses (70% of chemist's rewards)	lit.	590.000	$	950
	lit.	1.975.000	$	3170

March 20, 1958

Ref.No.434/rl

Mr.W.H.Shiffler, Vice President
CALIFORNIA RESEARCH CORPORATION
200 Bush Street
SAN FRANCISCO 20 - California

Dear Mr.Shiffler,

Following up my letter of March 12, I wish to inform you that, due to unforeseen circumstances, I had to change a little my travel schedule. I shall arrive to Washington at the end of March; then Mrs.Natta and I will make a short tourist trip before arriving to Berkeley on April 8, where we shall stay at the Claremont Hotel. I should be very grateful to you if you may confirm a hotel reservation, for Mrs.Natta and I, for the period from April 13 to 18 in San Francisco. I do regret to trouble so much you. Please excuse me.

As to my visit to Richmond, I think it is better on April 9; in any way, I shall inform you by table from Washington about the exact date.

Thanking you for all your kindness, I send you my best personal regards.

Very sincerely yours,

Giulio Natta

Meeting ACS minutes

March 12, 1958

Mr. W.H. Shiffler, Vice President
CALIFORNIA RESEARCH CORPORATION
200 Bush Street
SAN FRANCISCO 20 - California

Ref. No. 382/rl

Dear Mr. Shiffler,

many thanks for your very kind letter of March 5 (FILE 170.81). → Pr

I wish to inform you that many friends of mine have proposed to me to anticipate my leaving Milan so that I may rest some days after my arrival to San Francisco, as after the flying through polar line one would arrive very tired. Therefore, I have decided to leave on April 3 from Paris, and to arrive to San Francisco on April 4. I should be grateful if you may make a reservation in my name at the Hotel in San Francisco for the period April 4-8 inclusive (for a double room).

Furthermore, as I shall have to give a lecture on April 10 at the California University in Berkeley, I would ask you if it possible to anticipate my visit to Richmond on April 8.

Thnaking you in advance, and looking forward to seeing you, I remain,

Very sincerely yours,

Giulio Natta

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

March 5, 1958

FILE 170.81

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

We are pleased to learn from your letter of February 26, 1958, that you plan to be in San Francisco in April to attend the American Chemical Society meeting. Your suggestion of visiting with us on April 9 prior to the ACS meeting is convenient for us. If agreeable to you, we would like to have you meet with our technical personnel in Richmond and give a short lecture to the group.

We have made a reservation in your name at the Mark Hopkins Hotel in San Francisco for the period April 12-19, inclusive. The reservation is for a double room with twin beds.

Check do 13-18

We are looking forward to seeing you in San Francisco, and will get in touch with you at the Claremont Hotel early in the week of April 7 to arrange for your visit with us. Please feel free to let us know if we can be of any assistance to you during your stay.

With best regards.

Yours very truly,

W H Shiffler

Ann.

May 20, 1958

Mr. W.H. SHIFFLER, Vice President
CALIFORNIA RESEARCH CORPORATION
200 Bush Street
San Francisco 20 - California

Ref. No. 610/rl

Dear Mr. Shiffler,

many thanks for your kind letter of May 15, that crossed my own of May 14, and for your sending to us of the sample fo 4-methyl-1-pentene. Although the small size of this sample, I hope to be possible to confirm, also for your, product, the possibility to get high tenacity fibers. The Terni Fiber Laboratory will examine also the properties of the obtained fibers. I informed Mr. Giustiniani also about the proposal to send a greater sample directly to the Montecatini, which will polymerise it in the pilot plant in Terni.

Many thanks also for sending diisopropylbenzene sample.

I wish again to thank Mrs. Shiffler and you for all your kindnesses during our stay in California. With my kindest regards, I remain,

Sincerely yours,

G. Natta

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

May 15, 1958

W. H. SHIFFLER
VICE-PRESIDENT

FILE 170.81 Milan

Professor Guilio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

The sample of 4-methyl-1-pentene we spoke of during your visit to California was shipped to you by air freight on May 12, 1958. I must apologize for the small size of the sample (800 gm.)

The 4-methyl-1-pentene sample does not contain an oxidation inhibitor. It has the following composition:

	Wt. %
4-methyl-1-pentene	92.1
4-methyl-2-pentene	7.2
2-methyl-2-pentene	-
1-hexene	0.5
2- and 3-hexenes	-

This sample has a lower 4-methyl-1-pentene content than is typical for our process, but it still appears to polymerize well. We shall look forward to hearing your comments on this monomer and its polymer.

The sample of diisopropylbenzene we promised you will be sent in a very few days. This is an equilibrium mixture of the various isomers which, I trust, will suit your needs. Please let me know if we can be of any further help in this matter.

It was a great pleasure to have you visit us and we appreciated the opportunity to hear you speak.

With kindest regards to you and to Mrs. Natta.

Sincerely yours,

W H Shiffler

Ans.

May 14, 1958

Mr. W. H. SHIFFLER - Vice President
CALIFORNIA RESEARCH CORPORATION
200 BUSH STREET
SAN FRANCISCO 20 - California

Ref. No. 599/rl

Dear Mr. Shiffler,

coming back from my long and interesting travel through the United States, I wish to thank you very deeply for all the kindnesses received from Mrs. Shiffler and you during our stay in California.

Mrs. Natta and I keep a pleasant remembrance of our weekend in Monterey. The moving and the pictures we made in 17 Miles Drive, on Point Lobus and in Carmel are beutiful, and they will remember to us the charming days we spent on the California Coast.

I am now waiting for the sample you promised to me of 4-methyl-pentene-1.

I do hope to meet you soon in Italy. Thanking you again, I send to Mrs. Shiffler and you our kindest regards and wishes.

Sincerely yours,

Giulio Natta

Ack

July 15, 1958

W.H. Shiffler
California Research Corp.,
200 Bush Street,
San Francisco 20
California

Our ref. 789/mb

Dear Mr. Shiffler,

Many thanks for your kind letter of June 24 and for the sending to us of a sample of di-isopropylbenzene.

Within a few days we will send you a report concerning the isotactic polymers obtained from your 4-metyl-pentene-1; in the same report you will find also the comparison between the results obtained with your sample and those obtained with the monomer we bought from Phillips a few years ago.

We are going also to send you an other report with the results obtained by the study of the kinetic of crystallization of the MXDA adipic acid fibers.

Yours faithfully,

(Prof. G. Natta)

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

June 24, 1958

W. H. SHIFFLER
VICE-PRESIDENT

Professor Guilio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

A 3-kg sample of diisopropylbenzene was shipped to you by air freight on June 13, 1958. It has the following isomer contents:

	Per Cent
Meta	65
Para	15
Ortho	5

Please let me know if we can be of any further help in this matter.

Sincerely yours,

W H Shiffler Jr

Ringraz!

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET · SAN FRANCISCO 20 · CALIFORNIA

JUN 24 1958

Professor Guilio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

A 3-kg sample of diisopropylbenzene was shipped to you by air freight on June 13, 1958. It has the following isomer contents:

	Per Cent
Meta	65
Para	15
Ortho	5

Please let me know if we can be of any further help in this matter.

Sincerely yours,

Original Signed
W. H. Shiffler
By J. T. R.

August 1st, 1958

Mr.
T.H. Shiffler
California Research Corp.,
200 Bush Street
San Francisco 20
California

Ref.No.920/rl

Dear Mr.Shiffler,

hereby, I am sending you a brief report on the results o
obtained by the testing of the 4-methyl-pentene-1 sample you have sent
to us.

Due to the small quantity of substance at our disposal, we
could not carry out but a restricted number of tests, whose results have
to be considered only indicative.

Such tests have been carried out by operating in the presence
of solvents, due to the difficulty of getting high conversion yields
without solvent, because of the fac that , under these last conditions,
the catalyst may be easily occluded by the polymer.

It is yet possible also to carry out the polymerization
without solvent, and recover the unreacted monomer.

The higher yields obtained in the presence of benzene may b
ascribed to its swelling action on the polymer. In any case, the polymo-
rization rate is very low; therefore, also after many hours, and wit cu
sible quantities of catalyst, the polymer yields obtained still results
relatively low.

The melting point of the heptanic extraction residue is always
about 240°C. Intrinsic viscosities are almost high for a polymer to be
employed for spinning, as well as almost high is the percent of amorphou
polymer (amount of the extractable with acetone and other) which is con-
tained in the raw polymer.

Indicative tests carried out with the addition of regulators
of molecular weight and of activators of the polymerization rate, have
not given such satisfactory results in comparison with those obtained in
the polymerization of other monomers (e/g/ propylene).

We will continue the polymerization tests as soon as we dispos
of an adequate quantity of monomer. Because of the lacking of the monom
we were not able to carry out tests to create the most suitable conditio

./.

in order to obtain polymers to be spinned.

Therefore, we will appreciate it if you could send us more (some Kilos) of 4-Ethyl-pentene-1 to enable us to better carry out the polymerization and to obtain polymer having suitable characteristics to be spinned, and eventually to test a better purification of the monomer. The filaments produced from polymer obtained with your monomer, are almost brittle.

Looking forward to receive from you, I remain,

Sincerely yours,

Ulalio Nestin

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET · SAN FRANCISCO 20 · CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

August 11, 1958

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for the prompt information about polymerization of the small sample of 4-methyl-pentene-1 which we sent you.

We were glad to get this information even though the polymerization rate is slow. We will send you a somewhat larger sample, and we hope for better results.

With best regards.

Very truly yours,

W H Shiffler

P.S. I also received on my desk the English translation of your lecture in San Francisco at the ACS meeting, "Conformation of Linear Chains and Their Mode of Packing in the Crystal State". I assume you sent this and I thank you accordingly.

W.H.S.

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

January 20, 1958

Am.

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Plazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

We are pleased to learn from your letter of January 9, 1958, of the progress you are making on the study of the crystallization kinetics of our MXDA polymers. We appreciate the very difficult experimental work required in your study, and we will be most interested in your detailed report when you have finished.

We are glad to learn that you have now located a chemist who will carry on the study during the coming year.

Attached is a check in the amount of $3170.00 covering the expense and rewards to your people working on the project during the last fifteen months. If convenient to you, it would be helpful to our accounting and budgeting system if you would invoice us for your expenses on a three-months' interval.

With best regards.

Very truly yours,

W H Shiffler

Encl.- Check

To Du.

October 24, 1958

Mr. W.H. Shiffler
Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Ref. No. 1136/rl

Dear Mr. Shiffler,

I am sending you a report on the researches carried out for your Company during last months.

Researches carried out on MXDA-adipic acid polymer

As you know, since last year we started a study on the crystallization kinetics of your polymer. Although I had the impression that this work is not of great interest to your Company, neverthless I wished to conclud it.

I shall briefly summarize here the more interesting results we obtained on the enclosed report you will find all the details:

- The course of the crystallization rate in function of the crystallization temperature is similar to that found by other researchers for other polymers;
- the crystallization rate is practically null at temperature below 80°C, reaches a maximum at temperatures between 145-165°C and decreases successively to a null value at about 230°C;
- in the range of 230-246°C (melting point) the polymer remains undercooled and does not crystallize;
- the difference between the density of the crystallized polymer and tha of the amorphous one is quite limited (density of the amorphous polyme 1.193 g/cm^3 ; density of the crystalline is about 1.216 g/cm^3);
- the polymer exposed to moist air absorbs humidity, and consequently, its density increases;
- in a table reported at the end of the enclosed report, you will find, as a summary, the different types of crystallizations that the polymer undergoes, according to the different crystallization temperatures.

These researches required more time than the foreseen, because the crystallinity degree was determined by density measurements, that are more precise than the X-Rays determinations.

./.

October 15, 1958

Sheet No.2

Ref.No.1095/rl

These density measurements required also more time thantthe foreseen, particularly due to the necessity of conditioning each sample. Because of the slow deabsorption of moisture, we must dry each sample for long times, to obtain reproducible results.

I think that our work on MXDA-adipic acid polymer may be concluded with the present report.

New reseach work

At present the chemist rewarded by your Company, is carrying out at our Institute, under our supervision, a research on the preparation from diisopropylbenzene of polyfunctional peroxides, having low vapor pressure Such products may be foreseen to have particular application as substituents of cumyl peroxide. The dicumyl monoperoxides substituted in paraposition (Italian Patent No.559008 by Hercules Powder Co. filed on 27.4.1956, granted 13.3.1957, Usa priority 24.5.1955) are described in literature, but the products substituted in other positions or those containing more than one peroxidic group in the same molecule seem not to have been studied.

As this study will require high amounts of raw materials, I should be grateful if you can send us, as soon as possible, a 10-Kg further sample of diisopropylbenzenes.

I send you also our invoice for the last 9 months (from January 1, 1958 till September 30, 1958).

With kindest regards and best wishes, I remain,

Sincerely yours,

G.Natta

Encl/

October 15, 1958

California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Invoice for the researches carried out for California Research Corporation on January 1, 1958 - September 30, 1958

Supplies, equipment, mechanical workshop.	Lit.	286.000	$ 460
Graduate chemists and assistants	"	1.050.000	" 1.685
Overhead expenses (70% of chemist's reward).	"	735.000	" 1.180
	Lit.	2.070.000	$ 3.325

November 18, 1958

Mr.W.H.SHIFFLER, Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Ref.No.1207/rl

Dear Mr.Shiffler,

thank you very much for your kind letter of November 10, 1958. I am pleased that our researches on the crystallization kinetics of the metaxylylendiamine-adipic acid polymer fit your own observations.

Thank you also for the check you kindly sent us for the researches carried out for your Company.

With my best personal regards and wishes, I remain,

Sincerely yours,

Giulio NATTA

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET · SAN FRANCISCO 20 · CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

November 10, 1958

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of October 24, 1958, enclosing report on your investigations on the crystallization kinetics of the metaxylylenediamine-adipic acid polymer. The data fit our own observations of crystallization characteristics very well; the fact that the maximum occurs at about 145-160°F helps explain why we obtained our best fibers in this temperature range.

We will ship to you as soon as we can obtain it, the ten kilograms of diisopropyl benzene that you requested.

We are also sending you our check in the amount of $3325 in payment of your invoice from January 1, 1958, to September 30, 1958.

We agree that the work on the metaxylylenediamine-adipic acid polymer should be concluded and will look forward with pleasure to the results of your work on polyfunctional peroxides.

With best regards.

Very truly yours,

W H Shiffler

Encl.- Check

abbiamo ricevuto check
e ringraziamo

Ann.

June 23, 1958

Prof. F. ROSSINI - Director
Chemical and Petroleum Research Lab
Carnegie Institute of Technology
PITTSBURGH 13 - Pennsylvania -USA

Dear Prof. Rossini,

I wish to thank you very much for your sending to us of infrared spectral data and mass spectral data for the period till 31.12.1957.

With best regards, I am,

Sincerely yours,

G. Natta

18 Luglio 1958

Egr.Dr.A.CIFERRI
c/o Mellon Institute
PITTSBURGH, Pa. - U.S.A.

Rif.N.847/rl

Egregio Dottore,

con riferimento alla Sua lettera del 9 u.s., Le comunico che in assenza del Prof.Natta, che attualmente si trova in Inghilterra per il Congresso di Nottingham sugli Alti Polimeri, abbiamo provveduto ad inviare al Prof.Sadron a Strasburgo, la metà degli estratti dei Suoi lavori, come da Lei richiesto.

I migliori saluti.

R.Gamma (segretaria)

Professor Giulio Natta
Istituto di Chimica Indus-triale
Politecnico
Milano,Italy

Pittsburgh,Luglio 9 1958

Gentile Professore,

La prego di scusare il mio lungo silenzio. Soltanto ora mi sono rimesso da una noiosa malattia causata apparentemente dal troppo lavoro fatto per preparare una nuova casa nella quale ci siamo trasferiti in attesa del nostro bambino.

Ho ricevuto gli estratti dei lavori a cui collaborai a Strasbourg pubblicati dalla Ricerca Scientifica. La ringrazio per il Suo interessamento ed il Suo conclusivo aiuto. Debbo ancora pregarLa di voler far inviare al Professor Sadron la meta'degli estratti perche'egli possa distribuirli agli altri coautori.

A quest'ora Lei avra'gia'saputo dal Dr.Flory maggiori dettagli sul nostro lavoro.Attualmente stiamo studiando il comportamento dell'acetato di cellulosa e credo che il problema sara'molto interessante.Da qualche risultato preliminare sembra che la notevole rigidita' causi osservabili deviazioni dal comportamento gaussiano e questo potrebbe essere un interessante punto da mettere in luce attraverso le nostre misure di stress-temperatura.Il Dr.Flory era anche molto interessato ai Suoi copolimeri etilene-propilene che potrebbero essere ideali per studiare la forma dell'equazione volume specifico-temperatura. Immagino che egli Le avra'richiesto qualche campione contenente dal 1-20% di propilene.Egli mi ha scritto che Lei puo' inviarci del polipropilene crosslinked, ..."isotactic of course"... .

Ieri ho saputo della morte del Professor Mazzetti.Ne sono stato cosi colpito ed addolorato come per la perdita di una persona veramente cara.

Le porgo i migliori e sinceri saluti e La prego di est-enderli alla Signora Natta.

A.Ciferri
A. Ciferri

Gamma:

Ivano [illegible]
[illegible]
[illegible]
[illegible]

6 Giugno 1958

Egr. Dr. A. CIFERRI
MELLON Institute
4400 Fifth Avenue
PITTSBURGH 13, Pa - U.S.A.

Rif.n.677/el

Egregio Dottore,

ricevo da Roma due pacchi degli estratti dei Suoi lavori dalla "Ricerca Scientifica", ma non mi è ancora pervenuta la fattura relativa.

Le invio per posta normale - come stampe - una diecina di esemplari e tengo qui a Sua disposizione il restante degli estratti.

Sono stato lieto di apprendere che il Prof. Flory verrà a Milano. La pregherei di informarlo che abbiamo già fissato per lui una camera a due letti con bagno all'Hôtel Manin.

Spero che la Signora Flory sia completamente ristabilita e possa accompagnare il Prof. Flory nella sua gita in Europa.

Il Prof. Flory mi ha scritto di aver ricevuto i campioni di polietilene lineare. Nel caso che ne occorressero degli altri, mi scriva pure liberamente.

Il prodotto che gli ho inviato presenta una distribuzione di peso molecolare piuttosto ampia, ma penso che sia possibile con altri tipi di catalizzatore ottenere prodotti con una distribuzione più ristretta.

Come ho scritto al Prof. Flory, poichè i brevetti sono già stati pubblicati, non c'è nessuna ragione di tenere riservato il modo di preparazione.

La prego di porgere cordiali saluti alla Sua Signora, anche da parte di mia moglie.

(Prof.G.Natta)

Pittsburgh,Maggio 21 1958

Professor Giulio Natta
Istituto di Chimica Industriale
Politecnico
Piazza L.da Vinci
Milano,Italy.

Gentile Professore,

vorrei innanzi tutto ringraziarLa per la serata che abbiamo avuto il piacere di passare con la Signora Natta e con Lei a Washington.

Ho riferito gran parte della discussione con Lei fatta durante quella serata al Professor Flory. Egli e' stato particolarmente soddisfatto della Sua idea circa la liberta' di piccole rotazioni non caratterizzate da sensibile variazione d'energia intorno alla forma trans del polietilene quando questo sia mantenuto sopra la temperatura di fusione. Come ebbi modo di accennarLe anche noi siamo portati a pensare che l'esistenza di queste piccole rotazioni aumenti di tanto l'entropia della forma trans si che questa sia preferita rispetto ad una forma ruotata che generalmente viene chiamata gauche (non abbiamo infatti nessun fondato motivo per ammettere che i due altri minimi nella curva del potenziale debbano essere a $\pm$ 120° come nell'etano). L'esistenza di questo altro minimo nella posizione diversa dalla posizione trans dobbiamo pero' ammettere perche' dalla misure di stress-temperatura abbiamo calcolato una variazione di energia interna di 500cal/moleCH_2 la quale non puo' essere attribuita che ad una differenza di energia di due isomeri ruotati. Poiche' tuttavia questa variazione di energia e' cosi' piccola occorre ammettere che la forma trans sia favorita entropicamente per spiegare la notevole rigidita' delle macromolecole di polietilene (misure in soluzione di Trementozzi) e di altre paraffine a basso numero di atomi di carbonio. Questa ipotesi manca di verifica diretta,essa e' soltanto suggerita per conciliare l'evidenza della notevole rigidita' con quella della bassa variazione dell'energia interna di rotazione. Il Professor Flory avra' modo di discutere molto meglio di me l'argomento durante la sua prossima gita a Milano.

A proposito di questa ,io ho cercato di preparare un interessante itinerario al Professor Flory che gli consentira' di arrivare a Milano il 3 sera o il 4 mattina del mese di Luglio. Egli verra' da Monaco per ritornare poi verso Mainz cosicche' la possibilita' di passare il week-end nella Sua casa in Val d'Aosta sara' particolarmente favorita (spero di aver capito bene che fosse in Val d'aosta).

La prego di gradire e di estendere alla Signora Natta i nostri migliori saluti ed il nostro profondo rispetto

A. Ciferri

Professor Giulio Natta
Claremont Hotel
Berkeley,California.

Gentile Professore,

mi dispiace non aver saputo prima del Suo viaggio altrimenti sarebbe stato piu' facile trovar posto nel Suo programma per una visita al Mellon. Mi auguro tuttavia che Lei possa riuscire ugualmente ad accettare l'invito che il Dr.Flory Le ha trasmesso al Claremont Hotel.

Io conosco il Suo programma fino alla visita a Brooklyn Sabato 26 Aprile.Nell'eventualita' che Lei non abbia immediatamente dopo fissate la Sua partenza noi saremmo felici che Lei passasse qualche giorno qui magari riposandosi un po delle fatiche del viaggio.Qualora Lei potesse venire a Pittsburgh La prego di far sapere l'ora del Suo arrivo in modo che io possa venire a prenderLa alla stazione o all'aereoporto.

Nel caso invece che Le sia impossibile venire io vorrei ugualmente incontrarLa e se possibile esserLe utile e stare un po con Lei prima della Sua partenza per l'Europa.Penso che mi sara' possibile vederLa a Brooklyn comunque La prego d'informarmi del Suo programma per quanto concerne la possibilita' d'incontrarLa.

Le auguro un ottimo soggiorno.

Gradisca i miei piu' sinceri saluti,

A. Ciferri

Pittsburgh Aprile 4,1956.

JSA

27 Marzo 1958

Egr.Dr. A. CIFERRI
MELLON Institute
4400 Fifth Avenue
PITTSBURGH 13, Pa. - U.S.A.

Rif.n.376/el

Egregio Dottore,

Le scrivo in fretta perchè parto questa sera per gli U.S.A. Le comunico le date del mio viaggio :

- 10 aprile : Università di California, Berkeley (Claremont Hote
- dal 13al 18 " : Meeting A.C.S. in San Francisco (Mark Hopkins Hote
- " 20 " 23 " : Canadà e Montreal (Sheraton Mount Royal Hotel)
- 24 aprile sera: Arrivo a New York (Hotel Pierre)
- 25 " : New York Accademy of Science
- 26 " : Polytechnic Institute of Brooklyn

Nei prossimi giorni Le verrà inviato un campione di polietilene completamente esente da ramificazioni.

Sono stato lieto di apprendere che il Prof. Flory verrà in Europa in giugno.

Certamente avrò occasione di vederlo in Inghilterra a a Nottingham. Nel caso però che il Prof.Flory potesse venire in Italia sarò felicissimo di vederlo, e se volesse fare una conferenza al Politecnico noi ne saremo onoratissimi e potremo contribuire alle spese di viaggio in Italia.

Siamo riusciti recentemente a produrre del polibutadiene 1-4 cis ad altissima purezza, che ha delle proprietà praticamente identiche a quelle della gomma naturale ed ai copolimeri etilene/propilene che hanno caratteristiche molto interessanti.

Avrò piacere di parlare della cosa con il Prof. Flory se verr a Milano.

(Prof.G.Natta)

Professor Giulio Natta
Istituto di Chimica Industriale
Politecnico
Piazza Leonardo Da Vinci
Milano, Italy

Pittsburgh Marzo 6, 1958

Dare un cenno visione

Gentile Professor Natta,

grazie per la Sua lettera del 24 Febbraio il cui contenuto e' stato di vero interesse.

In questo periodo abbiamo ottenuto degli ottimi risultati con polietilene Ziegler dalle misure di stress-temperatura. Confermando la nuova teoria di Flory secondo la quale polimeri a rotazioni limitate, data la variazione della distanza quadratica media fra gli estremi della catena colla temperatura, hanno comportamento diverso da quello ideale della gomma e del silicone in quanto interviene una variazione di energia interna durante l'elongazione, abbiamo potuto confermare questo comportamento e calcolare la differenza di energia fra le forme ruotate del polietilene (trans e gauche). Il valore ottenuto di 500 cal/m e' remarcabilmente in accordo col valore dedotto da spettri Raman su piu' semlici idrocarburi paraffinici. L'importanza di questo metodo per valutare quantitativamente la rotazione intorno ai legami di valenza (tale metodo fornisce misura della differenza di energia fra le varie forme ruotate ma abbiamo speranza di poter ottenere anche una misura dell'altezza delle barriere o energia di attivazione da misure di stress-strain) sembra superiore a quella del precedente metodo di Flory-Fox della viscosita' al Θ point. Il Dr Flory conta di effettuare una catalogazione di un gran numero di polimeri ed abbiamo per ora in programma poliisobutilene e acetetato di cellulosa "crosslinked" per via chimica. Il polipropilene da Lei proposto sembra molto interessante e Le saremmo veramente grati se ce ne mandera' qualche fibra. Abbiamo una apparecchiatura per lavorare ad alta temperatura e quindi non ci preoccupa il punto di fusione di 170°C a condizione che i crosslinks ed il polimero stesso siano stabili almeno fino a 230°C. Inoltre conoscendo ora gli obiettivi del nostro studio potra' considerare e suggerirci altri polimeri (isotattici o no) in cui sia suscettibile di valutazione una differenza di energia fra le forme ruotate. Unica condizione e' di poter porre qualche stabile crosslinks. Riguardo il polietilene esente da ramificazioni il Dr Flory pensa che sarebbe molto interessante usarlo per ottenere fibre col massimo di orientazione da usare per studiare la variazione del punto di fusione colla forza. A condizione che cio' non Le rechi un reale problema sarebbe molto bello poterne avere delle fibre (il peso molecolare di 500.000 sembra il migliore).

La Sua gentilezza ed il Suo aiuto per il nostro lavoro costituiscono una cosa veramente cara e preziosa. Io in particolare vorrei esprimerLe la mia riconoscenza. Il Dr Flory mi prega di esprimerLe anche il suo ringraziamento e la sua stima profonda.

./.

Il lavoro del quale Le ho parlato verra' presentato dal Dr Flory in Inghilterra nel mese di Luglio. Egli conta di venire in Europa verso la fine di Giugno e sebbene i suoi piani non siano ancora definiti egli vorrebbe farLe una visita dopo essere stato a Monaco. Da parte mia cerco di illustrargli le bellezze della strada via Austria e St Moritz. Anche io,in verita',comincio ad averne un po' di nostalgia.

Con i migliori e sinceri saluti

A. Ciferri

risposto 28-3-58

A.Ciferri

24 Febbraio 1958

Egr.Dr.A.CIFERRI
MELLON Institute
4400 Fifth Avenue
PITTSBURGH 13 - Pa. - U.S.A.

Rif.N.262/rl

Egregio Dottore,

ricevo la Sua lettera del 19.1.1958, pervenutami soltan il 15 Febbraio, e La ringrazio del rapporto inviatomi.

Quale polietilene avete usato? Quello ad alta pressione contie molte ramificazioni (1-2% di gruppi CH_3), quello a bassa pressione (Zieg circa 0.5%. Non sono perciò dei polimeri completamente lineari. Il polit ne Phillips è molto lineare, ha però un peso molecolare troppo basso per essere studiato come gomma.

Se Vi interessa potrei inviare al Prof.Flory del politene otte nuto con catalizzatori speciali, che è completamente lineare, che potrei fargli preparare del peso molecolare che desidera (adges. 200.000 o 500.000, media viscosimetrica). In esso i gruppi CH_3 non sono rilevabili con analisi I.R. e perciò si deve ritenere che sia esente da ramificazio

Non consiglio nè il polipropilene, nè il polibutene perchè tra tati con raggi γ si depolimerizzano fortemente.

Potrei inviarvi del polipropilene "crosslinked" per via chimica ma poichè fonde a 170°C il suo studio è meno agevole.

L'ottenimento di filo altamente orientato con il polietilene completamente lineare non è difficile e si possono ottenere fibre stirat con alte resistenze meccaniche, sino a 4-5 grammi per denaro, mentre il politene ad alta pressione fornisce solo fibre della resistenza di circa 1 g/denaro.

La prego di ringraziare il Prof.Flory dei saluti che ricambio vivissimi. La ringrazio dei Suoi auguri che ricambio cordialmente, insie a molti saluti.

(G.Natta)

Professor Giulio Natta
Istituto di Chimica Industriale
Politecnico
Piazza Leonardo da Vinci
Milano,Italy.

Pittsburgh,Gennaio I9,I958

Gentile Professore:

grazie per la Sua lettera dell'8 Gennaio colla quale mi illustra il comportamento del polibutene isotattico e la sua idea per studiarne la trasformazione morfologica.

Gli obiettivi attuali del nostro lavoro nel campo dell'elasticita' dei polimeri sono : I) determinazione della relazione forza_allungamento per polimeri lineri vulcanizzati ed allo stato amorfo e 2) determinazione della variazione della forza necessaria per una costante elongazione a diverse temperature. Lo scopo della prima ricerca e' di determinare per quali ragioni la relazione teorica basata sull'origine esclusivamente entropica della forza necessaria alla deformazione del "network" gaussiano non e' verificata sperimentalmente. Lo scopo della seconda ricerca e' la determinazione della variazione dell'energia interna colla elongazione. Tale variazione e' aspettata a temperature tali che avvenga un cambiamento di stato ed anche ,in assenza di questo,atemperature tali che la distanza media quadratica fra gli estremi della catena subisca variazioni a causa del superamento delle barriere di potenziale alle libere rotazioni. Questo ultimo effetto e' stato recentemente previsto da Flory. La principale difficolta' incontrata in queste ricerche e' la difficolta' di ottenere valori di equilibrio. La variazione morfologica del polibutene e' sicuramente suscettibile di essere studiata con questo metodo tuttavia il Dr.Flory pensa che la ricerca delle condizioni nella quale essa possa avvenire reversibilmente debba essere molto problematica (fenomeni di nucleazione possibili) e pertanto non possibile per il momento in cui lo stesso tipo di difficolta' dobbiamo superare per altri polimeri. Poiche' tuttavia stiamo attualmente studiando variazioni di configurazione allo stato amorfo ed equilibri amorfo_cristallino,lo studio di una variazione fra forme cristalline costituirebbe un importante complemento in questa direzione. Non e' tuttavia prevedibile quando riusciremo a sormontare le difficolta' sperimentali per i sistemi in esame e giacche' non credo che il prossimo anno rimarro' a Pittsburgh non posso prometterLe di sviluppare la Sua idea. Se nelavro' tuttavia la possibilita' Le scrivero' e probabilmente Le chiedero' del materiale.

Fra le attuali difficolta' incontrate nello studio dell'equilibrio amorfo cristallino per il polietilene c'e' appunto la difficolta' di ottenere fibre altamente orientate di sezioni dell'ordine di decimi di millimetro quadrato. E' probabile che Lei possegga tali fibre in polipropilene o in polibutene isotattico. Il Dr.Flory ed io Le saremmo veramente grati se,avendole, potesse inviarcene un campione. Per prevenire il flusso allo stato liquido usiamo porre qualche "crosslink" irradiando con raggi gamma.

Il lavoro sui muscoli procede bene ed alle volte ci capita di vedere che queste fibre di coniglio seguono meglio le teorie delle fibre di gomma. Ma

./.

e' prematuro che io Le parli dei risultati. Le accludo il nostro ultimo rapporto dal quale potra' avere miglior particolari sulle nostre ricerche.

Ancora grazie ed i migliori e sinceri saluti dal Dr.Flory e da me

A. Ciferri

A.Ciferri

Allegato.

AC/ac

Mellon Institute
4400 Fifth Avenue
Pittsburgh 13
Pa.

Varie 1h

8 Gennaio 1958

Egr. Sig.Dr. A. CIFERRI
c/o Prof. Flory
Mellon Research Institute
PITTSBURG, Pa (U.S.A.)

Rif.n.2118/el

Egregio Dottore,

dalla Sua lettera del 12 dic.u.s. ho appreso con piacere che Lei si occupa di problemi dell'elasticità delle macromolecole e dei muscoli.

Il polibutene isotattico può forse essere un polimero avente una struttura semplice che potrebbe essere preso come base di partenza per uno studio da questo punto di vista.

Il polibutene isotattico è dimorfo e la modificazione con simmetria quaternaria dell'elica, meno stabile, si trasforma spontaneamente e rapidamente per stiro in quella a simmetria ternaria più allungata. Da soluzioni in solvente si separa invece la modificazione a simmetria quaternaria.

Per clorurazione parziale si ha un aumento dell'ingombro laterale che rende stabile la modificazione quaternaria.

E' probabile che per introduzione di minori quantità di cloro (o meglio di ossidrili) si possa rendere reversibile la trasformazione per stiro di una modificazione nell'altra e renderla sensibile alla presenza di solventi (e nel caso della sostituzione di atomi di H con ossidrili al pH del mezzo).

Attualmente noi siamo occupatissimi in altri campi per occuparci di questo e La autorizzo ad accennarne al Prof. Flory se l'argomento può interessarlo. Tra l'altro ci stiamo occupando di polimeri a stereoblocchi ed applichiamo la teoria di Flory sull'abbassamento della temperatura di fusione per i copolimeri alle irregolarità provocate dalla diversa configurazione sterica di qualche unità monomerica.

Abbiamo preparato polimeri aventi diversa cristallinità e diversa temperatura di fusione, ad es. nel caso del polipropilene isotattico (a t.f. 175° abbiamo separato dei polimeri a stereoblocchi a t.f. via via decrescente sino a 110°)e ne stiamo interpretando dal punto di vista cinetico la formazione.

Nel campo delle gomme i risultati da noi ottenuti per copolimeri omogenei etilene-propilene (che presentano proprietà elastiche e meccaniche superiori alla GRS) sono di grande interesse anche pratico, a causa del basso costo dei monomeri.

I migliori saluti.

G.Natta

Professor Giulio Natta
Istituto di Chimica Indusriale
Politecnico
Milano

Gentile Professor Natta,

ho ricevuto le bozze da Lei inviatemi e le ho gia' spedite a Roma. Vorrei esprimerLe la mia gratidudine per tutto cio' che ha dovuto fare perche' questi articoli venissero pubblicati in Italia dalla Ricerca Scientifica. Ho scritto all'Ing.Boni di inviare direttamente a me ulteriori bozze o le copie (sebbene abbia lasciato come mio indirizzo quello di Milano,anche di cio' le sono grato) cosi' Le evitero' di ritrasmettermi tutta questa corrispondenza.

Ho mostrato la Sua lettera al Dr.Flory che e' stato contento dei suoi saluti e della Sua simpatia per lui. Mi prega di ricambiarLe le stesse cordia= lita'. Anche la Signora Flory mi parla spesso di Lei,della Sua famiglia e del loro soggiorno a Milano.

Sono molto felice di lavorare col Dr.Flory (anche se ho un po' nostal= gia del "Centre" di Strasbourg). Il Mellon Institute diventera' certamente un grande Centro di Studi sotto la sua direzione. I problemi attualmente allo studio concernono le proprieta' mecaniche delle macromolecole incluso lo studio di divergenze osservate fra l'esperienza e la teoria statistica dell'elasticita' della gomma e la misura dell'elasticita' dei muscoli i quali secondo l'ipotesi del Dr.Flory dovrebbero avere un comportamento elastico non diverso da quello di altri polimeri. Questo ultimo problema appare molto interessante quantunque comporti l'inconveniente di dover uccidere qualche coniglio.

Voglia gradire l'espressione della mia stima ed i miei piu' rispettosi saluti

A.Ciferri

Pittsburgh,Dicembre 12,1957.

Columbia University
Casa Italiana
117TH STREET AND AMSTERDAM AVENUE
NEW YORK 27, N. Y.

OFFICE OF THE DIRECTOR

14 marzo 1958

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano

Illustre professor Natta,

grazie della sua gentile lettera del 10 corrente. Capisco bene che con un programma carico come il suo Le sia praticamente impossibile accettare nuovi impegni di conferenze. Spero però che potremo averla alla Casa Italiana durante il suo soggiorno a New York come ospite d'onore e per il piacere di fare la sua conoscenza.

Il dottor Ottolenghi della Montecatini si è offerto di mettersi in contatto con Lei e di fissare una data per un ricevimento qui alla Casa. Mi auguro che Lei potrà trovare un momento libero per farci visita e nell'attesa del piacere di conoscerLa personalmente La prego di gradire i miei più distinti saluti.

Suo dev.mo,

Peter M. Riccio

Peter M. Riccio
Direttore

Prossimo con un in America!

Meeting ACS
uniti

10 Marzo 1958

Dr.Peter M.Riccio, Direttore
Columbia University
Casa Italiana
117th Street and Amsterdam AVE.
NEW YORK 27 - N.Y. - U.S.A.

Rif.N.340/rl

Egregio Dottor Riccio,

La ringrazio molto per la Sua gentile lettera del 26 febbraio u.s., e per il gentile invito da Lei rivoltomi.

Desidero informarLa del mio programma di viaggio : arriverò a San Francisco ai primi di Aprile, ed il 10 terrò un Simposio all'Universi di California in Berkeley. Dal 13 al 18 Aprile sarò impegnato per il Meeting dell'American Chemical Society, dove presenterò due conferenze. Dal 20 al 23 sarò a Montreal, dove presenterò una conferenza alla U.S.-Canada Chemical Engineering Conference. Il 24 sera arriverò a New York per partecipare ad un ricevimento della New York Academy of Sciences il 25 sera ed a un Simposio presso il Politecnico di Brooklyn il 26. Subito dopo dovrò ripartire per Washington.

Sebbene abbia ricevuto, per l'ultimo periodo della mia permanenza negli U.S.A., numerosi inviti dalle più grandi Società Chimiche della gomma , non ho ancora deciso un programma anche perchè dovrò ripar re ai primi di maggio per l'Italia. Dato però che ripartirò da New York, spero che mi sarà possibile accettare il Suo invito e sarò lieto in tale occasione di conoscerLa. La vorrei però pregare di esonerarmi dal fare una conferenza, in quanto il mio viaggio negli U.S.A. comporta già un programma molto denso e faticoso.

RingraziandoLa ancora, La prego di gradire i miei migliori saluti.

(Prof.G.Natta)

Columbia University
Casa Italiana
117TH STREET AND AMSTERDAM AVENUE
NEW YORK 27, N. Y.

OFFICE OF THE DIRECTOR

26 Febbraio 1958

Egregio Professore Natta,

Dal New York Times del 22 Febbraio u.s., abbiamo appreso con piacere ed orgoglio la notizia della Sua nomina a membro della New York Academy of Sciences ed oggi, da una comunicazione del Console Generale, Barone Carlo de Ferrariis Salzano, abbiamo saputo della Sua prossima venuta negli Stati Uniti per la conferenza che l'American Chemical Society terrà in Aprile a San Francisco.

La Casa Italiana sarebbe fiera di offrirLe un ricevimento se Lei volesse essere così gentile da farci conoscere le date in cui si troverà a New York e, naturalmente, se i Suoi impegni Le permetteranno di dedicarci qualche ora del Suo tempo. Saremmo inoltre molto lusingati se potesse tenere una conferenza nell'Auditorium della Casa Italiana.

In attesa di ricevere una Sua risposta, La prego di gradire i miei rallegramenti personali per la Sua nomina e molti cordiali saluti.

Peter M. Riccio
Direttore

Prof. Giulio Natta
Istituto Politecnico
Milano, Italia

May 2, 1958

Mrs. Kathleen T. Garner
Research Librarian
Diamond Alkali Co. - Research Center
PAINESVILLE - P.O. Box 348
Ohio - USA

/rl

Dear Mrs. Garner,

with reference to your requestoof March 21, 1958, for a reprint of the Natta's paper appeared on J. Polymer Sci. 20, 251 (1956), I inform you that we have not more reprints available, owing to the great request.

With best regards.

Sincerely yours,

(Mrs.) R. Lamma , secretary to Prof. Natta

Diamond Alkali Company

GENERAL OFFICES · UNION COMMERCE BUILDING · CLEVELAND 14, OHIO · TELEPHONE MAIN 1-6100

March 21, 1958

PLEASE REPLY TO
P. O. BOX 348
RESEARCH CENTER
PAINESVILLE, OHIO

Mr. G. Natta
Insliituto di Chimica Industriale
del Politecnico
Milano
ITALY

Gentlemen:

Please send us two copies of the following publication at your earliest convenience:

Reprint of your article as it appeared in the May 1956 issue of the J. OF POLYMER SCIENCE and entitled:

"The Structure of Crystalline 1,2 - Polybutadiene and of Other "Syndyotactic Polymers"

202

This section is a clearing-house for all information requests and all publications should be addressed to the attention of the writer.

If there are any charges, please notify us and we shall remit promptly by return mail.

Very truly yours,

DIAMOND ALKALI COMPANY
Research Library

Kathleen T. Garner

(Mrs.) Kathleen T. Garner
Research Librarian

KTG:pk

v. Ave.

December 16,1958

Mr. Meyer Schwarz
Dept.of the Army
Diamond Ordnance Fuze Lab.
Washington 25, D.C.

Our Ref:1282/mb
Your Ref. ORDTL-310-135

Dear Mr. Schwarz,

Following to your request dated November 29, we are sending you a reprint of a work recently issued by us concerning the polymerization of acethylene with catalysts prepared from metallorganic compounds, and the properties of the polymers so far obtained.

A paper on the polymerisation of the esine-1 and the structure of those polymers will be shortly published by us.

As soon as the preprints of the above works will be available, we shall send them to you.

With our best regards,

Yours very truly,

Prof. G. Natta

En/

971

Department of the Army

ORDNANCE CORPS

DIAMOND ORDNANCE FUZE LABORATORIES

WASHINGTON 25, D. C.

IN REPLY REFER TO:
ORDTL-310-135

29 November 1958

Prof. G. Natta
Instituto Di Chimica Industriale
Polytechnico Di Milano
Milano, Italy

Dear Prof. Natta:

We have read with great interest the abstract of the paper, as published in Ang. Chem. 69, 685 (1957), on the polymerization of acetylenic hydrocarbons which you presented at the 1957 meeting of the International Conference of pure and applied chemistry.

Since we are very much interested in measuring the physical properties of polymers such as you obtained, we would greatly appreciate obtaining detailed information describing the preparation and purification of said polymers.

Thanking you in advance for your consideration.

FOR THE COMMANDER:

Sincerely yours,

Meyer Schwarz

MEYER SCHWARZ
Chemist, Materials Branch 310

products and you are interested in examining them, you might develop a X-ray study of their structure at my Institute. In this field my coworkers will help you also in the interpretation of the spectra. I shall be more precise on this subject before next summer.

February 25, 1958

With best regards.

Prof. James P. Danehy
University of Notre Dame
Department of Chemistry
NOTRE DAME - Indiana - USA

Ref.No. 308/rl

Dear Professo Danehy,

please excuse my long delay in answering your letter of November 6, 1957, but in this time I examined the possibility to extend to you the hospitality in our Institute. Actually, we are completing a new wing of our Institute, and most probably it will be ready at the end of 1958. Owing to the great number of people working at our Institute, and the insufficient room, before completing the new building, I cannot let you have some room to work in the field of chemical preparations. On the contrary, if you have already some products and you are interested in examining them, you might develop a X-ray study of their structure at my Institute. In this field my coworkers will help you also in the interpretation of the spectra. I shall be more precise on this subject before next summer.

With best regards.

Sincerely yours,

G. Natta

University of Notre Dame
Notre Dame, Indiana

Department of Chemistry

November 6, 1957

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your kind letter of October 9 in which you generously extended the hospitality of your institute to me.

I have just recently made application for a Fulbright award for the academic year 1958-59 and it may be several months before I hear whether or not I shall be granted the award.

Professor D'Alelio sent you a copy of the brief statement of the research proposal required by the Fulbright committee. I should like to give you a summary of my professional experience and the reasons for my choice of this problem.

In 1936 I received the Ph.D. in organic chemistry from the University of Notre Dame, working with the late J. A. Nieuwland. From 1936 to 1941 I was a research chemist in industry. From 1942 to 1948 I was in charge of protein research at the laboratories of Corn Products Refining Company, Argo, Illinois. (Mr. E. A. Cleveland, Fabbriche Riunite Amido Glucosio Destrina, Milano, was a colleague of mine during those years and is very well acquainted with my qualifications. His wife was one of my research assistants.) From 1948 to 1951 I was in charge of research on keratin fibers at the laboratories of the Toni Company, Chicago, Illinois. During these years, I worked closely with Dr. Milton Harris of Washington, D. C. In 1951 I returned to the University of Notre Dame where I now hold the post of associate professor in the Department of Chemistry.

During the more than fifteen years of my industrial research I was unable to publish because of the policy of my employers. However, now that I have returned to the University and have research projects under way in connection with students I shall soon be publishing papers again. Current research projects include the following:

1. Extraction and fractionation of the protein components of human hair.

2. The reactions of the disulfide bond in alkaline media: the cystine-lanthionine transformation.

3. A kinetic study of the mechanism of reactions of mercaptans with epoxides.

4. The reactions of organic disulfides with alkyl phosphites.

5. The resolution and racemization of the enantiomorphs of alpha-sulfofatty acids.

It is in connection with the first two problems that I feel the need of making a study of the structure and properties of polypeptides containing varying amounts of disulfide cross-links. I am confident that such a study could be carried out successfully by me in your laboratories and that I would benefit greatly by consultation with you and your colleagues.

Let me thank you again for your friendly interest and offer of hospitality.

Very sincerely yours,

James P. Danehy

James P. Danehy
Associate Professor

JPD:md

October 27, 1958

Dr. Joseph Di Pietro
723, Bristol Pike,
Andalusia, Pa.,
N.J. (U.S.A.)

973/mb

Dear Dr. Di Pietro,

I think I owe you an apology for not having replied at an earlier date to your letter of September 3.

I am glad to know that you will be able to come to Milan in order to work in our Institute starting next Summer. Within that time I hope the new building will be entirely finished, so that we will have much more place at our disposal to receive new other people.

As far as the monograph you mention is concerned, I wish you to know that many of my co-workers are actually attending to the writing up of a book in which all our papers will be collected and that it is expected to be delivered to the Editor within next Summer. I still doubt whether this workwwill take much more time than foreseen; in this case, eventually, soon as you will be in Milan, you may help my co-workers in the revision of the English manuscript.

Looking forward the pleasure of meeting you, I remain,

Yours very truly,

Prof. G. Natta

SEPTEMBER 3 1958.

rispondere!

Professor Giulio Natta:

I was happy to hear from you in regard to my possibility to work for you at the Institute.

I appreciated your kindness in describing to me the reasons for not having any offer at the time when I wrote; however, you suggested in your letter dated, November, 20, 1957, to write to you again this Summer. I am still very interested in the type of work you are doing and I would like very much to work for you, preferably starting next Summer. In the meantime, I thought of asking you for your personal permission to allow me to publish here in America a monograph of your combined papers in the field of Polymer Chemistry. I think, this monograph would be very welcome by Universities and research centers. It is my sincere feeling that you are highly respected here in America for your contribution in the field of Chemistry. I personally would undertake the task of translating from Italian into English, all those papers written in Italian, while for those written in English I could request the various Editors for their permission. I hope this past year has been a fruitfull year for you and your research group, in all your endeavors. Please write to me at your convenience, letting me know of your decision on the matter.

chiedere Devono

Very truly yours,

rispondere

Joseph Di Pietro
723, Bristol Pike, Andalusia, Pa.
N.J. (USA)

November 20, 1957

No.1805/rl

Dr.Joseph Di Pietro

Department of Chemistry
College of Arts and Sciences
Univ. of Maryland
COLLEGE PARK - Maryland - U.S.A.

Dear Dr.Di Pietro,

I received your letter of October 7, and I am answering with delay as I wanted to examine the possibility to accept you in our Laboratory. Unfortunately, at present, we are working in the old building and our Laboratories are almost insufficient for our staff. Our new building is not yet completed and will be ready only during last months of 1958; therefore, I am sorry not to be able to receive anybody before the summer vacations. If it is suitable to you to come to our Institute even ~~in~~ after that period, please write again to me next summer.

With best regards.

Sincerely yours,

G.Natta

October ,7 ,1957.
College Park, Md.

Dear Prof. Natta;

This past July, I visited your research laboratories at the Polytechnique Institute of Milan, escorted by the corteous Dr. Pino. I was impressed by your entire system of research facilities and I became more and more interested in the type of work which you are presently engaged into. My field of interest is polymer Chemistry and I would consider myself extremely lucky if you would give me the opportunity to work under you for a period of time . At present I hold a B. S. degree in Chemistry, plus three years of graduate work under Dr. Bailey W. J., and a M. S. degree in Chemistry from the University of Maryland; in addition I have the equivalent ofone year of industrial experience in polymers. I am 26 years old , single, and my knowledge of the Italian language is very good.

I hope you will be kindly enough to consider my application letting me know of your decision as early as it is most conveniento you.

Sincerely yours
Joseph Di Pietro
Instructor of Chemistry
University of Maryland.

Dott. of Chemistry
College of Arts and Sciences
College Park
Maryland

Dawson
parkm

3000

2100
2184

Ans!

November 7, 1958

Prof. Barnett F. Dodge
Yale University
225 Prospect Street
New Haven, Conn.

Dear Professor Dodge,

I think I owe you an apology for not having replied at an earlier date to your letter of September 8, due to my being away during the whole month of September.

As far as your visit within May or June to Milan is concerned, I wish to drow your attention to the fact that our students are in June particularly engaged by the preparation of their examinations, that take place during such period. It would be, therefore, rather difficult for them to find out more time to at= tend lectures or seminars.

Should you agree with this, I think it most convenient to plan your visit for the month of May. In case you were not able to come within that date, your lecture on the chemical thermodynamic applications might take place on a reduced schedule in June.

Best regards,

Yours sincerely,

G. Natta

Chemical Engineering Department
~~Yale University~~
Sterling Chemistry Laboratory
225 Prospect Street
New Haven, Conn.

NEW HAVEN 2 CONN. SEP 8 7 PM 1958

AIR MAIL 10¢

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Professor Giulio Natta
Instituto de Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER WILL BE SENT BY ORDINARY MAIL

MILANO ARRIVI DISTRIB. 15-1 11-IX 1958

FIRST FOLD

SECOND FOLD

September 8, 1958

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

As a result of our correspondence last June, I have been thinking further about the question of giving some lectures at Milano next year and I am writing to ask you for a little further information since it is necessary to make tentative reservations on a ship as early as the present. If you are still interested in having me deliver two or three lectures on the applications of thermodynamics, could you give me a tentative date? I could probably arrive in Italy late in May, but it would probably be somewhat better for me if the lectures could be scheduled after June 15. However, if it would be much better from your standpoint to have them earlier, I will certainly do my best to meet your wishes.

Sincerely yours,

Barnett F. Dodge

BFD:A

Barnett F. Dodge
Professor of Chemical Engineering
Yale University
225 Prospect Street
New Haven, Conn.

fine maggio
fine giugno esami in giugno
bottom di dott

Martina

se è il caso di invitarli
, sia quali funzioni

YALE UNIVERSITY
NEW HAVEN · CONNECTICUT
DEPARTMENT OF CHEMICAL ENGINEERING
STERLING CHEMISTRY LABORATORY
225 PROSPECT STREET

June 12, 1958

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

On my return to this country I found your letter of June 2. I regret very much that I was not able to accept your invitation to give some lectures this year as I should have liked very much to visit the Politecnico in Milano and to have had the opportunity of meeting you. I do hope that I will be able to get to Italy next May or June and if I do I will certainly plan to give the lectures which I was unable to give this year.

Sincerely yours,

BFDodge

Barnett F. Dodge
Professor of Chemical Engineering

BFD:A

Pm.

(Vedere anche Varie H. Commissione)

June 3, 1958

Professor Barnett F. Dodge
Dept. of Chemical Engineering
Yale University
225 Prospect Street
NEW HAVEN, Conn. - U.S.A.

Ref. No. 663/rl

Dear Professor Dodge,

I received your kind letter of May 30, and I regret very much not have been able to see you this year and to have you our guest. I do hope to be able to meet you next summer, as you told in your letter, and I shall be very glad if you may give nex May of June 1959, the lectures proposed for this year, or other lectures.

With my kindest regards, I remain,

Sincerely yours,

Giulio Natta

39, rue Nicolas Leblanc,
Lille (Nord) France.
May 30, 1958.

Dear Prof. Natta,

Thank you for your letter of May 23. Unfortunately it will not be possible for me to go to Milano during the times you mentioned. I have to be back in the U.S. by June 15 to attend to some business and also to attend the 50th anniversary celebration of A I Ch E. The only possible date when I could have gone to Milano was the first week in June.

It is quite possible that I shall be back in Europe next summer and if you still wish me to give the proposed lectures I could do so then, probably almost any time in June or even late May. 1959

We are leaving here tomorrow and the next address at which letters will reach me is,

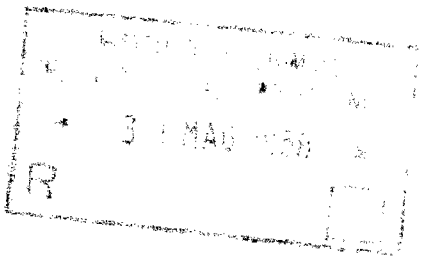
Dept. of Chemical Engineering,
Yale University,
225 Prospect St.,
New Haven, Conn.
USA

Sincerely yours,

Barnett F. Dodge

Magyar.
Ha du ere [illegible]
a du [illegible] [illegible]
Vedere [illegible]
in Maggio o Giugno 1959.

Commissione Affari Scientifici Culturali con Italia Roma



P rof. Barnett F. Dodge
39, rue Nicholas Leblanc
Lille (nord)
FRANCE

May 29, 1958

Dear Professor Dodge:

Thank you for your letter of May 23. I was very sorry to hear that not having received any news from Professor Natta, you will have to cancel your visit to the Polytechnic Institute of Milan and your lectures there. I understand perfectly that, if you plan to leave Europe on June 5, these will no longer be feasible.

Please accept my sincere apologies for this confused matter, and I do hope that you will be able to be the guest of the Polytechnic Institute on your next visit to Europe.

With best regards,

Sincerely yours,

Cipriana Scelba
Condirettore del Programma

cc: Prof. G. Natta,
Istituto Politecnico di Milano

Ans

July 28, 1958

Our ref. 887/mb

Prof. Paul Doty
Harvard Univ.,
Dept. of Chemistry
12 Oxford Street
Cambridge 38, Mass.
U.S.A.

Dear Prof. Doty,

On my return from the Nottingham Conference, where I hoped to have the pleasure of meeting you too, I found your kind letter dated July 18, concerning the visit that Tomio Nishihara wishes to make to Milan at the end of August.

I am distressed to have to inform you that, most probably, at that time, I shall not yet be come back from my summer holidays; nevertheless, the Institute being open after the 25th of August, I charged one of my assistants (namely, Prof. Paolo Corradini) to let him visit my laboratories.

Hoping to have the pleasure of meeting you soon in Europe or in U.S.A., do receive, dear Prof. Doty, my best personal wishes,

(Prof. G. Natta)

HARVARD UNIVERSITY

DEPARTMENT OF CHEMISTRY

12 Oxford Street
Cambridge 38, Massachusetts, U.S.A.

July 18, 1958

Professor G. Natta
Instituto Chimica Industriale del
Politechnico
Milano, Italy

Dear Professor Natta:

I write to ask you for the following favor. Tomio Nishihara is returning to Japan via Europe after having spent two years in my laboratory. Although his principal researches have been on gelatin and collagen, and these have been very good indeed, he would like very much to make a brief visit to your laboratory to see how isotactic polymers are really made. Would it be possible for you to ask one of your younger colleagues to show him about if he were to stop in Milan about the 26th of August?

You probably receive many requests like this and we will understand it very well if you cannot do this.

Very sincerely yours,

Paul Doty

Paul Doty
Professor

PD:lwl

Ann.

July 4, 1958

Prof. F. R. Eirich
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

Dear Professor Eirich,

I appreciate very much your kindness and your keepsake. My wife and I laughed very much in reading the "Chemists" ménu!

Thanking you very much, I sending you my kindest personal regards, hoping to have soon another occasion to meet you.

Yours sincerely,

G. Natta

~~From the desk~~ of

F. R. EIRICH

impressions

Just to show that we thought of you and missed you.

With kindest personal regards,

Yours,

Sincerely

F. Eirich

March, 18 - 1958

Mr. Gerald B/Blackwell
General Manager
ELECTROMATION CO.
1646 18th St.
SANTA MONICA - California

Ref.No.417/rl

Dear Mr.Blackwell;

I received your letter of March 10, 1958, and I wish to inform you that I have trasmitted it to Montecatini Co., Via Turati 18 - Milano (to the attention Dr.B.Orsoni). This company disposes of all our patents on MOPLEN production and distribution.

Best regards.

Truly yours,

(Prof.G.Natta)

ELECTROMATION CO.

Dear Mr.G.B.Blackwell ,

ricevo la Sua lettera del 10 c.m. che ho trasmesso alla Soc. MONTECATINI, via Turati, 18 - Milano, che dispone dei nostri brevetti sulla produzione e distribuzione del Moplen.

Saluti.

COPIA

ELECTROMATION CO. 1646 18th St., SANTA MONICA - CALIFORNIA (original a Roma)

March 10, 1958

Professor Giulio Natta
Department of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Sir,

It has come to our attention that you are the discoverer of the process by which isotactic polypropylene plastic is derived from propylene gas, and that one of these synthetics, Moplen, is now under development by an Italian firm.

We are very interested in these new products, particularl Moplen, and would like to know if your organization is considering the acceptance of investment by an American firm in the production and distribution of the products.

It is our understanding that you have an agreement with an Italian firm, and we are interested to know whether you and the firm involved would be interested in discussing investment by our company in the production and marketing of your product in Europe, and a licensing arrangement whereby we might produce and market the materials in America.

Thank you for your kindness in sending us any information you can.

Very truly yours

ELECTROMATION COMPANY

f.to

Gerald B. Blackwell
General manager

Ans.

November 7, 1958

Prof. H.P. Frank
Illinois Inst. of Technology
Technology Center
Chicago 16

1161/mb

Dear Professor Frank,

This is in reply to your letter of October 26. At the moment, we have no fresh samples available of iso and syndiotactic polybutadiene, since our studies on polydiolefins are now concentrated on other subjects.

I would rather prefer not to send you samples we have formerly prepared as, being prepared since long, are oxydized and crosslinked. I believe it preferable for you to have freshly prepared products; therefore, it would be advisable to get them ready yourself. The method we have employed to obtain iso and syndiotactic polybutadiene is illustrated in the two Belgian Patents 549.554 and 556.629, already published longe since; I am quite sure that the instructions herein reported will enable you to prepare the amount of product you need. The examples we are sending you herewith, are taken off from the above cited Patents and might suit your purposes.

A paper concerning the method of preparation of 1,2 polybutadiene is to be published shortly in a more detailed way than what has been reported in the above mentioned Patents. I will gladly send you a reprint of the paper as soon as available.

Yours sincerely,

En/

Prof. G. Natta

Exemple I

Preparation of 1,2 syndiotactic polybutadiene.-

Operating in a nitrogen atmosphere it should be introduced in a container :

- g 1 Vanadium triacetylacetonate, dissolved in 80 ml of anhydrous benzene
- ml 4.5 of $Al(C_2H_5)_3$ DISSOLVed in 80 ml of anhydrous benzene

Soon after mixing, the colour of the solution turns suddenly to dark brown.

It is to be left at room temperature (about 18°C) for two hours, after which it is introduced in a oscillating previously evacuated 500 ml autoclave; g 100 of pure butadiene are further added.

The temperature of the autoclave is kept at 15°C for about 15 hours.

The polymerization is then stopped by introducing 50 ml of methanol.

The polymer obtained is coagulated with methanol acidified with Hydro= cloric acid, and then washed for a long time with pure methanol.

About g 25 of dry polymer are obtained, which are extracted with dieth ether in order to separate the amorphous fraction (40% about of the total polymer). The ether extraction residue is extracted with benzen which removes the crystalline sundiotactic fraction. The extractions must be performed under nitrogen to prevent a polymer oxydation.

Preparation of 1,2 isotactic polybutadiene.-

The operation must be carried out as in the previous exemple.

For the preparation of the catalyst, the following reagents are to be used :

- g 1 of Chromium hexaphenylisonitrile, dissolved in 80 ml of benzene
- ml 2,3 of $Al(C_2H_5)_3$ dissolved in 80 ml of benzene.

The benzene extract (after the ether extraction) is, in this case, crystalline isotactic polybutadiene.

ILLINOIS INSTITUTE OF TECHNOLOGY
TECHNOLOGY CENTER
CHICAGO 16

Department of Chemistry

October 26, 1958

Prof.Dr. G. Natta
Istituto di Chimica Industriale
Politecnico
Milano, Italy

Dear Professor Natta:

I wonder whether it would be possible to obtain from you two samples of the isotactic and syndyotactic 1,2 polybutadiene which you have described in J.Pol. Sci. 2o, 251 (1956). Of course I would very much appreciate it to get a fairly large sample if possible (about 5o g each). If this however can not be done even a few grams of each of the two samples would be highly appreciated.

We are concerned with isocyanate reaction on polybutadiene and other polymers. In the case of polybutadiene it is specifically the allylic H-atom of the 1,2 units which is reactive. It would be extremely helpful if we could obtain well defined samples of the kind described by you in the above cited article.

If you should not be able to supply us with these samples, I would very much appreciate it if you could give us some advise where we might be able to get them; possibly Montecatini?

With best regards and many thanks in advance,

Respectfully yours,

H. P. Frank

H. Peter Frank

Pizzini

sentire Pozzi e poi

con le persone?

February 20, 1958

Mr.Sidney FRIEDMAN
U.S.Dept.of the Interior
Bureau of Mines
Pittsburgh 13, Pa. - U.S.A.

/rl

Dear Mr.Friedmann,

with reference to your request, dated January 27, for a reprint of the Natta's paper appeared on Scientific American, I wish inform you that we have no reprints available of this article.

With best regards.

Truly yours,

Secretary to Prof.Natta

Am.

December 23, 1958

Prof. Paul J. Flory
Mellon Institute
4400 Fifth Avenue
Pittsburgh 13, PA.,

1149/mb

Dear Professor Flory,

I have sent you today three samples of polymers having the following characteristics :

1) Raw polymer of butene-1 (isotactic + stereoblock + amorphous polymers), obtained with stereospecific catalysts prepared from $TiCl_3$ $Al(C_2H_5)_3$, and containing 75% of ether non-extractable macromolecules ; intrinsic viscosity in tetraline at 135°C = 3,2.

2) The ether insoluble fraction (prevailingly made of isotactic macromolecules) of the above mentioned polybutene-1.

3) A sample of ethylene-propylene copolymer having a content of propylene of 4,9 mols%.

All those samples have been molded as such, without any crosslinking agent. The polybutene samples were not vulcanized as their cross linking by peroxides was accompanied by a strong degradation.

We could have obtained a good cross linking, using also regulators of the peroxide decomposition, but we were afraid that, the presence of impurities might affect the results of your measurements.

Should you want other samples, please let me know it and I will send them at once.

Accept my renewed greetings and warm regards which I beg you to convey to Mrs. Flory.

Yours sincerely,

G. Natta

Urgente - Consegna

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

24 October 1958

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
Milano, ITALY

Dear Professor Natta:

Thank you very much for your letter and the renewal of your offer to provide us with samples for the experiments which we hope to undertake on isotactic polymers.

It would indeed be helpful to us if you could provide samples of isotactic polybutene which have been vulcanized. Sample dimensions are not critical. However, I would suggest sheets at least 10 x 5 cm. in area and approximately 1 mm. in thickness. The degree of vulcanization is not critical, although it is important that it be uniform throughout the sample. In general we like to have degrees of cross-linking in the range corresponding approximately to that which is common in vulcanized rubbers.

I presume these isotactic polybutenes are relatively free of atactic sequences, i.e., that they are genuine isotactic polymers and not stereoblock polymers. It would be interesting also for Dr. Ciferri to carry out similar stress-temperature measurements on vulcanized atactic polybutenes if these could also be made available to us.

Currently Dr. Ciferri is investigating the dependence of the intrinsic viscosity of linear polyethylene on temperature in order to compare the change in molecular conformation with temperature with the stress-temperature coefficient for the network. We would like to do similar experiments on the polybutene systems. Therefore, it would be appreciated if you could also make available small amounts of uncross-linked polymers.

You may recall I discussed with you during our visit last summer the problem of the melting of ethylene-propylene copolymers in which propylene is a minor constituent. In order to achieve the results which we desire, it is going to be very important to have copolymers in which the units are distributed at random. If such polymers are prepared by copolymerization of the olefins, it will be essential that the composition ratio of the monomers remains constant throughout the polymerization.

Because we are inclined to question whether such conditions can be achieved with certainty with current polymerization methods, we have about decided to undertake to prepare our polymers from diazokalkanes. Nevertheless, we would be interested in copolymers synthesized from the olefins if you happen to have on hand materials for which the composition should be uniform and random throughout. It would at least be interesting to compare results on such copolymers with those which we hope to obtain from the diazokalkanes. We are mainly interested in the composition range of 1 to 10% of propylene.

I am enclosing copies of the pictures which we took during our visit with you and your family last summer. They bring back pleasant memories to Mrs. Flory and me.

The paper which Drs. Hoeve, Ciferri and I gave at the ACS meeting in Chicago has not yet been prepared for publication. I shall be glad to send you a copy when we have completed this phase in our work. In the meantime, I need only say that the work which we presented was essentially the same as that which I gave at Nottingham last summer. Your willingness to assist us in providing us with samples is greatly appreciated.

Mrs. Flory and I send you and Mrs. Natta and your children our very best wishes.

Sincerely,

Paul Flory

Paul J. Flory
Executive Director of Research

Enclosures

P.S. Please note Alberto's red sweater in the reflection picture of Mount Cervenia. At first glance you may be inclined to view this picture upside down.

October 15, 1958

Prof. Paul J. Flory
Mellon Institute
4400 Fifth Avenue
Pittsburgh 13, PA.
U.S.A.

1084/mb

Dear Prof. Flory,

I have received your kind letter of October 7 and I enjoyed very much having your news. I am most regretful that you lost the role of camera film with the pictures taken on the occasion of your visit to Champoluc.

Anyway, Mrs. Natta will send you some coloured pictures we have taken, so that you will have a keepsake of the Val d'Aosta.

As for the samples of ethylene propylene copolymers and of isotactic polybutene, I wish you to let me know the amount you need of them. The simplest way would be, in my opinion, that I send you some already vulcanized samples. In the case you were interested in having sheet samples with different vulcanization degrees, I would send you some of them jointly with a brief description concerning the curing methods employed.

As soon as I shall receive informations from you about the shape and the sizes of the samples you like to receive, I will send you samples of amorphous copolymers having intrinsic viscosity between 2 and 4, of crystalline polybutene, having also intrinsic viscosity comprised between 2 and 4 and completely linear atactic polybutene (intrinsic viscosity about 1).

../.

October 15,1958

Sheet n°2

If you prefer to receive unvulcanized samples, it will be necessary to send you stabilized ones, but, in this case, the presence of stabilizers might hinder the curing with peroxydes or require a greater amount of peroxydes. Vulcanized samples are, on the contrary, stable for a long time.

I have read on "Chemical News" that you have delivered a lecture at the 134' ACS Meeting held in Chicago, concerning "The effects of restricted rotation in Polymer chains on the Elastic Properties in the Amorphous State". I should greatly appreciate if you could send me a copy of the manuscript or a reprint of such work.

Mrs. Natta joins me in sending you and to your fami= ly our best greetings and wishes.

(G. Natta)

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

7 October 1958

Professor Giulio Natta
Instituto di Chimica Industriale
Del Politecnico di Milano
Milano, ITALY

Dear Professor Natta:

It is impossible to write you without reminding you again how much Mrs. Flory and I enjoyed our memorable visit with you during the summer just passed. It was one of the high points of our trip. We shall never forget the weekend spent with you and your family in the Val d'Aosta. Our only regret is that we lost the role of camera film which included the pictures taken at the Monta Rosa Pass and during the descent to Cervenia. The pictures of the Alpine flowers are therefore lost. We do, however, have some nice views of Mount Cervenia from the reflecting pool, including Alberto after he had braved the cold waters. I will send you copies of these and other pictures which we subsequently took.

I wonder if your co-workers may have succeeded in preparing the copolymers and the cross-linked isotactic poly-(1-butene) which we discussed. I now have Dr. Richardson from Manchester with me, and would be pleased to have him undertake studies on these polymers when they are available. Perhaps you could supply us with adequate directions for the synthesis of the copolymers and also for the cross-linking of the isotactic polymer. It would, however, be most helpful if you could make the isotactic polymer available to us.

Mrs. Flory joins me in sending greetings and very best regards to you and Mrs. Natta and also to Franca and Joseph.

Sincerely,

Paul J. Flory
Executive Director of Research

USA

June 16, 1958

Prof.Paul J.Flory
MELLON INSTITUTE
4400 Fifth Avenue
PITTSBURGH - Pa. - USA

Ref.No.715/rl

Dear Professor Flory,

Many thanks for your letter of June 9. Mrs. Natta and I are looking forward to seeing Mrs.Flory and you in Milan, and we are very glad to know the good news about the Mrs.Flory's health.

Hotel Manin has been informed of your possible late arrival in the evening of the 3rd, and you can be sure that your reservation will be held for you.

With kindest personal regards, I am,

Very truly yours,

Giulio Natta

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH, PA.

9 June 1958

Professor Giulio Natta
Istitute di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
Milano, ITALY

Dear Professor Natta:

Dr. Ciferri has conveyed to me the message of your letter of the 6th and I should like to thank you for arranging a reservation for Mrs. Flory and me at the Hotel Manin. We stayed at the Hotel Manin on our previous unforgettable visit to Milano three years ago, and shall look forward to being there again.

Mrs. Flory has improved considerably in the last ten days and we are now confident that she will be able to make the trip.

It is possible that we shall not reach Milano until late in the evening of the 3rd. Should the Hotel Manin be informed of our possible late arrival in order that we may be sure that our reservation will be held for us?

Your assistance is greatly appreciated, and I also want to thank you for offering reimbursement for expenses. Such reimbursement will not be necessary; it is a privilege for me to visit your Institute and thus to become further acquainted with your staff and to learn of their current researches.

With kind personal regards, I am

Very truly yours,

Paul J. Flory

Paul J. Flory

Natta
66 7251
63 5137
63 52 00
63 51 90

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

29 May 1958

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
Milano, ITALY

Dear Professor Natta:

Thank you very much for your letter and the cordial invitation which you have extended to Mrs. Flory and me. It would be a great privilege for us to enjoy a weekend in your country house in Champoluc near Monte Rosa in the Italian Alps. We accept with the greatest of pleasure.

Mrs. Flory and I plan to arrive in Milano on the evening of July 3. Hence, we would welcome your assistance in securing a hotel reservation for the nights of the 3rd and 4th. I shall be available at your pleasure throughout the 4th, and if you wish me to deliver a seminar I shall be happy to do so on that date.

Perhaps I should mention that there is some doubt as to whether or not Mrs. Flory will be able to make the trip. Her recovery from her recent illness has been slow, which we understand to be quite normal for such cases. The doctor remains optimistic on the prospects for sufficient improvement to permit her making the trip. However, I thought I should mention to you that some uncertainty exists in this regard.

If our plans succeed, as we earnestly hope they will, the visit with you and Mrs. Natta looms as the high point of our European trip. Please be assured of our deep appreciation of your invitation.

Mrs. Flory joins me in sending warm regards and good wishes to Mrs. Natta and yourself.

Sincerely,

Paul J. Flory

Paul J. Flory

Risposta !!

Prof. Flory.

Ann

May 24, 1958

Prof.Paul J.Flory
Executive Director of Research
MELLON INSTITUTE
4400 Fifth Avenue
PITTSBURGH 13 - Pa. - U.S.A.

Ref.No.624/rl

Dear Professor Flory,

your kind letter of May 19, crossed my own of May 14, and I am very pleased to know that both you will come to Milan in the beginning of July. I and all my coworkers will appreciate very much if you may give a Seminarium at our Institute, if possible on July 4. Therefore, I should ask you if you may anticipate your coming to Milan on July 3, so that you may be in the Institute all the Friday. There are some difficulties for giving a Seminarium on Saturaday, as many people are away. Please, let me know our decision, so that I may book a double-bedded room for Mrs.Flory and you. We may contribute to your stay expenses and, possibly, also to your travel expenses in Europe to Milan.

I was sorry to know that Mrs.Flory has been ill and I am pleased to know that she is now feeling better. Mrs.Natta and I will appreciate very much in having Mrs.Flory and you our guests for week-end in our country house in Champolue, near Monte Rosa in the Alpes. If your did not see before Aosta Valley and Italian Alpen, I counsel you to take this opportunity to see them.

I and my coworkers are looking forward to discussing with you several problems about the chain flessibility. Dr.Ciferri told me something about your works carried out on the great flessibility of polyethylene chain. Our results, also agree with yours, and we find in the poly-α-olefins lower flessibilities. The great trend to crystallization of the linear polyethylene, accompanied by one of the greater known variations of density (0,85 at the amorphous state, and 1.0 at the cristalline state), has a remarkable influence on polyethylene properties. We, however, obtained excellent rubbers, having a rebound of 82% (superior, therefore, than the one of GR-S), by copolymerizing ethylene with propylene, introducing in this way, the minimum amount of the methyl branching, necessary to hinder crystallization.

We are now studying the elastic properties shown by amorphous polymers and copolymers, and their relationships with II ordre transition temperature. These seem to be in close relation with the flessibility of the chain, while the I ordre transition depends, above all, on symmetry

./.

May 24, 1958

and on the possible hindrance in the packing of the macromolecules that cause phenomena of polymorphism, with forms having different melting points.

Mrs.Natta and I are waiting with pleasure to meet Mrs.Flory and you in Milan. With kindest regards, and best wishes, I remain,

Sincerely yours,

G.Natta

1. - As to the polyethylene sample I sent to you, I wish to inform you that the secrecy that Sifferri told you, at present is not necessary. The polyethylene I sent to you is a product highly cristalline, obtained by polymerization with heterogeneous catalysts constituted by cristalline violet $TiCl_3$ (form α) and $AlEt_3$, with a number of active centers of about 6×10^{-3} centers/mol of $TiCl_3$. Although the sample sent to you has been not controlled I can assure you, on the basis of examinations on other samples obtained in the same way, that these samples do not contain methyl group in such a quantities to be remarked at the I.R.examination. Normal Ziegler polyethylene, obtained with $TiCl_4$ and alkyl Al, contains on the contrary, about 0.4 CH_3 groups/100 CH_2 groups. This is due to the fact that the Ziegler catalyst contains soluble complexes of Ti and Al, that polymerize ethylene to low polymers (α-olefins). These copolymerize with ethylene on the insoluble portion of catalyst, forming ethylene-α-olefins copolymers, that cause branching. The production of linear polyethylene by this way was patented by us in 1955 (Ital.P.N.547.314, December 9, 1955). This patent has already been published, therefore, it is not necessary any secrecy on this subject. An unbranched polyethylene may be produced also by using catalytic complexes soluble or colloidal dispersed (obtained from tetrabutoxy-Ti and alkyl Al in the ratios over 1:1). These complexes do not polymerize α-olefins, but, with ethylene, lead to a very irregular distribution of molecular weights, and to remarkable fractions with low molecular weight. For these reasons, I preferred to send you a sample obtained using catalysts obtained from the violet cristalline $TiCl_3$.

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

19 May 1958

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico di Milano
Milano, ITALY

Dear Professor Natta:

I was very sorry not to have seen you during your recent trip to this country. Dr. Ciferri has conveyed your kind invitation and I hope very much that we shall be able to accept.

Would Friday the fourth of July be a convenient date for my visit to your laboratory? If so, Mrs. Flory and I will plan to reach Milano sometime in the evening of the fourth. If it is no great inconvenience for you, we would appreciate your assistance in securing a hotel reservation for the nights of the 4th and 5th in Milano.

It was most thoughtful of Mrs. Natta to try to telephone Mrs. Flory during her illness. Mrs. Flory was sorry not to have been available at the time of the call. I am pleased to report that she is feeling somewhat better and her doctor is confident that she will be able to make the trip this summer.

I must thank you also for the reprints which you provided for me. There are a number of scientific matters which I should like to discuss with you and I look forward eagerly to the opportunity which may be afforded by our visit in July.

With kind regards and very best wishes, I am

Sincerely,

Paul J. Flory
Executive Director of Research

P.S. We have just received a sample of polyethylene which you so kindly agreed to make available to us. Dr. Ciferri mentioned that this material is not being made generally available and is subject to industrial secrecy at the present time. You may rest assured that we will not disclose this information to industrial workers in this country, and the polymer will be used only in our own fundamental research.

Thanks!

Ann.

May 14, 1958

Professor Paul J. Flory
Executive Director of Research
Mellon Institute
4400 Fifth Avenue
PITTSBURGH - Pa. - U.S.A.

Ref.No.595/rl

Dear Professor Flory,

we have just now came back to Milan after a long and interesting travel through the States, and we do regret not to have had the pleasure to meet Mrs.Flory and you.

Dr.Ciferri told me that you will come to Milan before the International High Polymer Conference of Nottingham, next July, and we hope that also Mrs.Flory will come to Italy with you. We shall be very glad to see you both in Milan.

I and many people in my Institute will be very happy to discuss with you in many fields of mutual interest, expecially in the field of the conformation of some linear polymeric chains in the liquid state.

I am sending you, uncer a separate cover, a polyethylene sample, having intrinsic viscosity = 3,89. This polymer is completely linear, unbranched.

Looking forward to seeing Mrs.Flory and you soon in Milan, we send you both our best regards and wishes.

Sincerely yours,

G.Natta

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

2 April 1958

Professor G. Natta
Claremont Hotel
Berkeley, California

Dear Professor Natta:

Dr. Ciferri has conveyed your message and kind invitation for me to visit your Institute in Milano next summer. I greatly enjoyed the previous visit and would surely welcome an opportunity to renew acquaintances with your colleagues and have the opportunity to see your new Institute. Plans for the trip next summer remain somewhat indefinite. It may be a matter of several weeks before I can give a definite answer.

I wonder if there is a possibility that you could come to Mellon Institute in connection with your current visit to the United States. I know you are extremely busy and that the demands on your time are heavy. I believe, however, that you would find a visit to Pittsburgh, and especially to Mellon Institute, rewarding and I assure you that we would do everything possible to make it so. We would make arrangements to suit any date which you might suggest.

We shall be happy to defray travel expenses in connection with such a trip, and to offer an honorarium for a lecture which we would be pleased to have you deliver.

With kind personal regards, I am

Very truly yours,

Paul J. Flory
Executive Director of Research

P.S. In the event that I would be able to include Milano in my European itinerary, I wonder if the 7th or 8th of July would be suitable for such a visit? Please accept my thanks for your most cordial invitation.

DEPARTMENT OF CHEMISTRY
YALE UNIVERSITY
NEW HAVEN, CONNECTICUT

STERLING CHEMISTRY LABORATORY
225 PROSPECT STREET

Ann.

14 July 1958

Professor Giulio Natta,
Istituto Chimica Industriale,
Politecnico di Milano,
P.zza Leonardo da Vinci, 32,
Milano.

Dear Professor Natta,

I thoroughly enjoyed my visit to your laboratory last Thursday. Would you please express my thanks to your co-worker who showed me around the laboratory. Also, my thanks for the collection of reprints which I am reading with much interest.

I hope that you will manage to stop off in New Haven on your next visit to the States; I am sure that you would find New Haven interesting.

With best regards,

Sincerely yours,

Raymond M. Fuoss

Raymond M. Fuoss

Indirizzato da Univ. di Roma - Istituto di Chimica - Fisica ed Elettrochimica

N.

UNIVERSITÀ DEGLI STUDI DI ROMA
ISTITUTO DI CHIMICA - FISICA ED ELETTROCHIMICA

Roma, li 1 luglio 1958

804

Professor Giulio NATTA
Istituto Chimica Industriale
Politecnico di
MILANO

P.zza Leonardo da Vinci, 32

Dear Professor Natta,

I expect to be in Milano next week, arriving Tuesday at 16,50. I shall be at the Hotel AURIGA, Via G.B. Pirelli. Wednesday will be spent at the research laboratory of Pirelli S.p.A. I hope that it will be convenient for you to permit me to visit your laboratory on Thursday 10 July; I am returning to Roma on the 17,45 train from Milano on Thursday.

With best regards,

Sincereli,

Raymond M. Fuoss

Raymond M. Fuoss

(Yale University)

Le non si fa in
Mercoledì giudicare / Giovedì
o Venerdì sì fa una
riunione

Ann
Sig. Pino Corp.

1° Ottobre 1958

Rif.n.1050/el

Ing. Piero GIUSTINIANI
Amministratore Delegato
Soc. Montecatini
S e d e

- Ing. Bartolomeo ORSONI
Direttore SEPS
Soc. Montecatini
S e d e

Caro Ingegnere,

con riferimento alla lettera a Lei inviata dall'Ing. Orsoni in data 27.9., desidero precisare il problema esposto dal Sig. Harrys della Dewey and Almy affinchè non vengano inviati dei campioni che non siano adatti allo scopo.

Il Sig. Harrys avrebbe gradito dei polimeri a stereoblocchi a causa della loro elasticità reversibile che si manifesta in particolari condizioni, anche se i polimeri a stereoblocchi vengono usati allo stato non vulcanizzato. Infatti la debole cristallinità posseduta dai polimeri a stereoblocchi ha un effetto paragonabile, sotto certi punti di vista, ad una vulcanizzazione.

Poichè tale cristallinità scompare per fusione e ricompare per raffreddamento, si presenta la possibilità di iniettare il polimero fuso nelle sedi delle guarnizioni ottenendo direttamente un prodotto alquanto elastico senza dover sottoporre materiali ai trattamenti termici, che sono normalmente richiesti per la vulcanizzazione nelle comuni gomme.

Ho richiesto al Sig. Harrys dei dati sulle pressioni specifiche e sulle deformazioni a cui sono sottoposte le guarnizioni di chiusura delle scatole dei cibi in conserva. Soltanto dopo la conoscenza di questi dati sarà possibile esaminare quale tipo di polimeri a stereoblocchi può essere adoperato con probabilità di ottenere dei risultati soddisfacenti.

L'impiego dei copolimeri normali etilene-propilene, che richiedono un processo di vulcanizzazione, non dovrebbe offrire vantaggi nell'applicazione rispetto alle gomme comuni. La loro maggiore resistenza all'invecchiamento non credo possa essere tuttora determinante per il loro impiego per lo scopo sopraindicato.

Cordiali saluti.

G.Natta

MONTECATINI

SETTORE PROGETTI E STUDI

Milano, 27 Sett. 1958.

Preg.mo Signore
Ing. Piero Giustiniani,
S e d e.

Il sig. Harrys della Dewey and Almy mi ha chiesto qualche campione di un kg ciascuno di copolimero etilene-propilene, da provare come guarnizione di chiusura delle scatole di cibi di conserva, in luogo della gomma.

Deve trattarsi di un prodotto che a temperatura sufficientemente alta puó essere iniettato nell'aggraffatura del coperchio delle scatole, con possibilità di essere vulcanizzato.

Il consumo americano si aggira sulle 5000 t/anno.

Analogamente a quanto facemmo con la stessa Ditta per la stiratura dei fogli di polipropilene, ho risposto che ció potrebbe essere possibile a condizione che nostri incaricati tecnici siano ammessi ad assistere alle prove.

Ing. Orsoni

Or/sl.

MONTECATINI

Settore Progetti e Studi

Milano, 19 Dicembre 1958.

Preg.mi Signori
Ing. Ballabio,
Prof. Natta,
Ing. Larcher.

1377

Polimerizzazione Hercules.

Da notizie avute in America, Hercules userebbe come solvente di polimerizzazione il ciclo-esano, le cui perdite e costo relativamente alti (riferite al polimero ottenuto) influiscono notevolmente sul costo.

f.to: Orsoni

Or/sl.

Ann.

March 30 , 1958

Mr. Manfred T. Hoffman
187 High Street
NEWBURYPORT - Massachussetts

Ref. NO. 466/rl

Dear Mr. Hoffman,

With reference to your letter of March 21, I wish to inform you that Professor Natta has already left Milan to the States.

For any information you wish about Prof. Natta's schedule, you may address yourself to : Chemore Corporation, 21 West Street, New York 6 - N.Y.

With best regards.

Sincerely yours,

R. Lamma

(secretary to Prof. Natta)

NEWBURYPORT HO 2-6784
CABLES: HOFFMAN NEWBURYPORTMASS

FELTRESEARCH SINCE 1921

CONSULTANT TO THE FELT-
AND ALLIED TEXTILE TRADES

9

FIBER PROCESSING, SYNTHETIC FELTS
SCOURING, DEPAINTING AND CARBONIZING
OF LOOSE WOOL, FELT AND FABRICS
CONTINUOUS DE-OILING OF WASTE FIBERS AND FELT
SHODDY, TANNERS WOOL, SPECIAL FIBERS
PAT. DRY CLEANING AND FELT MACHINERY
SPECIALTIES, COATING, BONDING

MANFRED T. HOFFMAN, PH. D.
187 HIGH STREET
NEWBURYPORT, MASSACHUSETTS

PRESSED AND WOVEN FELTS, FELT WHEELS
NEEDLE FELTS, COTTON FELTS, RUG CUSHIONS
SEAMLESS FELT FOOTWEAR, WAFFEL FELTS
FUR AND WOOL BODIES, HATS
HAIR-, INDUSTRIAL AND INSULATION FELTS
RUBBERIZED HAIR AND SISAL PADS, MOLDS
SHEETS, TECHNICAL AND TUBULAR FELTS

March 21, 1958

e
fortore
USA

Professor Dr. Guilio Natta,
Instituto de Chimica Industriale
Polytechnico
Piazza Leonardo da Vinci, 33
MILANO, Italy.

Dear Professor Natta:

Mr. Juan Montermoso of the Quartermaster Research & Development Command in Natick, Mass. gave me your adress so that I may get in direct contact with you regarding a meeting here or in Milano.

dando indirizzo Chemure

I have worked out a new Bonded Non-Woven fabric and believe that the new Polypropylen would fit in the manufacturing process to make it better and less expensive. Rather than explaining the matter in writing, I would like to discuss this in person while you are in this country to deliver your paper.

I understand that you intend to be both in California and New York. If you would be kind enough to inform me about your schedule while you will be in the United States, I would much like to see you at a place and time of your convenience, preferably in New York, or Boston which is nearest to me.

In case it would be impossible to meet with you while in this country, I could see you in Milano sometime during the summer as I am scheduled to visit with my European clients during 1958.

risposto

Thanking you in advance for your consideration,

Sincerely yours

M T Hoffman

Manfred T. Hoffman

MTH/R

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

922 July 31, 1958

Professor Giulio Natta
Istituto di Chimica Industriale del
Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I have your letter of July 12, and, regretfully, must accept as fully justified your criticism regarding the omission of your name in the chapter on Polymerization in Groggins' book. I only can assure you that this omission was in no way intended to diminish your outstanding contributions to the field of polymer chemistry, and particularly to the elucidation, the understanding and, in general, to the development of stereospecific polymers. It may have been, because in my mind, and in the mind of everybody who is even slightly familiar with polymers, the terms stereospecific, isotactic and syndiotactic, are so closely linked with the name of Natta, that it may not even have occurred to me to specifically link your name with these terms, it is so obvious.

Anyway, please accept my apologies; I shall arrange that at the next printing, or at the next edition, this oversight is duly corrected.

I do hope that this unfortunate incident will not interfere with the excellent personal and professional relationships with you, which I have cherished now over so many year.

With my kindest personal regards and best wishes to Mrs. Natta and yourself,

Sincerely yours,

W. P. Hohenstein per E.C.

W. Peter Hohenstein
Professor of Chemistry

WPH:EC

POLITECNICO MILANO

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, July 11, 1958

TELEF. 292.125 - 292.126
292.105 - 106 - 107

Prof. Peter W. Hohenstein
c/o Institute of Polymer
Research
Polytechnic Institute
Brooklyn, U.S.A.

Our ref.: 827/mb

Dear Prof. Hohenstein,

I have duly received the latest edition of the Groggins Handbook in which I have noticed that the subject concerning the modern achievements of polymerization has been widely discussed.

I was surprised by the fact that, while the names of some of the authors of the latest and most interesting papers in the macromolecular field (e.g. Ziegler, Price, Schildknecht, ecc.) have been duly mentioned, in the chapter "Stereospecific Polymerization", the papers issued by this Institute have been entirely ignored: not even the fact that the discovery and identification of isotactic and syndiotactic polymers is the result of our studies was mentioned.

These omissions particularly surprised me in consideration of the old friendship which exists with you and the school of Prof. Mark.

Possibly, the omission was due to a oversight and I hope that, in other occasion, the papers issued in Italy will be mentioned.

Do receive, dear Prof. Hohenstein, many greetings and friendly regards.

(Prof. G. Natta)

Ann.

July 11, 1958

Prof. Peter W. Hohenstein
c/o Institute of Polymer
Research
Polytechnic Institute
Brooklyn, U.S.A.

Our ref.: 827/mb

Dear Prof. Hohenstein,

I have duly received the latest edition of the Groggins Handbook in which I have noticed that the subject concer= ning the modern achievements of polymerization has been widely discussed.

I was surprised by the fact that, while the names of some of the authors of the latest and most interesting papers in the macromolecular field (e.g. Ziegler, Price, Schild= knecht, ecc.) have been duly mentioned, in the chapter "Stereospecific Polymerization", the papers issued by this Institute have been entirely ignored: not even the fact that the discovery and identification of isotactic and syndiotactic polymers is the result of our studies was mentioned.

These omissions particularly supprised me in consideration of the old friendship which exists with you and the school of Prof. Mark.

Possibly, the omission was due to a oversight and I hope that, in other occasion, the papers issued in Italy will be mentioned.

Do receive, dear Prof. Hohenstein, many greetings and friendly regards.

(Prof. G. Natta)

Nat

Cable Address: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EDITORIAL OFFICE

December 24, 1958

150
fot.

Dr. G. Natta
Via Mario Pafano 54
Milan, Italy

Dear Dr. Natta:

Your article "Italian Macromolecular Terminology" has been proofread by Dr. H. Mark and will appear in the January 1959 issue of the Journal of Polymer Science. If you desire to purchase reprints of this article in addition to the 50 free copies which will automatically be supplied to you, will you please complete the attached yellow sheet and return it to this office as soon as possible.

Sincerely yours,

INTERSCIENCE PUBLISHERS, INC.

Roger E. Truelsen
Manager, Periodicals Division

RET/ew

risposto 8/1/59

November 15, 1958

INTERSCIENCE PUBLISHERS, INC.
250 Fifth Avenue
NEW YORK 1 - N.Y. - U.S.A.

/rl

Re : Proofs of the paper : G.NATTA, F.DANUSSO - Nomenclature Relating to Polymer Having Sterically Ordered Structure.

Yesterday we sent to you the proofs of the above mentioned paper. In a page of these proofs a small sheet of paper was joined with a note, that, for a misunderstanding, was not completed with two greek words. We now are sending you, enclosed, the sheet completed to substitute the wrong one. Please excuse such trouble.

Best regards.

Very truly yours,

(Secretariat to Prof.Natta)

Encl/

(*) From the greek "prefixe "ἀ" non-, and the verb "τάττω" I put in order, I settle. The term "atactic" was first introduced by G.Natta during the meeting of the Gesellschaft Deutscher Chemiker at Bad Nauheim (Germany) on April 25, 1956 (Angw.Chemie, 68, 393 (1956); Chim.Industria, 38, 751 (1956)). It has a more general significance with respect to the original "anisotactic", proposed in the meeting of "Accademia Nazionale dei Lincei" in Rome (Italy) on December 11, 1954 (G.Natta, P.Corradini "Atti Accad.Nazl.Lincei" Memorie, (8) 4, 73 (1955)).

Ans.

November 13, 1958

Professor Webster B. Kay
The Ohio State Univ.,
Columbus 10, Ohio
Dept. of Engineering

1205/mb

Dear Professor Kay,

I have duly received the copy of the paper on the ethane-benzene system you were so kind to send me. Thank you very much for the very interesting work.

Very sincerely yours,

Prof. G. Natta

THE OHIO STATE UNIVERSITY
NOVICE G. FAWCETT, *President*
COLUMBUS 10

COLLEGE OF ENGINEERING
DEPARTMENT OF CHEMICAL ENGINEERING
Divisions: CHEMICAL ENGINEERING
PETROLEUM ENGINEERING

October 20, 1958

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

A copy of our paper on the ethane-benzene system is enclosed.

Thank you for your interest.

Sincerely,

Webster B. Kay

Webster B. Kay

WBK:CH

Ringraziare dell'interessante lavoro

Mi spiace o Ringraziare in ritardo!

Il lavoro è stato dato al dott. Fasi ms - 13/11/58

Ass. Mfer

2 Ottobre 1958

Mr. W.B. KAY
Ohio State University,
COLUMBUS, Ohio (U.S.A.)

Per Farina

Dear Mr. Kay,

I appreciate very much having a reprint of the work :

- W.B. Kay and T.D. Nevens, "Liquid-Vapor equilibrium relations in binary systems: the ethane benzene System - " Chem.Eng.Progr.Symposium Series, 48, n. 3, 108 (1952)

Very truly yours,

(Prof.G.Natta)

March 18, 1958

Dr. A. E. Laurence
Manager, European Office
MINNESOTA MINING AND MANUFACTURING
Central Research Department
3M House - Wigmore Street
LONDON W.1. - England

Ref. No. 402/rl

Dear Dr. Laurence,

I wish to thank you for your very kind letter of March 11, and for the invitation to visit your Company in St. Paul. I regret not to be able to accept your invitation, because, after the A.C.S. Meeting in San Francisco, I shall have to go at once to Montreal to attend the U.S.-Canada Chemical Engineering Conference (April 20-24). On April 25 I shall have to be in New York to participate to a Symposium at the Polytechnic Institute of Brooklyn. I hope to have soon an other occasion to visit your Company.

Thanking again, I send you my best regards.

Yours sincerely,

(Giulio Natta)

B O Z Z A

Mr. Dr. A.E. Laurence

Dear Mr. Laurence,

La ringrazio per la Sua lettera dell'11 marzo e per il gentile invito di visitare the Twin Cities.

Sono spiacente di non poter accettare poichè, dopo il meeting dell'A.C.S. in San Francisco, dovrò immediatamente recarmi a Montreal per partecipare all'U.S.Chemical Engineering Conference dal 20 al 24 aprile. Il 25 aprile dovrò andare a New York per un ~~xxxxxxxxxx~~ simposio al Politecnico di Brooklyn.

Mi spiace veramente e ... saluti.

SATURDAY, FEBRUARY 22, 1958

Science Unit Here Elects Milan Expert on Plastics

Prof. Giulio Natta

Prof. Giulio Natta of Italy has been elected a Fellow of the New York Academy of Sciences in recognition of his discoveries in polymer chemistry, a field related to plastics.

Professor Natta is with the Polytechnic Institute of Milan. He has developed a process for the first commercial production of a new type of polypropylene plastics.

The academy will install Professor Natta when he visits this country in April to speak before the American Chemical Society's national meeting in San Francisco, Calif.

MINNESOTA MINING AND MANUFACTURING COMPANY

CENTRAL RESEARCH DEPARTMENT
3M HOUSE
WIGMORE STREET
LONDON, W.1, ENGLAND
TELEPHONE HUNTER 5522

March 11, 1958
(dict. Mar. 6)

L.O./B-32

Prof. G. Natta,
Politecnico di Milano,
Instituto di Chimica Industriale del Politecnico,
Piazza Leonardo da Vinci 32,
Milano,
Italy.

Dear Prof. Natta,

I am sorry my visit to Italy again had to be postponed. Meanwhile I read in the New York Times of February 22, of which I attach a clipping, of the fact that you have been elected a Fellow of the New York Academy of Sciences and would congratulate you very much upon this occasion. Is there any chance of your including a visit to St. Paul in your itinerary when you are crossing the United States to attend the A.C.S. Meeting in San Francisco in April?

As I have mentioned in the past, our Seminary would be most happy to have you as a speaker and the Twin Cities are geographically half way between the two oceans and could perhaps present a good mid-way house on one of your trips across the Continent.

With kind personal regards,

Yours sincerely,

A.E. Laurence

In the absence of Dr. A.E. Laurence
Manager, European Office
Central Research

Enclosure
AEL/MAM

MINNESOTA MINING & MANUFACTURING COMPANY

GENERAL OFFICES • 900 FAUQUIER AVENUE • SAINT PAUL 6, MINNESOTA

CENTRAL RESEARCH DEPARTMENT

2301 HUDSON ROAD

SAINT PAUL 6, MINNESOTA

PLEASE REPLY TO -
3M House, Wigmore Street, London, W.1.

January 17, 1958

L.O./2E-52

Prof. G. Natta,
Instituto di Chimica Industriale,
del Politecnico,
Piazza Leonardo da Vinci, 32,
Milano,
Italy.

Dear Professor Natta,

Further to my letter of yesterday's date, to my extreme regret an urgent call to my headquarters in St. Paul has forced me to abandon my previous plans. I shall let you know after my return from the United States when I can hope to visit with you, and am sorry for the inconvenience caused by my change of plans.

Kind personal regards,

Yours sincerely,

A. E. Laurence

Dr. A.E. Laurence
Manager, European Office
Central Research

AEL/MAM

MINNESOTA MINING & MANUFACTURING COMPANY

GENERAL OFFICES • 900 FAUQUIER AVENUE • SAINT PAUL 6, MINNESOTA

CENTRAL RESEARCH DEPARTMENT

2301 HUDSON ROAD

SAINT PAUL 6, MINNESOTA

PLEASE REPLY TO -
3M House, Wigmore Street, London, W.1.

January 16, 1958

L.O./2E-52

Prof. G. Natta,
Instituto di Chimica Industriale
del Politecnico,
Piazza Leonardo da Vinci, 32,
Milano,
Italy.

Dear Professor Natta,

Thank you so much for your kind letter of January 14. I visited with Montecatini the last time I visited Italy and am not planning to discuss the question of patents so I am sure that there will be no conflict.

I am hoping to stop at the Instituto on Tuesday morning, January 21, before leaving from Milano Airport at 12.55 hours and am sorry that I will have just an hour or so, but I am returning to the United States the following week and am making a "blitz" trip through five or six cities during next week.

Looking forward to seeing you Tuesday morning,

Yours sincerely,

A. E. Laurence

Dr. A.E. Laurence
Manager, European Office
Central Research

AEL/MAM

January 14, 1958

Ref. 38

Dr. A. E. LAURENCE
MINNESOTA MINING & MANUFACTURING CO.
3M House , Wigmore Street
L O N D O N , W.1. - England

Dear Dr. Laurence,

I received your letter of January 7 (L.O./2E-52), regarding your visit to Milan. I foresee to be in Milan on January 21, and probably also on February 4, 1958.

I wish to inform you, however, that if your visit concerns with polymerizations field, it is better you address yourself to Montecatini Co, that have licenses on all my patents also abroad.

I counsel you, therefore, to come to Milan after getting in touch with this Company. You may address yourself to Dr. B. ORSONI, Direttore Settore Progetti e Studi - Società Montecatini - Via F. Turati 18 - Milano.

With my best regards.

Sincerely yours,

G. Natta

MINNESOTA MINING & MANUFACTURING COMPANY

GENERAL OFFICES • 900 FAUQUIER AVENUE • SAINT PAUL 6, MINNESOTA

CENTRAL RESEARCH DEPARTMENT
2301 HUDSON ROAD
SAINT PAUL 6, MINNESOTA

PLEASE REPLY TO -
3M House, Wigmore Street, London, W.1.

January 7, 1958
(dict. Jan. 2)

L.O./2E-52

Prof. G. Natta,
Instituto di Chimica Industriale del Politecnico,
Piazza Leonardo da Vinci 32,
Milano,
Italy.

Dear Prof. Natta,

Many thanks for your note of December 18. As I am now planning on my next Italian trip I want to be quite sure not to miss you and wonder whether you would be in Milano during the last two weeks of this month and whether there is any specific date you would like best for me to call on you. I have to go to Germany and France this month but could arrange according to your suggestion and see you, for instance, on Tuesday, January 21, or Tuesday, February 4 - Mondays are always difficult but any other weekday during those two weeks would be just as convenient to me.

Could you perhaps let me know soon so that I can make my itinerary coincide with your wishes,

With kind personal regards,

Yours sincerely,

A.E. Laurence

In the absence of Dr. A.E. Laurence
Manager, European Office
Central Research Department

AEL/MAM

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

varie
Rim.

December 16, 1958

Professor G. Natta
Direttore dell'Istituto di
Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I should like to take this opportunity to inform you that under separate cover, I am sending your the galley proofs of chapters VII and VIII of the Gaylord-Mark book.

As always, with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

N

9 Dicembre 1958

Prof.H.MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - New York, N.Y. - U.S.A.

Rif.N.1316/rl

Caro Professor Mark,

desidero informarLa che venerdì scorso ho ricevuto un plico contenente le bozze del Suo libro, dal capitolo XII compreso e con tutte le aggiunte fatte ai singoli capitoli. Non mi sono invece ancora arrivati i capitoli dal VII al XI compreso e temo che siano andati persi.

Le sarei molto grato se potesse inviarmi al più presto copia di questi capitoli che leggerei molto volentieri.

Molti cordiali saluti ed auguri.

Giulio Natta

Hem

December 5, 1958

Prof. H. Mark
Director Polymer Research Inst.,
Polytechnic Institute of
Brooklyn
333 Jay Street
Brooklyn 1, N.Y.

1303/mb

Dear Professor Mark,

I have received many requests of reprints of the lectures I delivered at the A.C.S. Meeting held in San Francisco last April of which I sent you the manuscripts in due time for the publication on Journal Polymer Science.

Therefore, I would greatly appreciate if you will inform me about the date they are expected to be published.

Such lectures as those I delivered at San Francisco, loose somewhat of interest when their publication is greatly delayed. You might be willing to care about getting them published as soon as possible?

My best thanks and regards,

Sincerely yours,

G. Natta

Ans.

December 4, 1958

Prof. H. Mark, Director
Polytechnic Institute of
Brooklyn
333 Jay Street
Brooklyn 1, N.Y.

1272/mb

Dear Professor Mark,

Thank you for your kind letter of November 25.

I shall be glad to draft a brief forward to be inserted in the book of yourself and Gaylord. Only I would like very much to read before the completed proofs, embodying also those chapters after the 6th, which I did not yet receive, although you have written me that you were sending them.

In the meantime, I wish to thank you for your letter of October 29 and the attached report on "Recent Developments in the field of elastomers for high temperature performance".

Rosita and I warmly reciprocate Mimi and your's wishes and regards.

Sincerely yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

1278

November 25, 1958

Professor G. Natta
Direttore dell'Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

The book of Gaylord and myself is now nearing completion. We both would be very glad if you kindly could consent to write a brief forward of about 1 page in which you emphasize the significance of stereospecific polymers and the probable development in the future. This would be a great honor for us. If you agree, please send it before Christmas.

Mimi joins me in extending to you and Rosita warmest personal regards and best wishes.

As always, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

POLYTECHNIC INSTITUTE of BROOKLYN

333 JAY STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

October 29, 1958

Dear Prof. Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

Ringraziare e passare a Crespi

Materiale, dato a Crespi il 1/dic. 1958

November 13, 1958

Prof. H. Mark
Polytechnic Institute of
Brooklyn
333 Jay Street
Brooklyn, 1, N.Y.

0190/mb

Dear Professor Mark,

Thank you very much for your kind letter of November 4, related to polystyrene, which confirms what I remembered myself, notwithstanding that four years have elapsed since.

I look forward to receive the rest of the galley proof you have sent to me, that I will read with much interest. As soon as reviewed I shall send them back to you.

I am,

Sincerely yours,

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

November 4, 1958

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of October 22, 1958.

Yes, of course, I remember that you told me confidentially, that you had succeeded to produce a crystalline type of polystyrene, and I asked you whether it was the same material which you described with Rigamonti in 1935 or 1936 and, you told me that, you thought it was different. This conversation took place during the Highpolymer Meeting in Milano in September 1954.

I should like to take this opportunity to inform you that, under separate cover, I am sending you the rest of the galley proofs of the Gaylord-Mark book.

Please accept my kindest personal regards and warmest best wishes.

As always, I am,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

[illegible] ottobre 1958

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

Rif.N.1168/rl

Caro Professor Mark,

Le invio, unite alla presente, le aggiunte relative ai brevetti affinchè, se Lei lo ritiene utile, possa inserirle per completare la parte riguardante i brevetti del libro "Gaylord--Mark".

La prego di scusare il ritardo dovuto al fatto che questo lavoro ha richiesto parecchio tempo. Tra pochi giorni Le invierò l'ultima parte che sta per essere completata.

Nel caso che Lei volesse inviarmi il capitolo VII ed i successivi, sarò lieto di leggerli.

Molti cordiali saluti.

Giulio Natta

Encl/

P.S. Le restituisco anche le bozze relative ai brevetti.

(Sig. M.)

22 Ottobre 1958

Rif.n.1113/el

Chiar.Prof. H. MARK
Direttore Polytechnic Institute
of Brooklyn
333 Jay Street
BROOKLYN 1, New York (U.S.A.)

Caro Professor Mark,

desidero ringraziarLa di cuore di tutti i Suoi gentili pensieri di tenermi informato delle cose più interessanti che avvengono negli Stati Uniti nel campo degli alti polimeri.
La ringrazio in particolare per l'invio degli abstracts delle pubblicazioni presentate al Meeting di Chicago dell'A.C.S.

Ieri ho ricevuto con piacere i due fascicoli del "New Yorker" che Rosita ed io abbiamo iniziato a leggere con grandissimo interesse. Sono articoli molto simpatici e molto piacevoli e fatti da una persona che ha saputo cogliere molti aspetti simpatici, sia scientifici che umani, del Suo carattere e delle Sue doti. Rallegramenti vivissimi.

Ho ricevuto anche la Sua lettera del 17 c.m. relativa al Dr. Gaylord e, sebbene l'ottobre 1959 sia molto lontano per poter sin d'ora fissare programmi precisi, La pregherei di informare il Dr. Gaylord che sarò lieto di vederlo a Milano e che cercherò di farlo invitare per un seminario o per una "lecture" al Politecnico di Milano.

Molti cordiali saluti a Mimi ed a Lei, anche da parte di Rosita.

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

October 17, 1958

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Dr. Norman Gaylord, author of the book on "Metalhydrides" and coauthor with me of a book on "Stereoregulated Polymerization" a scientist excellently informed on all recent details of stereoregulated polymerization, intends to visit Europe in October 1959. He has been a frequent, very successful lecturer at the Gordon Research Conferences and at our Symposia in Brooklyn. He is also giving regular courses at our Institute on top of his position as Assistant Research Director of the Interchemical Corporation in New York City.

During his visit in Europe he would like to contact a number of research organizations and exchange opinions on the latest events in the polymer field.

I can recommend him very highly as lecturer and seminar speaker since he has unusal knowledge of recent developments and is an excellent speaker and commentator. In case that you are interested in a visit from Dr. Gaylord, please kindly let me know or correspond with him directly at:

The Interchemical Corporation
432 West 45th Street
New York, New York

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs

Corr. (H)

October 22, 1958

Prof. H. Mark
Director of Polytechnic
Institute of Brooklyn
333, Jay Street
BROOKLYN, 1, N.York, U.S.A.

1133/mb

Polymer Research Institute

Dear Prof. Mark,

You will perhaps remember, as I do, the conversations we had here in Milan back in September 1954, in occasion of the meeting on Macromolecular Chemistry.

I was busy at that time with developing my work on the polymerization of olefins, and I recall having told you that I regretted not to have been able to present to the Meeting results of said work, which I thought of a considerable practical interest; I think I mentioned to you that I had obtained some new crystalline polymers, among which crystalline polystyrene.

I believe in fact that you are the first, or one of the first Americans to which I spoke of this particular new polymer I had obtained.

As I am interested now in establishing the approximate date of this private communication, I should be grateful to you, for dropping me a line confirming, in case you recall it, the fact that this communication took place.

Thanking you for your attention to this,

I am

Cordially yours,

G. Natta

MONTECATINI
Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

Data 17 Ottobre 1958

PROMEMORIA

RP/gl

per il Signor Prof. G. NATTA

Egregio Professore,

ho riesaminato, dopo qualche giorno di oblio, la bozza della Sua lettera per il Prof. Mark e l'ho riscritta in una forma che mi pare si presti meglio al caso, che Le accludo.

La prego di gradire i miei migliori saluti.

Piani

1 all.

1133

October 17,1958

Dear Prof. Mark,

You will perhaps remember, as I do, the conversations we had here in Milan back in September 1954, in occasion of the meeting on Macromolecular Chemistry.

I was busy at that time with developing my work on the polymerization of olefins, and I recall having told you that I regretted not to have been able to present to the Meeting results of said work, which I thought of a considerable practical interest. I think I mentioned to you that I had obtained some new crystalline polymers, among which crystalline polystyrene.

I believe in fact that you are the first, or one of the first Americans to which I spoke of this particular new polymer I had obtained.

As I am interested now in establishing the approximate date of this private communication, I should be grateful to you, for dropping me a line confirming, in case you recall it, the fact that this communication took place.

Thanking you for your attention to this, I am

Cordially yours,

October 16, 1958

Prof.H.MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1 - New York - USA

Ref.No.1087/rl

Caro Mark,

La ringrazio;moltissimo per la Sua gentile lettera del 22/9 e per l'invio degli abstracts delle comunicazioni presentate al Congresso di Chicago che mi hanno interessato moltissimo.

Desidero ringraziarLa in modo particolare per la Sua continua premura dimostrata nel tenerci al corrente di tutto quanto succede in America nel nostro campo di lavoro ed in campi affini.

Le invio in questi giorni, separatamente, le bozze del libro "Gaylord-Mark" che ho letto con molto interesse e sulle quali mi sono permesso di fare qualche piccola aggiunta bibliografica.

Molti cordiali saluti anche a Mimi da parte di Rosita e mia.

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

September 30, 1958

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

I should like to take this opportunity to thank you for your kind letter of September 10 and for the cordial invitation to visit you and Rosita at Champoluc.

Unfortunately, because of a heavy schedule of fall classes, my European trip is going to have to be shortened and, therefore, I'm afraid I shall not have the pleasure of seeing you this time.

With repeated thanks for the kind invitation, and with best personal regards, I am,

Sincerely yours,

H. Mark

HM:ff

H. Mark

Am Prof Mark

September 10, 1958

Prof. H. Mark
Kurhotels
Warmbad-Villach (Austria)

935/mb

Dear Professor Mark,

We are looking forward the pleasure of having Mimi and you our guests at Champoluc, as you promised you might have done if it were possible to conciliate it with your schedule.

Until September 22 I shall spend in our countryhouse with Rosita every week-end, by leaving Milan on Friday and coming back the next Monday. So, I shall enjoy if you will come with us to Champoluc as I will bring you by car in such days.

I have duly received the galley proof that I read with much interest. I think your book will deserve the careful attention of all chemists and will be very interesting. I shall soon send you a few comments, of which you can make use if you deem it advisable.

We have been delighted with an exceptionally fine wheather into the mountains and till now it is sunny quite all the time. Do receive the best wishes from Rosita and me.

Cordially yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

936

August 1, 1958

Professor Giulio Natta
Direttore dell'Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Please find enclosed the galleys of chapters I, II and III of the Gaylord-Mark book. As the other chapters arrive, I will send them along.

It was such a great pleasure having met you and Rosita in Nottingham and I send you, as always, my warmest personal regards and best wishes.

Very sincerely yours,

H. Mark

H. Mark

HM:ff
encl.

September 3, 1958

Prof. H. Mark
Polymer Research Institute
Polytechnic Institute of
Brooklyn
333, Jay Street
Brooklyn, 1, N.Y. U.S.A.

923/mb

Dear Prof. Mark,

During the meeting of the Committee for the Macromolecules of the IUPAC held in Nottingham, I realized that the largest part of the Members were favourable to attribute to the ~~term~~ "taxis" a too wide significance. Since I think the same, I changed a bit the paper I presented at Nottingham Conference, so that to keep into consideration the opinion of the majority.

Herewith, I send you the new text and I would appreciate very much if you kindly substitute it at the former one in view of the publication on "Journal of Polymer Science".

The above manuscript corresponds to the one, also modified, which will be issued in Italian on "La Chimica e l'Industria".

I apologize for disturbing you and I send you my best greetings and regards,

Sincerely yours,

G. Natta

All/

Mark

Dear Prof. Mark,

Durante la ri^nione della Comm. ~~xxxx~~ per le macromolecole ddll'IUPAC a Notting. ho osservato che la massima parte dei membri erano favorevoli ad unatróppo ampia estensione del significato della parola "tassia". Poichè io stesso sono dello stesso parere, ho modificato leggermenteil testo della nota che ho presentata durante la riunione a Nottingham , per tener conto del parere della maggioranza ddi presenti. Le u isco il nuovo testo che la vorrei pregare di sostituire al precedente per la pu blicazione su Journal Polymer Science Il manoscritto chd l" invie(ò corrisponde a quello pure modificato which verrà pubblicato in lingue italiana su la Chimica e l'Industria; La prego di scusareil disturbo e la prego di gradirei miei più cordiali saluti.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

923

July 31, 1958

Prof. G. Natta
Direttore dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I should like to take this opportunity to congratulate you on the stimulating lectures you presented at Nottingham and to tell you, that I have immediately sent for publication in the Journal of Polymer Science the two documents that you distributed at the Conference. I shall do my best to speed up their publication.

As always, with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

(Nomenclature!) per conseguire subito il manoscritto in Inglese (già tradotto da Pizzoni) e mandarlo a Mark. Riportare sul testo inglese le correzioni apportate sulla bozza italiana della nomenclatura da "Chimica e Industria".

KURHOTELS
WARMBAD-VILLACH
RADIOAKTIVE THERME 30° C

10/8/58

Carissimo amico!

Prof Natta

Here is another chapter in form of a galley proof; it is not yet complete. We shall be very grateful for all comments!

Sempre il Suo devotissimo

Mimi saluti a Lei e Rosita da Mimi!

H. Mark

5/8/58

Carissimo Amico!

Prof. Natta

Qui sono due "capitoli" del libro di Gaylord-Mark. Please add and correct what you want.

Cordialissime il Suo

H. Mark

5 Maggio 1958

Prof. H. Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

Ref. N. 555/rl

Caro Mark,

sono arrivato l'altro ieri a Milano dopo un ottimo viaggio e desidero innanzitutto inviare a Lei ed alla cara Mimi i più vivi ringraziamenti per tutte le cortesie e per la simpatica accoglienza che Rosita ed io abbiamo ricevuto durante il nostro soggiorno in America.

Le manderò tra qualche giorno i manoscritti delle due comunicazioni presentate al Meeting dell'A.C.S. a San Francisco, che devo far ribattere, e di cui devo far riprodurre le figure.

Le invio, unita alla presente, una breve lettera agli Editori, sui polimeri dei mokomeri vinilici contenenti silicio, con preghiera di pubblicarla sul J.Polymer Science : G.Natta, G.Mazzanti, P.Longi, F.Bernardini - Isotactic polymers of silicon-containing vinyl monomers.

Attendiamo Mimi e Lei in Italia. Molti cordiali saluti anche da parte di Rosita, che scriverà direttamente a Mimi.

Cordialmente,

G.Natta

All/ manoscritto

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

TRIANGLE 5-6412

April 23, 1958

Dear Prof. Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and best wishes I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

Risposta per lettera del 22 Marzo e per il materiale inviato.
Grazie molto
N.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

May 12, 1958

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci,32
Milano, Italy

Dear Professor Natta,

Please accept my many thanks for your kind letter of May 5, 1958 and for the very interesting note on "Isotactic Polymers of Silicon-Containing Vinyl Monomers", which we shall be very glad to accept and to print as soon as possible in the Journal of Polymer Science.

Permit me to again tell you how very much we enjoyed having you and Rosita here with us and what a tremendous success your visit was.

As always, with warmest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

Ann.

May 24, 1958

Professor H. MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

/rl

Dear Professor Mark,

many thanks for your kind letter of April 23, and for the material you sent to me.

With kindest regards, I am,

Sincerely yours,

G. Natta

8 Maggio 1958

Prof. H. MARK, Direttore
Polymer Research Institute
Polytechnic Institute of Brooklyn
333, Jay Street
BROOKLYN, 1 - N.Y. (U.S.A.)

Caro Professor Mark,

ieri l'altro Le è stato spedito il manoscritto di una comunicazione all'editore di Polymer Science sui polimeri isotattici di monomeri vinilici contenenti silicio. Per una svista il manoscritto era stato spedito prima che io lo avessi rivisto in modo definitivo. Nel caso che Lei non avesse già inviato il manoscritto alla Tipografia, La pregherei di sostituire il testo già inviatoLe con questo che Le invio oggi, che contiene qualche piccola correzione. Nel caso che il precedente manoscritto fosse già stato consegnato all'Editore, penso che si possa effettuare le lievi correzioni sulle bozze di stampa.

RingraziandoLa ancora e scusandomi per il disturbo, La prego di gradire i miei migliori saluti.

G.Natta

All.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

May 6, 1958

Professor Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Please kindly permit me to express to you my very warm thanks for your most excellent and stimulating lectures in San Francisco and here in Brooklyn. Everyone has told me how very interesting they were, and we are all extremely grateful that you could be with us.

With repeated thanks, and as always with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs

POLYTECHNIC INSTITUTE of BROOKLYN

333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

March 25, 1958

Prof. Dott. Ing. Giulio Natta
Direttore Dell 'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta,

Please kindly permit me to take this opportunity to send you for your use several announcements of the Symposium on April 26 1958, and to tell you how very much we are looking forward to having you with us that day and to hearing your lecture.

With warmest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

451

21 Marzo 1958

Egr.
Prof. H.F.MARK
Director Polymer Research Institute
Polytechnic Institute of Brooklyn
333, Jay Street
Brooklyn 1, N.J.

Caro prof.Mark

ho saputo che la Società Montecatini ha offerto alla America-Italy Society una somma per istituire una borsa di studio Montecatini per uno studente americano meritevole affinchè svolga un soggiorno di perfezionamento presso il Laboratorio del Politecnico di Milano.

Non so esattamente l'importo della borsa di studio ma credo che si aggiri su 2000 dollari che sono più che sufficienti per un anno di permanenza a Milano.

Non sono a conoscenza se vi sono altri aspiranti a tale borsa ma nel caso che Lei avesse da proporre qualche "student or graduet", La pregherei di segnalarlo alla Chemore di New York.

E' probabile che l'assegnazione della borsa abbia luogo verso la fine di aprile dopo il mio ritorno da New York da S.Francisco.

Lieto di poterLa presto rivedere a New York, le invio cordiali saluti.

(G.NATTA)

NOTES

SCIENCE • ENGINEERING • RESEARCH
FOR HUMAN WELL-BEING

THE INSTITUTE OF POLYMER RESEARCH

at

THE POLYTECHNIC INSTITUTE OF BROOKLYN

cordially invites you to attend a

SYMPOSIUM

on

"STEREOSPECIFIC SYNTHESES"

Chairman:

PROFESSOR GIULIO NATTA
Istituto Politecnico di Milano
Milano, Italy

Discussion Leader:

DR. C. E. SCHILDKNECHT
Stevens Institute of Technology
Hoboken, New Jersey

SATURDAY, APRIL 26, 1958

SCIENCE • ENGINEERING • RESEARCH
FOR HUMAN WELL-BEING

The Symposium will be held in the Students' Lounge of the Institute, 99 Livingston Street, Brooklyn 1, New York.

POLYTECHNIC INSTITUTE OF BROOKLYN
99 Livingston Street Brooklyn 1, New York

The Institute may be reached from Manhattan by taking any subway train to "Brooklyn Borough Hall" station. 99 Livingston Street is directly behind the Municipal Building.

Program

"STEREOSPECIFIC SYNTHESES"

SATURDAY, APRIL 26, 1958

10:00 A.M.

G. NATTA
Istituto Politecnico di Milano
Milano, Italy
"Introductory Remarks"

10:10 A.M.

C. G. OVERBERGER
Polytechnic Institute of Brooklyn
Brooklyn, New York
"Recent Research in Heterogeneous Polymerization"

10:50 A.M.

G. NATTA
Istituto Politecnico di Milano
Milano, Italy
"Kinetics of Stereospecific Propylene Polymerization"

11:40 A.M.

H. N. FRIEDLANDER
Standard Oil Company
Whiting, Indiana
"Promoted Molybdena-Alumina Catalysts in Ethylene Polymerization: Preliminary Kinetics Study"

12:30 P.M.

Discussion

The Symposium will be held in the STUDENTS' LOUNGE of the INSTITUTE, 99 Livingston Street, Brooklyn 1, New York.

•

The Institute may be reached from Manhattan by taking any subway to "Brooklyn Borough Hall" station. 99 Livingston Street is directly behind the Municipal Bldg.

THE POLYTECHNIC INSTITUTE OF BROOKLYN

99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

February 24, 1958

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of 17/2/58.

We are all very glad and delighted that you and Rosita will be in New York on April 25 and 26, 1958. We are preparing for these two days the following events:

(1) Friday, April 25, 1958 at 5:00 p.m. Reception in your Honor at the New York Academy of Sciences at 2 East 63rd Street in New York. The President of the Academy will welcome you but there will be no scientific lecture and no other speeches. This reception is mainly to give the scientists in the New York area the pleasure and privilege to meet you and Rosita.

(2) A Symposium on "Stereospecific Syntheses" from 10:00 a.m. to 1:00 p.m. in which you will be the guest of honor and principal speaker. The two other speakers will be the Head of our Chemistry Department, Dr. Overberger and Dr. Friedlander of Standard Oil. Dr. Schildknecht will lead the discussion. We all would be very much obliged to you if you could speak on "Kinetics of stereospecific polymerization" for about 45' in any language you want. If it is French or Italian, I shall make brief remarks in English as we did it in Notre Dame two years ago.

After the Symposium the Institute will give a buffet lunch in your honor and in the evening Mimi and I would like to have Rosita and you with a few friends as our guests.

Looking forward with much pleasure to seeing you, I am, in the meanwhile, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

Meeting ACS
mi ricordi

11 Marzo 1958

Prof. H.F. MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333, Jay Street
BROOKLYN, 1 - New York - U.S.A.

Ref.No.386/el

Caro Professor Mark,

ho saputo dal Prof. Bryant che Lei sarà Chairman della Sezione che si terrà nella mattinata del 15 aprile, e ne sono lieto. Desidero inoltre ringraziarLa anche della Sua gentilissima offerta di fare una traduzione della mia conferenza, nel caso che io desiderassi tenerla in italiano o francese. Le sono molto grato e penso che il Suo aiuto sarà utilissimo se vi saranno discussioni. Ho già fatto preparare una traduzione in inglese della mia conferenza e potrei provare a leggerla in ingle io stesso.

Desidero ora chiederLe un'informazione riguardo alla lettura che terrò al Politecnico di Brooklyn. Le sarei grato se mi face sapere se posso usare per le proiezioni slides di misura 2" x 2" (esterna) e cioè 1" x 1,5" (interna), dato che questa è la misur normalmente usata in Europa.

In attesa di rivedere presto Mimi e Lei, Rosita ed io inviamo i nostri migliori saluti.

G.Natta

Conferenze

17 Febbraio 1958

Chiar.mo Prof. H.MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333, Jay Street
BROOKLYN, 1 - N.Y. - U.S.A.

Rif.n.265/rl

Caro Professor Mark,

La ringrazio molto della Sua lettera del 20 gennaio, e La informo che partirò da Milano verso il 6 di Aprile per la California, dove rimarrò sino alla fine del Meeting dell'A.C.S. in San Francisco.

Il 20 Aprile andrò in Canadà a Montreal, dove resterò sino al 23 Aprile. Il 24 sera arriverò a New York e sarò molto lieto di dedicare il 25 ed il 26 Aprile al Simposio dell'Accademi delle Scienze di New York.

La pregherei di comunicarmi quale argomento preferisce che venga svolto in tale simposio. Potrei parlare sulla cinetic della polimerizzazione stereospecifica, ed in particolare sui di versi processi di rottura e trasferimento di catena; come pure potrei parlare delle relazioni tra struttura e stereospecificità dei catalizzatori.

Siccome quest'ultimo argomento verrà svolto in parte a Meeting dell'A.C.S., penso che il primo argomento possa essere preferibile.

Rosita verrà con me in America e sarà molto lieta di rivedere Mimi e Lei.

I nostri più cordiali saluti.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

January 20, 1958

Professor Giulio Natta, Director
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of January 9, 1958. We are all looking forward very much to your lecture in San Francisco in April; I shall have the honor to be chairman, and shall see you there.

Would Saturday, April 26th, be convenient for you for a Symposium and a reception at our Institute? We would be very pleased and honored if you could reserve this day and the evening of Friday, April 25th for the New York Academy of Science and for our Institute. Please kindly let me know whether these two days suit you.

Mimi asks that I extend her warmest wishes for Rosita, and I am, as always with kindest personal regards and best wishes to you,

Very sincerely yours,

H. Mark

H. Mark

HM:BL

March 4, 1958

Ref.N.346/rl

Professor H.F.MARK - Director
Polymer Research Institute
Polytechnic Institute of Brool
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

Dear Professor Mark,

Many thanks for your kind letter of February 26, and for your sending to me translations of some papers, that will be of interest to us.

Awaiting the pleasure of meeting you in the States, and I send you my best wishes.

Sincerely yours,

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

February 26, 1958

Professor Dott. Ing. Giulio Natta
Direttore Dell'Instituto di Chimica
Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

May I please kindly take this opportunity to write you that I have been pleased to send you today, under separate cover, translations of the following:

1) Eighty six abstracts from the IXth Congress on the Chemistry and Physics of High Polymers held in Moscow in January of 1957.

2) E.L. Gefter's, "Unsaturated Esters of Acids of Phosphorus".

3) K.A. Andrianow's "News in the Field of Synthesis of Heterogeneous Inorganic-Organic Polymers".

In the hope that this material will be of interest and of use, and with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs

28 Febbraio 1958

Chiar.mo Prof. H.MARK
Direttore Polymer Research Insti
Polytechnic Institute
of
BROOKLYN, 1 - N.Y.
333, Jay Street

Rif.n.321/el

Caro Mark,

La ringrazio per la Sua gentile lettera del 24 c.m. e del programma che Lei ha organizzato a New York e a Berkel

Prevedo di arrivare il giorno 24 aprile da Montreal a New York e quindi il Suo programma si inquadra perfettamente con il mio programma di viaggio.

Lieto di poterLa presto rivedere, La prego di gradire insieme a Mimi i più cordiali saluti di Rosita ed i miei, con i nostri ringraziamenti.

G.Natta

21 Gennaio 1958

Professor H. MARK
Director Polymer Research Inst.
Polytechnic Institute of Brooklyn
333 Jay Street
B R O O K L Y N 1 - N.Y. - USA

Caro Professor Mark,

La ringrazio molto della Sua gentile lettera del 15 u.s. e della fotografia del bellissimo quadro che Mimi ha voluto farmi. Sono molto confuso e molto onorato e La prego di porgerle i miei più vivi ringraziamenti e rallegramenti per la sua abilità di pittrice.

In Aprile verrò in America; andrò direttamente con la linea polare a San Francisco per il Meeting dell'American Chemical Society, ed al ritorno passerò certamente da New York con Rosita e vérremo a trovarvi.

Molti cordiali saluti a Mimi ed a Lei anche da parte di Rosita.

Suo

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

January 15, 1958

Professor G. Natta
Director
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of December 18, 1957. Of course, we shall be very glad to get a Review paper on your work for the Journal of Polymer Science. I think it is a very good idea to publish the individual papers in Italian and then put them later in English in the form of a review paper.

Please accept, also, my best congratulations on your election as Fellow of the New York Academy of Science.

In our new Institute, I hope to have pictures of famous polymer chemists; Mimi made a portrait of you. Here is a photo of it attached. I hope you can see it soon in person.

With every good wish for the new year, and always with kindest personal regards, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:BL
ENCL

Gennaio 9, 1958

Professor H. MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

Rif. N. 16/rl

Caro Professor Mark,

La ringrazio vivamente per la Sua gentile lettera del 31.12.1957.

La informo che penserei di venire negli Stati Uniti nel mese di Aprile, giungendo direttamente a San Francisco con la linea "polare". Dopo il Meeting dell'ACS penserei di restare ancora qualche giorno in California e potrei ritornare nell'Est verso la metà della settimana successiva a tale Meeting. Poichè mi dovrò fermare qualche giorno a Washington, potrei utilizzare gli ultimi giorni della settimana in tale città, e potri perciò disporre di qualche giorno a New York alla fine di Aprile.

Ho avuto molti inviti da parte di Società chimiche americane, ma non ho ancora deciso quali accettare, desiderando ritornare al più presto a Milano.

Lieto di vederLa presto in America, Le invio i migliori saluti ed auguri.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

December 31, 1957

Prof. Dott. Ing. Giulio Natta
Direttore dell'Istituto di Chimica Industriale
Del. R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

I am very eager to write you how very glad we all are that you have been made a fellow of the New York Academy of Science, and how very much we are looking forward to April and honoring you by a special Symposium at our Institute and a Reception at the Academy of Sciences.

In the meanwhile, may I offer my deep and sincere good wishes for your health and continuing great achievement in the New Year, and remain with kindest personal regards,

Very sincerely yours,

H. Mark

H. Mark

HM:BL

QMREL-CE 17 December 1957

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

During my visit to your laboratory on 7 October 1957, you expressed interest in fluorinated monomers of perfluoropropylene, $CF_3 CF = CF_2$ and vinylidene fluoride, $CF_2 = CH_2$. I stated that I would try to investigate the possibilities of sending you small amounts of these chemicals when I got back to the United States.

I regret that I could not send these monomers due to the hazards and difficulties involved in shipping. After seeing the wonderful facilities you have at the Istituto, I believe that you can readily synthesize them in your laboratories. The following information may be of some assistance if you decide to make them:

1. Synthesis of perfluoropropylene. ($CF_3 CF = CF_2$)
The starting material is perfluorobutyric acid which is commercially available. Make the sodium salt of perfluorobutyric acid. Dry and then heat at 180 to 200° C resulting in the formation of sodium fluoride, carbon dioxide, and perfluoropropylene. The sodium fluoride is a solid and the others are gases. Pass the mixture of CO_2 and $CF_3 CF = 2$ through soda lime to absorb the CO_2.

$$CF_3CF_2CF_2COOH \xrightarrow{Na} CF_3CF_2CF_2COONa$$
$$\downarrow \text{Heat } (180-200°C)$$
$$NaF + CO_2 + CF_3CF=CF_2$$

2. Synthesis of vinylidene fluoride ($CF_2 = CH_2$)
The starting material is vinylidene chloride which is commercially available. React with hydrogen fluoride to form difluorochlorosethane. Crack by passing through a hot tube at 400° C, giving off HCL.

$$2\,CH_2=CCl_2 + 2\,HF \longrightarrow 2\,CH_3CF_2Cl + HCl$$
$$\downarrow \text{Pass through hot tube at } 400°C$$
$$2\,CH_2=CF_2 + HCl$$

QMREL-CE

17 December 1957

The QMC is very much interested in fibers made from your Isotactic Polypropylene. I understand that Montecatini Company has licensed some small company there in Milan or someplace in Italy to produce fabrics from this polymer. Could you possibly give us the name and address of the company producing this type of fabric under license from Monticatini?

With best personal regards.

Very truly yours,

Juan C. Monteromoso

JUAN C. MONTERMOSO, Chief
Elastomer Branch
Chemicals & Plastics Division

March 21, 1958

Dr. Wheeler McMILLEN
Farm Journal, Inc.
Washington Square
PHILADELPHIA 5 - PA; - U.S.A.

Ref.No.447/rl

Dear Dr. McMillen,

Many thanks for your very kind letter of February 26, 1958. → al Prof.

I shall leave Milan next week to the States, but I regret not to be able to meet you, as my travel schedule through the States is very tight. In any way, I wish to thank you for your kind offer of helping me in such an occasion.

With best personal regards, I remain,

Sincerely;

Giulio Natta

FARM JOURNAL, INC.

WASHINGTON SQUARE -:- PHILADELPHIA 5, PA.

WHEELER McMILLEN

February 26, 1958

Professor and Mrs. Natta
Via Mario Pagano 54
Milan, Italy

Dear Professor and Mrs. Natta:

The enclosure from the New York Times may not have come to your attention. I am delighted to know that this honor is being conferred.

I hope that both of you will be visiting our country on this occasion, and that it may be my privilege to see you while you are here. You will be quite busy, and I have some travel commitments during April, but perhaps an opportunity to meet may be found.

If there is anything I can do for you in connection with your trip, or in advance of it, please permit me to know what it is. I shall hope to be more successful than on the regrettable former occasion.

I continue to recall your kindness to me in Milan. It remains among the happier memories of recent years.

With all good wishes,

Sincerely,

Wheeler McMillen

Wheeler McMillen

WMcM/fcb

risposto - 21 marzo
spiacente di non poterlo
incontrare - ma il programma
è troppo denso -

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, L.I., N.Y.
TEL. YAPHANK 4-6262

REFER:

June 12, 1958

Professor Giulio Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

It was with regret that I learned from your letter of May 8th that your Institute is closed during the month of August. Unfortunately, I can not extend my stay in Italy until September, and therefore I must forego the pleasure of visiting with you. Perhaps some other time we may have the opportunity of meeting.

Sincerely yours,

Donald J. Metz

Donald J. Metz
Radiation Catalysis Proj.

DJM:gfs

May 8, 1958

Mr. Donald J. Metz

Radiation Catalysis Proj.
Brookhaven National Laboratory
Associated Universities, Inc.

UPTON, L.I., N.Y., U.S.A.

Ref. No. 546/rl

Dear Mr. Metz,

with reference to your letter of April 25, 1958, I am sorry to inform you that on August 23, 1958, our Institute is closed for summer holidays.

If you may delay your visit to Milan after September 1, I shall be glad to meet you.

With my best regards.

Sincerely yours,

G. Natta

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, L.I., N.Y.
TEL. YAPHANK 4-6262

REFER:

April 25, 1958

Professor Giulio Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I listened with great interest to your presentation on the mechanism of heterogenous polymerization catalysis, delivered before the American Chemical Society at San Francisco last week. I will be traveling in Italy this summer with my wife and I would like the opportunity of visiting with you at your laboratory for a few hours while I am at Milan.

?! According to my present plans, I will arrive in Milan on Saturday, August 23rd and remain there until the afternoon of Tuesday, August 26th. I would appreciate it very much if I could visit you and see your laboratory some time on Monday, August 25th. If you will not personally be at your laboratory on this day, perhaps it would be possible for me to talk with one of your close associates.

I trust that you had a safe and pleasant voyage home, and hope that your work continues well.

Very sincerely yours,

Donald J. Metz

Donald J. Metz
Radiation Catalysis Proj.

DJM:gfs

HEADQUARTERS QUARTERMASTER RESEARCH & DEVELOPMENT COMMAND
QUARTERMASTER RESEARCH & DEVELOPMENT CENTER, US ARMY
NATICK, MASSACHUSETTS

In reply refer to:

QMREL-CE 095

28 February 1958

Professor G. Natta
Instituto di Chemica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

I am indeed very grateful for the information on the development of fibres from isotactic polypropylene. As stated previously, we are very much interested in polypropylene fabrics and films for military applications. I'll contact the Polymer Company, a Consociate of Montecatini.

According to the recently announced program of the meeting of the American Chemical Society to be held in San Francisco, California in April, you are going to present several very interesting technical papers dealing with catalysis and stereospecificity of polymers. I am scheduled also to present a paper and will be looking forward to meeting you again.

Arrivederci, in Aprile.

Very truly yours,

Juan C. Montermoso

JUAN C. MONTERMOSO
Chief, Elastomer Branch
Chemicals & Plastics Division

January 25, 1958

Mr. Juan C. Montermoso, Chief
Elastomer Branch-
Chemicals & Plastics Division
Quartemaster Research & Dekelopm
Center - US Army
N A T I C K - Mass. - U.S.A.

Ref. N. 60/rl

Dear Mr. Montermoso,

I received just now your letter of December 17, 1957. Many thanks for the information you very kindly sent to me, in regard to the methods of synthesizing fluorinated monomers.

In regard to your requests of isotactic polypropylene fibr I wish to inform you that the fibres productions is till now in a research and development stage. Montecatini Co. itself is carrying out these researches, and has not licensed any Company in Italy or abroad, to produce fabrics from this polymer? I am sorry, therefore, not to be able to give you the requested addresses. All the studies on polypropylene ~~fabrics~~ are carried out from Polymer Co., a Consociate of Montecatini. Its address is the same of Montecatini Co. : Via F. Murati 18 - Milano (Italy).

With best personal regards.

Sincerely yours,

G. Natta

HEADQUARTERS QUARTERMASTER RESEARCH & DEVELOPMENT COMMAND

QUARTERMASTER RESEARCH & DEVELOPMENT CENTER, US ARMY

NATICK, MASSACHUSETTS

In reply refer to: QMREL-CE

date 17 December 1957

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

During my visit to your laboratory on 7 October 1957, you expressed interest in fluorinated monomers of perfluoropropylene, $CF_3CF = CF_2$ and vinylidene fluoride, $CF_2 = CH_2$. I stated that I would try to investigate the possibilities of sending you small amounts of these chemicals when I got back to the United States.

I regret that I could not send these monomers due to the hazards and difficulties involved in shipping. After seeing the wonderful facilities you have at the Istituto, I believe that you can readily synthesize them in your laboratories. The following information may be of some assistance if you decide to make them:

1. Synthesis of perfluoropropylene. ($CF_3CF = CF_2$)
The starting material is perfluorobutyric acid which is commercially available. Make the sodium salt of perfluorobutyric acid. Dry and then heat at 180 to 200° C resulting in the formation of sodium fluoride, carbon dioxide, and perfluoropropylene. The sodium fluoride is a solid and the others are gases. Pass the mixture of CO_2 and $CF_3CF = {}_2$ through soda lime to absorb the CO_2.

$$CF_3CF_2CF_2COOH \xrightarrow{Na} CF_3CF_2CF_2COONa$$
$$\downarrow \text{Heat } (180-200°C)$$
$$NaF + CO_2 + CF_3CF = CF_2$$

2. Synthesis of vinylidene fluoride ($CF_2 = CH_2$)
The starting material is vinylidene chloride which is commercially available. React with hydrogen fluoride to form difluorochloroethane. Crack by passing through a hot tube at 400° C, giving off HCl.

$$2\,CH_2 = CCl_2 + 2\,HF \longrightarrow 2\,CH_3CF_2Cl + HCl$$
$$\downarrow \text{Pass through hot tube at } 400°C$$
$$2\,CH_2 = CF_2 + HCl$$

QMREL-CE

17 December 1957

The QMC is very much interested in fibers made from your Isotactic Polypropylene. I understand that Montecatini Company has licensed some small company there in Milan or someplace in Italy to produce fabrics from this polymer. Could you possibly give us the name and address of the company producing this type of fabric under license from Monticatini?

With best personal regards.

Very truly yours,

Juan C. Monteromoso

JUAN C. MONTERMOSO, Chief
Elastomer Branch
Chemicals & Plastics Division

January 14, 1958

Mr. Raymond Hopper, President
NATIONAL CHEMICAL COMPANY
Patesson 4 - 463 Broadway
New Jersey - U.S.A.

Dear Mr. Hopper,

Many thanks for your kind letter of November 27, that I received only at the end of December, and for your sending to me a sample of "para Toluene Sulfonic Acid Monohydrate".

With best regards, I am,

Sincerely yours,

(Prof. G. Natta)

National Chemical Company

NAT-CHEM

463 BROADWAY
PATERSON 4, N. J.
PHONE LAMBERT 3-6343

November 27, 1957

Prof. Giulio Natta
Milan Polytechnic Inst.
Piazza Leonardo Da Vinci
Milano, Italy

Dear Professor:

We are pleased to enclose the article contained in the Oil, P aint and Drug reporter.

We trust that our correspondence may be the beginning of a mutual advantageous relationship.

Cordially yours

National Chemical Company

by J. Raymond Hopper

J.Raymond Hopper
President

JRH/c
Encl.

rimanesione anche lei - il compiano

Am. Overberger

24 Settembre 1958

Rif.N.1018/rl

Dr.Alberto Malatesta
Polytechnic Institute of Brooklyn
Department of Chemistry
99 Livingston Street
BROOKLYN 1 - New York - N.Y. - USA

Egregio Dottore,

ho ricevuto la Sua lettera del 17 u.s., relativa al reprint del nostro lavoro riguardante la struttura e la preparazione del β-$TiCl_3$, e Le confermo che detto reprint è stato inviato in data 2 u.s. dal Dr.Mazzanti. Penso perciò che in questo frattempo Le sarà arrivato.

Ringrazi il Prof.Overberger dei suoi saluti che ricambio cordialmente. I migliori saluti.

(Prof.G.Natta)

P.S. - Nel caso che tale estratto sia andato perso, Le invio separatamente, per via aerea, una seconda copia. (N 250)

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

DEPARTMENT OF CHEMISTRY

17 Settembre 1958

2018

Prof. G. Natta
Istituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci, 12
Milano, Italia

Egregio Professore,

mi dispiace disturbarla per cosa di cosi poca importanza ma sono costretto a farlo dato che la mia lettera scritta al Dr. Mazzanti il 14 Agosto u.s. per richiedere un reprint del Suo lavoro riguardante la struttura e la preparazione del β-$TiCl_3$, da Lei ricordato nella Sua conferenza tenuta qui da noi lo scorso Aprile, e' rimasta a tutto oggi senza risposta.

Trovandoci nella necessita' di preparare del β-$TiCl_3$ e non arrivando qui a New York copia dei Rendiconti dei Lincei, il Prof. Overberger mi ha incaricato di richiederLe un reprint di detto lavoro o, se questo fosse ancora in corso di stampa, di avere attraverso la Sua cortesia il metodo di preparazione.

Il Prof. Overberger mi incarica di porgerLe i suoi saluti che io unisco ai miei assieme al mio grazie.

Cordialmente suo

Alberto Malatesta
Research Associate

N250

AM:k

9/9

FORTSCHRITTE DER HOCHPOLYMEREN-FORSCHUNG
ADVANCES IN POLYMER SCIENCE

(SPRINGER-VERLAG/BERLIN · GÖTTINGEN · HEIDELBERG)

PROF. C. G. OVERBERGER
POLYTECHNIC INSTITUTE OF BROOKLYN

BROOKLYN 1, New York/USA,
99 LIVINGSTON STREET

June 12, 1958

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your nice letter. I am very glad that you had a safe trip back to Italy.

A number of months ago you will remember that I approached you about the possibility of writing an article for a new review journal sponsored by Springer-Verlag, of which I am one of the American editors. You may recall that you indicated your willingness to write an article but that your present commitments for writing review articles were already made to Italian journals. I have asked Springer-Verlag if they would consider re-publication and they have not been too anxious to do this -- I can readily understand their viewpoint.

I wonder if you would be willing to write a short critical review on some new phase of your work which may have been covered in a general way in some of your general review articles, but may not have been covered in a specific and critical way. As you will note from the enclosed brochure, these articles need not be long or comprehensive, but are to be of the short-critical type.

I hope you have a very pleasant summer and my very best regards to you and Mrs. Natta.

Sincerely,

Charlie

C. G. Overberger

cgo-h
enc.
airmail

Mr Natta
a Milano

POLYTECHNIC INSTITUTE of BROOKLYN
99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

TRIANGLE 5-6412

May 27, 1958

Professor G. Natta
Instituto di Chimica Industriale
del Politechnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Enclosed you will find a letter addressed to you from the University of Pennsylvania which should have been delivered to you when here.

As you know, we recently moved our offices from 99 Livingston Street to 333 Jay Street, during which process evidently this letter became misplaced and has only just turned up.

We regret this oversight very much and trust it has caused you no inconvenience.

Very truly yours,

Katherine Hunt

Katherine Hunt,
Secretary to Dr. C. G. Overberger

enc.

airmail

Ans.

May 20, 1958

Professor C.G.OVERBERGER
Polytechnic Institute of Brooklyn
99 Livingston Street
BROOKLYN 1 - N.Y. - U.S.A.

Ref.No.615/rl

Dear Professor Overberger,

at my coming back from my interesting travel through the States, I had to leave again Milan, almost immediately, to go to Ferrara, Terni and Rome; therefore, I ~~cannot~~ not able write to you as soon as I wished. In the plants of Ferrara and Terni I found remarkable progresses in regard to what had been done before my leaving to the States. The production of the different polymers is evolving towards technological results which will allow the production of extraordinarily cheap products.

Please excuse if I delayed to thank you for all the kindnesses extended to us in San Francisco, and for your kind hospitality in Brooklyn and at your beautiful home. Please convey my deepest thanks to Mrs.Overberger, who is more and more charming. I hope to have the pleasure of meeting you in Nottingham, and Mrs. Natta and I regret that Mrs.Overberger cannot come with you and visit us in Italy. However, I have been informed that the International Symposium on High Polymers in 1959, will be held in Germany, and I do hope that in such occasion both you may come to Europe and also to Italy.

With my kindest regards and wishes, I remain,

Sincerely yours,

G.Natta

September 16, 1958

Mr. Linus Pauling
3500 Fairpoint Street,
Pasadena, California
U. S. A.

/mb

Dear Prof. Pauling,

Thank you so much for the book "No more war" you kindly sent me. I went through the whole book during four consecutive evenings so interested I was in it.

The data you reported in it enabled me to see clearly the now-a-days knowledge on the problem, so much discussed in our time, of the effects of small quan= tities of high energy radiations on the human beings.

Some of my colleagues physicists, that I formerly asked for advice, seemed to have such opposite ideas on the matter that I could not help remaining with my confused opinion. Only now, after reading your exposition, the real situation becomes quite evident to me.

I appreciate very much the worthy feelings which lead you to devote yourself to holding fast to such a noble aim and I join you in wishing that you will succeed very soon in it.

Do receive, dear Prof. Pauling, together with my most sincere thanks, my warmest wishes and regards.

Yours sincerely,

Prof. G. Natta

Inglese

B O Z Z A

Champoluc 15/9/1958

Prof.Pauling

Dear Professor Pauling,

La ringrazio vivamente di avermi gentilmente inviato il libro "No more war" che ho letto avidamente ed ho finito in quattro sere consecutive.

In esso sono esposti molto chiaramente dei dati che consentono di farsi una chiara idea sulle attuali conoscenza sul problema tanto dibattuto dell'effetto di piccole quantità di radiazioni ad alta energia sull'umanità (human beings).

I colleghi fisici che avevo sentito in passato avevano dimostrato parere molto discorde, cosicchè non ero riuscito a farmi prima d'ora una chiara idea in proposito.

Apprezzo i nobili sentimenti che l'hanno spinto a dedicarsi a tale campagna nella quale sono convinto riuscirà ad ottenere risultati;positivi.

La prego di gradire, caro Prof.Pauling, i sensi della mia stima ed i miei migliori saluti.

G.Natta

scritto a Giordani N° 1878 il 8/11 - Aspettare risposta

Linus Pauling
3500 Fairpoint Street, Pasadena, California
U.S.A.

20 October 1957

Dear Dr. Natta:

On 15 May 1957, with the help of Professors Barry Commoner and Edward U. Condon (no organization was involved), I wrote an appeal to the governments and people of the world to reach an international agreement to stop the testing of nuclear bombs, as a first step toward a more general disarmament and the ultimate effective abolition of nuclear weapons. Within a short time this appeal had been signed by more than 2000 American scientists.

The problem of averting the impending catastrophe of a great nuclear war still exists. The scientists of the world must continue to do their part in the search for a solution to this problem.

I have decided to ask scientists in all of the member nations of the United Nations to subscribe to the appeal. I enclose a copy of the appeal. It should be changed by deleting the word American in the title and the first line, or by replacing it with the adjective describing your nationality.

I hope that you will sign your name to this appeal and will also obtain the signatures of other scientists in your country. The list of the signers of the appeal should be sent to me, at the address given at the top of this letter, before 1 December 1957. At some time after that date I propose to make a statement about the appeal to the United Nations and to the nations that are testing nuclear weapons.

I hope that you can sign this appeal and obtain the signatures of other scientists.

Sincerely yours,

Linus Pauling

Linus Pauling:RJH

P.S. I should be pleased to have a copy of your translation of the appeal into the language of your country.

P.P.S. This letter is being sent to the following scientists in your country:

Prof. L. Cambi
Prof. D. D'Antona
Prof. M. Giordani
Dr. M. Simonetta
Prof. S. Bezzi
Prof. E. B. Chain

Telefonare Prof. De Marchi

fin fine

Chiedere al Prof. Pauling

da allo g a

Italian

AN APPEAL BY ~~AMERICAN~~ SCIENTISTS TO THE GOVERNMENTS AND PEOPLE OF THE WORLD

WE, the ~~American~~ Italian scientists whose names are signed below, urge that an international agreement to stop the testing of nuclear bombs be made now.

Each nuclear bomb test spreads an added burden of radioactive elements over every part of the world. Each added amount of radiation causes damage to the health of human beings all over the world and causes damage to the pool of human germ plasm such as to lead to an increase in the number of seriously defective children that will be born in future generations.

So long as these weapons are in the hands of only three powers an agreement for their control is feasible. If testing continues, and the possession of these weapons spreads to additional governments, the danger of outbreak of a cataclysmic nuclear war through the reckless action of some irresponsible national leader will be greatly increased.

An international agreement to stop the testing of nuclear bombs now could serve as a first step toward a more general disarmament and the ultimate effective abolition of nuclear weapons, averting the possibility of a nuclear war that would be a catastrophe to all humanity.

We have in common with our fellow men a deep concern for the welfare of all human beings. As scientists we have knowledge of the dangers involved and therefore a special responsibility to make those dangers known. We deem it imperative that immediate action be taken to effect an international agreement to stop the testing of all nuclear weapons.

Linus Pauling	Martin Kamen	Severo Ochoa
Barry Commoner	Edwin C. Kemble	C. C. Price
Edward U. Condon	I. M. Kolthoff	Arthur Roberts
Charles D. Coryell	Chauncey Leake	M. L. Sands
Leslie C. Dunn	S. E. Luria	Verner Schomaker
Viktor Hamburger	Max Mason	Laurence H. Snyder
Michael Heidelberger	Carl V. Moore	Oswald Veblen
I. H. Herskowitz	Philip Morrison	M.B. Visscher
Herbert Jehle	Hermann J. Muller	W. H. Zachariasen

List additional signers below, and on the reverse side of this sheet. Please air mail to —
Linus Pauling, 3500 Fairpoint Street, Pasadena, California, to arrive by ~~June~~ Dec 1, 1957.

NAME *(Please print or write legibly)*	PROFESSION	CITY
Giulio Natta	Univ. Prof.	Milan
Piero Pino	Univ. Professor.	Pisa

Consiglio Nazionale delle Ricerche

IL PRESIDENTE

Roma, 12 Novembre 1957

prot. n° 1214/P

Caro Natta ,

ho ricevuto la tua lettera dell'8 novembre e sono molto perplesso a darti un consiglio poiché non ho ancora io stesso deciso come regolarmi nei riguardi dell'iniziativa di Pauling.-

E' indubitato che tutti questi movimenti siano largamente promossi dai Paesi oltre Cortina e sono destinati soltanto a confondere le idee se non sono accompagnati da un impegno generale di disarmo,e fondati sulle possibilità di scrupolosi controlli.-

Cercherò di procurarmi più sicure informazioni e, non appena possibile, ti scriverò di nuovo.-

Abbiti, con Rosita e con i figliuoli, i miei più affettuosi saluti.-

tuo Giordani

(prof.Francesco Giordani)

Ill.mo Prof. GIULIO NATTA
Via Mario Pagano 54
MILANO

Ref.

May 13, 1958

Ref.n.587/el

Mr. Thomas C. PONDER
Programs Editor
Petroleum Refiner
P.O. Box, 2608
HOUSTON, 1 - Texas (U.S.A.)

Dear Mr. Ponder,

on my coming back from my travel through the United States, I found your letter of March 27, 1958, concerning my paper presented in Montreal.

I wish to inform you that this paper will be publi in a special issue of "The Canadian Journal of Chemical Enginee I have no objections to make for the publication of my paper on Petroleum Refiner, if you may obtain the permission from "The Canadian Journal of Chemical Engineering".

With best regards.

Very truly yours,

G.Natta

PETROLEUM REFINER

Specialized for Refining, Natural Gasoline and Petrochemicals

P. O. Box 2608, Houston 1, Texas

March 27, 1958

Dr. Giulio Natta
University of Milan
Milan, Italy

Dear Dr. Natta:

We would certainly like to have a review copy of your paper "The Chemical Industry in Italy" which you are presenting at the American Institute of Chemical Engineers and the Chemical Institute of Canada meeting in Montreal, Quebec, April 20-23, 1958.

If publication appears desirable in PETROLEUM REFINER, and release is in order, then we will contact you before processing the manuscript.

Many thanks for sending us this advance copy of your manuscript for our review.

Very truly yours,

Thomas C. Ponder

Thomas C. Ponder
Programs Editor

TCP/jkm

Prof Natta
per favore

April 11, 1958

Mr.Thomas C.Ponder, Programs Edit

PETROLEUM REFINER
P.O.Box 2608
HOUSTON 1 - Texas - U.S.A.

Dear Mr/Ponder,

with reference to your letter of March 27, 1958, I wish to inform you that Prof.Natta has already left Milan to the United States. He will return at the beginning of May.

If you wish to get in touch with Prof.Natta during his trip through the States, you may address your letter c/oSheratoh Mount Royal Hotel in Montreal, where Prof.Natta will stay from April 19 till 23, 1958.

With best regards.

Truly yours,

R.Lamma (secretary to Prof.Nat

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, N. Y.

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

TRIANGLE 5-6412

November 13, 1958

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of October 30, 1958.

I know everybody at the Society of Plastics Engineers meeting will feel as sorry as I, if you are unable to be present for your lecture. Please be assured that I shall, of course, be glad to read your paper; I remember very well when you were kind enough to read mine. If you could send me in advance any slides you have for presentation with your paper, I would very much appreciate it.

As always, with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

Am.

January 7, 195

Mr. Robert Plazibat
11720 Edgewater Drive
CLEVELAND 7 - Ohio - U.S.A

Ref. N. 2151/rl

Dear Mr. Plazibat,

Referring to your letter of December 15, I wish to inform you that we did not develop an accurate study on freon resistence of polypropylene.

I believe that an isotactic material, free from atactic one, would be freon resistent, but it should be very difficult to obtain completely transparent samples, if they are very thick.

Best regards.

Truly yours,

G. Natta

ROBERT PLAZIBAT
11720 EDGEWATER DRIVE
CLEVELAND 7, OHIO

December 15, 1957

Mr. Gulio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Sir,

I would like to know if there is a plastic available which can endure contact with the refrigerant Freon. It must retain the same transparent quality which is inherent in glass. The shape required would be a cylinder approximately five centimeters long and two centimeters in diameter. This cylinder would be used as a sight glass in a refrigeration cycle. It would be desirable to import the finished product.

Also I would appreciate if you could refer me to the proper person at Montecatini regarding the importation of polypropylene water valves into the United States.

I apologize for disturbing you with trivial questions but as a recognized authority in the field I thought you would be one that could answer my question.

Thank you.

Respectfully yours,

Robert Plazibat

Robert Plazibat

Non è stato di noi fatto uno studio
esatto della resistenza al freon
del Polipropilene. ~~non esiste~~
~~pertanto che siano~~ Ritengo che ~~se~~ materiale
un ~~campione di sintetico~~ plastico, sia di elettrico, sia
adatto al V/ scopo. Non sarebbe
difficile ottenibile trasparente completamente
in forti spessori

iniziate
Copia a Prof Natta,
Chemore,
18/4/58

Ass.

POLYMER ASSOCIATES
Room 2-A, 100 Washington Street
Brighton, Massachusetts
U.S.A.

April 12, 1958

Professor Giulio Natta
Istituto Politecnico di Milano
Milano, Italia

Dear Dottore Natta:

Dr. Arthur Weinberg of the G. M. Basford Company, which handles Montecatini and Chemore promotion work in this country, has written to me about the symposium on stereospecific synthesis in which you are planning to take part on April 26 at the Polytechnic Institute of Brooklyn in the United States.

I am one of a group of graduate students at the Harvard Business School who are in the process of completing an extensive survey and evaluation of the stereospecifics from the businessman's point of view. Although none of our group will be able to attend the symposium, we felt that our report might be of considerable interest to many of the people who will be there. I have enclosed a paper that tells briefly what we have done, with the thought that you yourself or some of the industry people with whom you will be talking might be interested in it.

As you know, the advantages and disadvantages of high-density polyethylene and polypropylene are not well understood by most people in the plastics industry--especially by the major fabricators who must have confidence in the materials if they are to be given the market support that they deserve. We have written our report in order to bring together in one volume most of the important "pros" and "cons" of the stereospecifics.

If, during the course of the symposium, you have an opportunity to mention our book, we would very much appreciate it if you would do so.

Cordially yours,

James M Beck

POLYMER ASSOCIATES
James M. Beck

Enclosure

Champoluc, XXXX 7 settembre 1958

Hm.

Charles C. Price
University of Pennsylvania
Philadelphia 4

924/mb

Dear Prof. Price,

I wish to thank you for your letter of July 30 and to express you my pleasure for having had the opportunity to meet you at Nottingham.

I was very glad to hear from you such interesting news about propylene oxide polymerization with optically active catalysts, and I am looking forward to be informed, if possible, about your improvements in this field.

Similar works are being carried on by us in the field of vinyl compounds polymerization and we have reached some results in the polymerization of racemic mixtures of branched -olefins containing an asimmetric carbon atom.

The best wishes from Mrs. Natta and me.

Sincerely yours,

Prof. G. Natta

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

The College

JOHN HARRISON LABORATORY OF CHEMISTRY
OFFICE OF THE DIRECTOR

July 30, 1958

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your note concerning the improper reference to your work, which has been corrected on the galley proof!

It was good to see you and your wife at Nottingham, and also to learn more of the most interesting work you are doing.

Best wishes!

Sincerely yours,

Charles C. Price

Charles C. Price

CCP:wam

July 16, 1958

Prof. Charles C. PRICE
University of Pennsylvania

PHILADELPHIA, 4

(U.S.A.)

Our ref.: 869/mb

Dear Prof. Price,

I have seen with great interest the abstract of the paper by yourself and Dr. Osgan on "New Catalysts for the preparation of isotactic polypropylene oxide".

I have found your earlier work in this field very important and I am sure that your new paper will also be of considerable scientific interest.

From a glance at the references printed at the bottom of the abstract, I see that you have cited a paper of ours of 1957, on the kinetics of alpha-olefin polymerisation, which is, I believe, not quite in point.

As you may recall, the first definition of isotactic polymers was given by myself at the Italian Accademia dei Lincei in 1954 (see G. Natta: Atti Accad. Naz. Lincei 8 (1955), 4, 61, also J. Polymer Science 16 (1955), 143, and G. Natta, P. Pino, P. Corradini, F. Danusso, E. Mantica, G. Mazzanti, D. Moraglio - J. Am. Chem. Soc. 77 (1955), 1708). The chain structure of crystalline of crystalline polypropyleneoxide and the possible arrangements of enantiomorfic chain in the lattice, were illustrated in our paper: G. Natta, P. Corradini and G. Dall'Asta - Rend. Acc. Naz. Lincei 8 (1956) 20, 408.

I am taking the liberty of citing these papers, which appear to have a closer connection with the subject of your present communication, sotthat you may, if you wish, substitute these references for the one originally cited.

Thanking you for your attention to this and looking forward to seeing you at the meeting, I remain,

Sincerely yours,

G. Natta

non inviata —
(15/7/58)

POLITECNICO MILANO

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, 15 luglio 1958

TELEF. 292.125 - 292.126
292.105 - 106 - 107

Egr. Sig. Ing. Piero Giustiniani
Amministratore Delegato
S.e.d.a

e p.c. Ing. De Verde
Ing. Orsoni
Dr. Pirani

818/mb

Caro Ingegnere,

Penso che al Congresso di Nottingham ci saranno molte discussioni e fortunatamente saremo in un gruppo numeroso. Infatti, ho fatto assegnare dal C.N.R. un contributo al Prof. Pino ed uno al Prof. Danusso per la partecipazione a tale Congresso al quale verrà anche il Prof. Mazzanti.

Ho ricevuto i pre-prints delle comunicazioni del primo giorno. Tra di esse vi è una comunicazione russa che non cita alcuna letteratura ma che ha poco a che fare con i nostri lavori dato che impiega catalizzatori del tipo di quelli della Phillips e della Standard Oil of Indiana, soprattutto per il polietilene.

Peggio dei russi sembra si comportino certi americani; in una nota di Cagum (del Brooklyn Politechnic) e di Price, la citazione dei nostri lavori è incerta e chi legge può avere la impressione che la scoperta dei polimeri isotattici sia stata fatta in America.

Le unisco uno stralcio della parte dell'articolo che ci interessa.

Resta da stabilire, ora, se dobbiamo controbattere, oppure se dobbiamo far finta di niente poichè l'errore è talmente grossolano ed evidente che domani può essere portato come un elemento a nostra difesa per dimostrare l'atteggiamento nei nostri riguardi dei chimici americani che hanno rapporti con l'industria americana.

Potrei chiedere la parola dopo la conferenza di Cagum e Price (dato che nel Simposio di Nottingham è ammessa la discussione) oppure, dato che conosco molto bene Price, potrei dirgli di correggere quanto è detto nei pre-prints per la pubblicazione definitiva.

./..

Segue lettera a Ing. Giustiniani in data 15/7/58

Potrei per esempio dire quanto segue :

- "E' una vecchia tradizione europea nel campo scientifico di citare esattamente quanto riguarda i lavori fatti precedentemente da altri nel campo dei propri lavori. Talvolta gli americani trascurano di considerare i lavori fatti al di fuori dall'America, ma credo che peggior cosa sia riportarli in modo inesatto e incompleto. Piuttosto che riportare citazioni inesatte, forse è preferibile quanto fanno scienziati di un paese più lontano da noi che non li citano affatto.

  La citazione riportata nella voce 4) delle "References" della nota di M. Cagan e C.C. Price si riferisce ad un nostro lavoro del 1957 sulla cinetica della polimerizzazione delle alfa-olefine, che non ha niente a che fare con la definizione di polimeri isotattici da noi data all'Accademia dei Lincei nel 1954 (cfr. G. Natta : Att.Acc. Naz.Lincei 8,4,61 (1955); J. Polymer Science 16, 143 (1955); G. Natta, P.Pino, P. Corradini, F. Danusso, E. Mantica, G. Mazzanti, D. Moraglio; J. Am.Chem. Soc. 77, 1708 (1955).
  Nemmeno viene citato il nostro lavoro del 1956 (cfr. G. Natta, P. Corradini, G. Dall'Asta - Strutture delle catene del polipropilenossido cristallino - Rend. Acc. Naz.Lincei (8) 20, 408, (1956) in cui si dimostra, mediante l'esame con i raggi X, che il polimero cristallino di Price presenta struttura planare in cui si succedono unità monomeriche con la stessa configurazione sterica. Da esso risulta inoltre come nel reticolo cristallino possano impacchettarsi catene enantiomorfe."

Sono però del parere che sia meglio parlare a voce con Price.

Non credo sia il caso di informare Tulmin e di chiedere consiglio perchè temo che questi susciti un pandemonio.

Desidero informarla che allo stesso Congresso vi è un lavoro del Prof. Bunn di Liverpool il quale cita in modo completo i nostri lavori e si esprime in modo molto corretto nei nostri riguardi.

Cordiali saluti.

G. Natta

MV

INTERNATIONAL HIGH-POLYMER CONFERENCE
Nottingham, July 21-24 1958

Journal of Polymer Science, uncorrected preprint

Paper No. H10A

POLYETHERS - V*. New Catalysts for the preparation of isotactic polypropylene oxide.-

Pruitt and Baggett have reported that modified ferric catalysts, prepared from ferric chloride or ferric hydroxide, are capable of converting propylene oxide to a new, crystalline polymer of high molecular weight.

* = For previous papers in this series, see L.E.St.Pierre and C.C. Price. J.Am.Chem.Soc. 78,3432 (1956); C.C.Price,M.Osgan, R.E.Hughes and C. Shambelan, J.Am.Soc. 78,690 (1956); C.C.Price and M.Osgan, J.Am.Chem.Soc. 78,4787 (1956); A. Noshay and C.C.Price J.Org.Chem., in press.

This polymer was recognized as isotactic polypropylene oxide and the discovery of these stereospecific catalysts for olefin oxide polymerization parallels similar discoveries for olefin polymerization by Ziegler and Natta.

We have extended our earlier work on the Pruitt-Baggett catalyst system and find that a wide variety of Lewis acid metal alkoxides, or mixtures of alkoxides and halides, serve as catalysts for the stereospecific polymerization of propylene oxide, some at rates considerably more rapid than the Pruitt-Baggett catalyst.

.....

References -

M.E. Pruitt and J.N. Baggett, U.S. Pat. 2,706,181 (April 12,1955)
C.C. Price and M.Osgan, J.Am.Chem.Soc. 78,4787 (1956)

K.Ziegler, Angew.Chem. 67,541 (1955)

See., e.g. G.Natta,I.Pasquon and E.Giachetti, Angew.Chem. 68,213 (1957)
C.Shambelan and R.E. Hughes, Am.Chem.Soc. Delaware Valley Regional Meeting, February 5,1958.

Ann.

July 11, 1958

Professor Charles C. Price
University of Pennsylvania
Philadelphia 4
U.S.A.

721/mb

Dear Professor Price,

I wish you to excuse my delay in replying to your letter dated July 9, for it was due to my being out of Milan for a long while.

I regret that you will not be able to come to Milan for a lecture at our Institute.

I shall be very glad to meet you at Nottingham within a few days.

Yours sincerely,
G. Natta

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

The College

JOHN HARRISON LABORATORY OF CHEMISTRY
Office of the Director

June 9, 1958

Dear Professor Natta:

I do plan to be at the International High Polymer Conference in Nottingham in July and I hope that I will have the pleasure of meeting you there.

I appreciate your invitation to lecture at your Institute but my travel schedule does not permit a visit to the continent this time, so I will not be able to come to Milan.

Sincerely yours,

Charles C. Price

Charles C. Price
Director

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Enclosure

Ann.

May 26, 1958

Prof. Charles C. Price - Director
University of Pennsylvania
The College
J. Harrison Laboratory of Chemi
PHILADELPHIA 4 - Penn. - USA

Ref.N. 636/rl

Dear Professor Price,

only today I receive a letter of May 17, from the Secretariat to Prof. Overberger, with enclosed your kind letter of March 31. I regrett very much this oversight, that hindered me to receive your letter during my stay in the United States. I am sorry not to have been able to thank you before, for your kind invitation to give a lecture at your University.

I do hope to have the pleasure to meet you in Nottingham, during the International High Polymers Conferences in July, if you have the opportunity to go to England. If in such or other occasions you might come to Europe, I shall be very glad if you may give a lecture at our Polytechnic.

I thank you also for your kind offer to send us a sample of l-propylene oxide; if you may send us a sample that enable us to drawn into fibers and to orient it for X-ray examination, I should be very grateful.

With kindest personale regards, I am,

Sincerely yours,

Giulio Natta

P.S. I am enclosing the original letter from Prof. Overberger's Secretariat. N 635

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

The College

JOHN HARRISON LABORATORY OF CHEMISTRY
Office of the Director

March 31, 1958

Professor G. Natta
c/o C. G. Overberger
Polytechnic Institute of Brooklyn
99 Livingston Street
Brooklyn 1, New York

Dear Professor Natta:

I have learned of your visit to America and wonder if you could arrange to stop at the University of Pennsylvania. We would be particularly pleased to have you present a lecture on stereospecific polymerization to our students.

Incidentally, we have just completed a second preparation of l-propylene oxide and should soon have a sample for you, if you are still interested.

Sincerely yours,

Charles C Price

Charles C. Price
Director

CCP:sm

February 18, 1958

Professor F.H.RAHM, Director
Plastics Laboratory
Princeton University
PRINCETON - New Jersey - U.S.

Dear Professor Rahm,

I wish to thank you for your kind sending to our Institute of several Technical Reports from your Laboratory.

These Reports remain at our Library at disposal of all the interested people.

With best regards.

Very sincerely yours,

(Prof.G.Natta)

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

January 24, 1958

Dr. Giulio Natta
Institute of Chim. Indust.
Piazza Leonardo da Vinci
Milano, Italy

Dear Dr. Natta:

We are sending you, under separate post, copies of our six Technical Reports issued during 1957, which will bring your collection up to date. The enclosed list should become page 8 in your Index of Technical Reports.

This collection was established for the general benefit of the plastics industry in your country. We hope that it has been brought to the attention of your research personnel in education and industry and that you have found the reports interesting and valuable.

Sincerely yours,

L.F. Rahm

L.F. Rahm, Director
Plastics Laboratory

LFR:mw
Enclosure

Report	Date	Title
44A	1 January 1957	Stress Relaxation and Dynamic Properties of Ethylene Polymers by E.T. Oskin and B. Maxwell
46A	1 July 1957	The Hydrostatic Pressure Effect on Polymer Melt Viscosity by Bryce Maxwell and Alex Jung Modern Plastics 35, 3, pg. 174 November 1957
46B	24 July 1957	The Response of Linear High Polymers to Hydrostatic Pressure by Shiro Matsuoka and Bryce Maxwell
46C	15 August 1957	Mechanical Spectrometry Studies of Polyvinyl Chloride by Bryce Maxwell
48A	1 December 1957	Reaction Spinning of Fibers Herbert A. Pohl
48B	1 December 1957	Some Effects of Non-Uniform Fields on Dielectrics by Herbert A. Pohl

REEVES fabrics

REEVES BROTHERS, INC.

finished goods sales offices

1071 AVENUE OF THE AMERICAS (AT 41ST STREET)
NEW YORK 18, N.Y.
TELEPHONE: PENNSYLVANIA 6-8600

Urgente (Dumas) Mezzine Mongini

September 22, 1958

Responder con doble W

Informar Lerner!

Professor Dr. Giulio Natta
Via Mario Pagano, 54
Milano,
ITALY

Dear Professor Natta:

I think I owe you an apology for not having written to you at an earlier date and to have thanked you for the kind reception you gave me during my visit in Milano. But I know you have been travelling around very much since that date also.

A few days ago I gave a paper on "Polyolefin Fibers in Textiles" before the New York Section of the American Association of Textile Technology. This paper, therefore, was adjusted to be understood by textile technologists and I do not wish to bother you with details. The paper will be published in the November issue of Modern Textile Magazine.

Dr. Ottolenghi and Dr. Passi are sending one complete copy to Dr. Giustiniani. You could be interested in some of the Figures which have been shown during the paper and which will be published and I am taking the liberty of enclosing them to this letter.

I have taken the liberty of copying Figure IV from a paper written by Dr. J.W.S. Hearle in Skinners Silk and Rayon Record on Isotactic Polymers and which is taken from one of your papers. I hope that you find no objection to my using this Figure by mentioning that this is taken from one of your papers.

I hope that you are feeling well personally and that I will have again the honor and pleasure of meeting you in the States or perhaps in Europe.

Best personal regards.

Yours sincerely,

Victor L. Erlich

Victor L. Erlich

VLE:ls
Enc.

Mon Cher Professeur,

Je m'excuse de vous écrire cette lettre en Anglais, mais je suis certain que vous n'aurez pas d'inconvénience de la lire.

Le diagramme ci-inclus est tellement éloquent que je voudrais m'en servir pour ma publication. Je préférerais de donner l'exacte référence de <u>votre</u> publication à ce sujet; pouvez-vous me la donner?

Merci encore et tous mes respects.

Victor L. Erlich

1er Octobre 1958

Mr. Victor L. ERLICH
REEVES BROTHERS, Inc.
1071 Avenue of the Americas(at 4 Street)
NEW YORK, 18 - N.Y. (U.S.A.)

Cher Monsieur Erlich,

votre lettre est arrivée ces jours-ci, mais seulement aujourd'hui en rentrant à Milan, de retour des vacances, je viens d'en prendre connaissance.

Je vous propose de bien vouloir modifier quelques données indiquées dans la Fig. 3, selon les données de la littérature plus récente.

Si c'est encore possible, je vous prierai donc de bien vouloir rectifier dans votre publication les vieilles données en les substituant avec celles que je vous adresse ci-incluses.

Veuillez agréer, cher Monsieur, mes salutations les meilleures.

(Prof.G.Natta)

Ann.

REEVES fabrics

REEVES BROTHERS, INC.

finished goods sales offices

1071 AVENUE OF THE AMERICAS (AT 41ST STREET)
NEW YORK 18, N.Y.
TELEPHONE: PENNSYLVANIA 6-8600

October 7, 1958

Professor Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Thank you very much for your letter of October 1 and your suggestions for amending Figure III of my recent paper. It just arrived in time and the changes could be incorporated before they go into print.

I am very pleased that you made this amendment possible and am with my best personal regards,

Sincerely yours,

Victor L. Erlich

Victor L. Erlich

VLE:ls

MONTECATINI

Società Generale per l'Industria Mineraria e Chimica

AMMINISTRATORE DELEGATO

Data, 4 Marzo 1958

PROMEMORIA

C/si

per il Signor

~~SERE~~ **SEIO**
POLYMER
SERE
PROF. NATTA

Am.

Per Vostra conoscenza Vi rimetto una nota della Reeves Brothers nella quale si fa cenno ad una stabilizzazione della fibra di politene alle radiazioni ultravioletta.

Il Dr. V. Erlich **, che è il capo delle ricerche di questa Reeves Brothers sarà qui nel prossimo mese di maggio ed ha chiesto di incontrarsi con me. Io vi porrò in contatto con lui per uno scambio di vedute su questo argomento che è certamente molto interessante.**

Cordiali saluti.

un allegato

Ren
(Reeves Brothers)

▶ **First commercial production of polypropylene** yarn in the U. S. is claimed by Reeves Bros. Plant location: Fairmont, S. C. It sees major outlets in industrial applications (for example, filter fabrics) because of higher temperature resistance, and in marine rope. Officials say each could shortly become several hundred thousand pound markets. Apparel outlets are also in the works.

Fotografie per ing Guist
" Orsini
per Nella

STAUFFER CHEMICAL COMPANY
380 MADISON AVENUE
NEW YORK 17, N.Y.
TELEPHONE
OXFORD 7-0600

CABLE ADDRESS
"STAUFCHEM"

OFFICE OF THE
PRESIDENT

July 3, 1958

Professor Natta
Instituto di Chimeca
Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

I wish to take this opportunity to thank you for the many courtesies extended to our Mr. F. W. MacMullen on his recent visit to Italy.

He told me how very much he enjoyed meeting and talking to you and Dr. Corradini and Professor P. Pino about matters of mutual interest.

Many thanks again for all your kindness.

Sincerely,

HStauffer/
baj

5 Febbraio 1958

Egr.Ing.P.GIUSTINIA
Amministratore Delegato
Società Montecatini

S e d e

Rif.N.217/rl

e p.c. Ing.C.Ballabio
Ing.G.de Varda
Ing.B.Orsoni

Caro Ingegnere,

ho avuto ieri mattina la visita del Dr.Mangold rappresentante Europeo della Stauffer Chemical Co. Credo che possano interessarLe alcune notizie che ho avuto dal Dr.Mangold.

I) La Stauffer produce oggi 1 t/g di $TiCl_3$, ossia un quantitativo tale da poter produrre 100 t/g di polimeri isotattici.

II) Uno dei maggiori clienti americani è la Hercules Powder, come era da aspettarsi.

III) La Stauffer ha avuto una forte ordinazione dalla SNIA VISCOSA.

Da altra fonte ho saputo che la Snia ha in sviluppo un processo di polimerizzazione (simile a quello proposto da Sassare) con impiego di catalizzatori contenenti sodio antracene.

Non mi meraviglierei che in presenza di $TiCl_3$, tale catalizzatore polimerizzi bene l'etilene e probabilmente anche il propilene, fornendo prodotti scarsamente cristallini. Forse i chimici della Snia si illudono che un tale processo sia indipendente dai nostri!

Cordiali saluti.

G.Natta

STAUFFER CHEMICAL COMPANY
380 MADISON AVENUE
NEW YORK 17, N.Y.
TELEPHONE
OXFORD 7-0600
CABLE ADDRESS
"STAUFCHEM"

Stauffer CHEMICALS SINCE 1885

January 22, 1958

Professor G. Natta
Instituto di Chimeca Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Thank you very much for your letter of January 14, 1958. We appreciate your concern over the possible misinterpretation that people may have gained from some of the U.S. publications on the origin of titanium trichloride as a catalyst for isotactic polymers. We are doing everything possible to correct this erroneous impression.

Dr. Mario Ottolenghi of the Chemore Corporation, New York City, Montecatini's general U.S. representative, has brought to our attention the same point made in your letter; namely, a number of people here and abroad are under the impression Stauffer Chemical Company has advertised titanium trichloride as a Ziegler catalyst.

In our original press release on titanium trichloride and all later correspondence, we have always been careful to point out titanium trichloride is a development of yours. On checking some of the technical magazines which ran stories based on our news release on titanium trichloride, we found a number of editors took the liberty of condensing and rewriting our original announcement, thus giving an erroneous impression. We have brought this error to the attention of the proper people.

We wish to apologize for any misunderstanding, difficulty or embarrassment this may have caused you.

We were pleased to learn that you plan to visit the United States in April. Dr. Ottolenghi told us you expect to be in New York and San Francisco. We would appreciate learning what your travel plans are during your visit. If convenient, we would like very much to meet you in either New York or San Francisco. Our titanium trichloride production unit is located in the San Francisco area. We also carry on most of our metal halide and polymerization studies at our Research Center there.

Dr. Eng. Paul Mangold, our European technical consultant, located in Geneva, Switzerland, expects shortly to visit Montecatini in Milan regarding their purchase of our titanium trichloride. While in the city he would like to meet with you regarding the same subject.

Please find attached two copies of our latest preliminary technical bulletin on titanium trichloride.

We look forward to hearing from you regarding your United States travel plans. If we may be of any additional assistance, please do not hesitate to contact us.

Very truly yours,

STAUFFER CHEMICAL COMPANY

C. C. Baldwin, Jr.
Market Development Dept.

CCB,JR:br
Attach.
CC: Dr. Eng. P. Mangold
Dr. Mario Ottolenghi

January 14, 1958

Mr. C. C. BALDWIN, Jr.
Market Development Dept.
STAUFFER CHEMICAL COMPANY
380 Madison Avenue
NEW YORK 17 - N.Y. - U.S.A.

Ref. No. 25/rl

Dear Mr. Baldwin,

I thank you for sending me copies of the Englis translation of the paper we published in "Angewandte Chemie", and fo your letter of January 6, 1958.

Other papers on $TiCl_3$ are going to be published in "La Chi mica e l'Industria" and will probably be the subject matter for a ts which I shall hold at the International High Polymers Conference in Nottingham in July 1958 and also for conferences I shall hold in the States in April 1958.

Our recent research work allowed us to count the number o active centers on the surface of $TiCl_3$ and the average life of the growing macromolecules in stereospecific catalysis using such catalys

My friends in Europe and in America were quite surprised reading that, in advertising your $TiCl_3$, you indicated it as a Zieg Catalyst. I would like to call your attention to the fact that typi Ziegler catalysts consist of reduction products of titanium salts, obtained at low temperatures, by means of different substance such the Al-alkyls.

./.

January 14, 1958

Those catalysts do not contain $TiCl_3$ in the same crystalli form as the one corresponding to the violet modification of $TiCl_3$ pr pared by us and the use of which was patented by me back in December 1954 for the polymerization of alpha-olefins and later for other purp The brown modification, that crystallizes in needles, is less stereo specific than the violet one.

While Ziegler catalysts do not show a high stereospecifici using $TiCl_3$ we were able to obtain crude isotactic polymers containi up to 95% of completely isotactic polymer.

In the case of polyethylene, the polymer obtained by means of violet $TiCl_3$ (Italian Patent Nr.547.314) has a melting point of 137-138°C, while Ziegler polyethylene has a melting point of 132°C.

Titanium Trichloride is of particular practical importance in preparing polymers of alpha-olefins which, I am convinced, will surpass in importance polyethylene. While in the case of polyethyle the advantage of using violet $TiCl_3$ in comparison with $TiCl_4$ or bro $TiCl_3$ is remarkable but of limited extent, in the case of alpha-ole polymers violet $TiCl_3$ is one of the best catalysts and is equalled only by a few other compounds of other transition metals.

I think, therefore, that you might be interested in corre ing in your future publications the indication of violet $TiCl_3$ as a Ziegler catalyst. The only $TiCl_3$ containing catalysts described by gler do in fact contain brown $TiCl_3$ which is very suitable for poly rizing ethylene, but not for producing isotactic polypropylene.

I will be grateful to you for kindly letting me have assu on the above

(Prof. G. Natta)

January 14, 1958

Mr. C. C. BALDWIN, Jr.
Market Development Dept.
STAUFFER CHEMICAL COMPANY
380 Madison Avenue
NEW YORK 17 - N.Y. - U.S.A.

Ref. No. 25/rl

Dear Mr. Baldwin,

I thank you for sending me copies of the Ebglis translation of the paper we published in "Angewandte Chemie", and fo your letter of January 6, 1958.

Other papers on $TiCl_3$ are going to be published in "La Chi mica e l'Industria" and will probably be the subject matter for a ta which I shall hold at the International High Polymers Conference in Nottingham in July 1958 and also for conferences I shall hold in the States in April 1958.

Our recent research work allowed us to count the number of active centers on the surface of $TiCl_3$ and the average life of the growing macromolecules in stereospecific catalysis using such catalys

My friends in Europe and in America were quite surprised i reading that, in advertising your $TiCl_3$, you indicated it as a Ziegl Catalyst. I would like to call your attention to the fact that typic Ziegler catalysts consist of reduction products of titanium salts, obtained at low temperatures, by means of different substance such a the Al-alkyls.

./.

January 14, 1958

Those catalysts do not contain $TiCl_3$ in the same crystalli form as the one corresponding to the violet modification of $TiCl_3$ pr pared by us and the use of which was patented by me back in December 1954 for the polymerization of alpha-olefins and later for other purp The brown modification, that crystallizes in needles, is less stereo specific than the violet one.

While Ziegler catalysts do not show a high stereospecifici using $TiCl_3$ we were able to obtain crude isotactic polymers containi up to 95% of completely isotactic polymer.

In the case of polyethylene, the polymer obtained by means of violet $TiCl_3$ (Italian Patent Nr.547.314) has a melting point of 137-138°C, while Ziegler polyethylene has a melting point of 132°C.

Titanium Trichloride is of particular practical importance in preparing polymers of alpha-olefins which, I am convinced, will surpass in importance polyethylene. While in the case of polyethylen the advantage of using violet $TiCl_3$ in comparison with $TiCl_4$ or brow $TiCl_3$ is remarkable but of limited extent, in the case of alpha-olef polymers violet $TiCl_3$ is one of the best catalysts and is equalled only by a few other compounds of other transition metals.

I think, therefore, that you might be interested in correc ing in your future publications the indication of violet $TiCl_3$ as a Ziegler catalyst. The only $TiCl_3$ containing catalysts described by glers do in fact contain brown $TiCl_3$ which is very suitable for polym rizing ethylene, but not for producing isotactic polypropylene.

I will be grateful to you for kindly letting me have assu on the above

(Prof. G. Natta)

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N.Y.

TELEPHONE
OXFORD 7-0600

CABLE ADDRESS
"STAUFCHEM"

January 6, 1958

Professor G. Natta
Instituto di Chimeca Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Arrangements have been made to send to your attention, under separate cover, free of charge, a one pound sample of Titanium Trichloride. This material, we believe, represents a significant improvement in quality over our earlier samples, particularly in reduction of titanium tetrachloride content.

Attached is a copy of our latest revised technical bulletin on Titanium Trichloride.

We appreciated receiving the reprint of your latest article in Makromolekulare Chemie.

After you have had an opportunity to evaluate this latest sample of Titanium Trichloride, any comments you may care to make on the results of your tests would be appreciated. In the meantime, if we can be of any additional assistance, please do not hesitate to contact us.

Very truly yours,

STAUFFER CHEMICAL COMPANY

C. C. Baldwin, Jr.
Market Development Dept.

CCB, JR:br
Attach.

USA

April 3, 1958

Mr. Henry Salland
4520 Fairfox
DALLAS - Texas - U.S.A.

/rl

Dear Mr. Salland,

With reference to your letter of February 18, addressed to Prof. Natta, I wish to inform you that Prof. Natta has left Milan to the States for a long travel, and will come back in the beginning of May.

I am therefore sorry not to be able to send you the requested information on Moplen.

With best regards.

Sincerely yours,

R. Lamma (secretary to Prof. Nat

A. S. ALOE COMPANY

Physicians', Hospital and Laboratory Equipment and Supplies

1831 OLIVE ST., ST. LOUIS 3, MO. Telephone: CHESTNUT 5700

ST. LOUIS 3, MISSOURI

Feb 18-58

Prof. Giulio Natta
Polytechnic Inst.
Milan, Italy.

Dear Professor:

I see in our "Science Newsletter" about your wonderful new plastic "Moplen" and I'm wondering if this product would not prove to be a blessing for people who have cataracts.

I'm sure you know that in England they are trying out plastic lens for the eyes, when a cataract is removed a pea shaped plastic is inserted.

This plastic must be inert, non-toxic have a good optical density and be sterile - your product seems to have all these characteristics except perhaps density.

A suitable plastic would be a boon to all people threatened with loss of

A. S. ALOE COMPANY

Physicians', Hospital and Laboratory Equipment and Supplies

1831 OLIVE ST., ST. LOUIS 3, MO. Telephone: CHESTNUT 5700

ST. LOUIS 3, MISSOURI

sight, and if you have such a product I would like to be your sales agent for the U.S.A, and perhaps Mexico. Is there a possibility that Moplen will be used for such purpose?

Sincerely Yours
Henry Salland
4520 Fairfax
Dallas, Tex.

(HENRY SALLAND)

Archie Spegel

96 Gordon Street,
Guelph, Ontario,
Canada,
Mar. 5, 1958.

Professor Giulio Natta
Polytechnic Institute of Milan
Milan , I T A LY

Dear Professor Giulio Natta,

I read an article in Science Digest about your discovery of a synthetic fiberthat feels like wood and is much cheaper than Nylon. In the article the fiber is Moplen .

Would you be so kind as to give this letter over to the firm that manufactures Moplen and have them send me a sample of the synthetic fiber.

Also I would appreciate if you would send me some technical data on the new fiber.

Trusting to hear from you soon I remain.

Yours truly
Archie Spegel
Archie Spegel

Simone di Giulio Natta
Polytechnic

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

CENTRAL EXPERIMENT STATION

4800 FORBES AVENUE
PITTSBURGH 13, PENNSYLVANIA

November 25, 1958

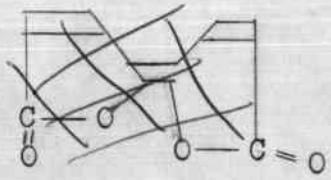
Air Mail

Professor G.N. Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

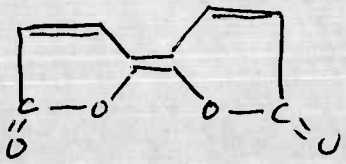
Dear Professor Natta:

Thank you for your very kind letter which I found on my return to the laboratory. I hope to have a review article on our work ready early in 1959.

I have enclosed a preprint of a paper entitled "Addition of Carbon Monoxide to Acetylene Dicobalt Hexacarbonyl. A New Type of Complex," by H.W. Sternberg, J.G. Shukys, C. Delle Donne, R. Markby, R.A. Friedel, and I. Wender. This paper has been accepted for publication by the Journal of the American Chemical Society. On the bottom of page 6 we show a structure B for this complex, which contains a lactone ring. A compound containing a lactone ring formed from azobenzene and carbon monoxide in the presence of $Co_2(CO)_8$ has recently been described by the Japanese worker, Horiie. However, workers in your laboratory told me on my recent visit that you had synthesized compounds of the type



I



Ustbiore e poi riprodurre

from acetylene, CO and $Co_2(CO)_8$. Such a compound could result from two molecules of "lactone" in our postulated structure B. If you have a paper in press describing your compound, I, we would like to include a reference to this compound.

I am enclosing a copy of our paper entitled "Lithium in Ethylenediamine: A New Reducing System for Organic Compounds," by L. Reggel, R.A. Friedel, and I. Wender on reduction of organic compounds with lithium in ethylenediamine and a description of the reduction of coal in this same system. I hope this information will be useful.

I look forward to another visit to Milano and hope it will not be too long from now. With kindest regards to Dr. Ercoli and the other research workers I had the good fortune to meet at your Institute, I am

Sincerely yours,

Irving Wender

Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research

Enclosures 2

Saturday, November 1, 1958

HOTEL PLAZA

118-126, BOUL. ADOLPHE MAX
BRUXELLES
TÉL. 17.91.40 (20 lignes)
ADRESSE TÉLÉGRAPHIQUE :
PLAZAHOTEL-BRUXELLES
Télex : Plazahôtel no 507

Professor G. Natta
Milan Polytechnic Institute
Milan, Italy

Dear Professor Natta,

There is a possibility that mail addressed to me has been sent to your institute during my arrival in Milan. I would be most grateful if you would forward any such mail by airmail to me at this hotel. I will be here 5 or 6 days.

I want to thank you for helping make this trip possible and for the cordial reception at your institute. I enjoyed seeing you once more immensely and talking to your workers. I hope to come to Italy with my wife in perhaps 2 years. Sincerely Irving Wender

MONTECATINI
SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA
ANONIMA - CAPITALE VERSATO L. 100.000.000.000
MILANO

Istituto Ricerche Idrocarburi
FERRARA

Ferrara, 27 Ottobre 1958
Via Antonio Roiti, 12

Oggetto :

Chiar.mo Prof.
GIULIO NATTA
Istituto di Chimica Industriale
del POLITECNICO di
MILANO
Via Leonardo da Vinci, 32

Vs. Ns. /no

Egregio Professore,

La ringrazio della Sua gentile comunicazione circa il seminario che il Dr. Wender terrà sopra la chimica dei metallo-carbonili.

A detto seminario parteciperanno il Dr. Endler ed il Dr. Bulgarelli interessati a questo lavoro.

Mi è grata l'occasione per distintamente salutarLa.

(Lamberto Berti)

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, 28 Ottobre 1958

TELEF. 292.125 - 292.126
292.105 - 106 - 107

SEMINARIO DAL TITOLO :

" SOME RECENT ADVANCES IN METAL CARBONYL CHEMISTRY"

del Prof. Irving WENDER

Oggi alle ore 16 nell'aula grande, il Prof. Wender, Capo della Sezione di Chimica Organica del Bureau of Mines di Pittsburgh, terrà il seminario sopraindicato.

Il Direttore dell'Istituto

SKEIST & SCHWARZ LABORATORIES, INC.

89 LINCOLN PARK, NEWARK 2, N. J. MARKET 3-5002

CONSULTANTS TO THE PLASTICS AND TEXTILE INDUSTRIES

May 28. 1958

Professor Dr. Giulio Natta
Milano

Dear Professor Natta:

Thank you for your very gracious note of May 9. I am glad you found my fiber survey of interest and in order to acquaint you with the work of my associate Dr. Skeist I am taking the liberty of enclosing two of his articles on plastics. I hope you also find them of interest to you.

May I again express my great pleasure of having made your acquaintance and hoping to see you soon again

I remain, with kindest personal regards

very sincerely yours

E. Schwarz

Eugene W.K.Schwarz

Ann.

May 9, 1958

Mr. Eugene W.K. SCHWARZ - President
Skeist & Schwarz Laboratories, Inc.
89 Lincoln Park
NEWARK 2 - N.J. - U.S.A.

Dear Mr. Schwarz,

coming back from my travel through the United States, I wish to thank you for the copy of your article on "Chemical Week" you gave me, that I read with great interest.

With best regards, I remain,

Sincerely yours,

Giulio Natta

20 Maggio 1958

Professor Segrè
Radiation Laboratory
University of California
BERKELEY - California

Rif.N.618/rl

Egregio Professore,

al mio ritorno dall'interessante viaggio negli Stati Uniti ho trovate montagne di carte sulla mia scrivania di lavori urgentissimi nel mio Istituto e per di più sono dovute ripartire quasi subito. Appena ora sono rientrato a Milano quasi definitivamente e trovo un briciolo di tempo per ringraziarLa di tutte le Sue cortesie e per dirLe quanto, mia moglie ed io, siamo stati lieti di fare la conoscenza Sua e della Sua Signora, e come ricordiamo la bella serata trascorsa insieme a San Francisco.

Sperando di avere presto il piacere di rivederLa in Italia La prego di gradire molti cordiali saluti.

G.Natta

March 12, 1958

Mr. Archie Spegel
96 Gordon Street
GUELPH - Ontario - Canada

Red.No.373/rl

Dear Mr. Spegel,

I received your letter of March 5, concerning the request of information about Moplen.

I have sent your letter to the Polymer Co., Via F.Turati 18, Milan, that manufactures fibres from Moplen.

With best regards.

Yours truly,

(Prof. G.Natta)

Professor Giulio Natta

Polytechnic Institute of Milan

Milan, I T A L Y

AEROGRAMME
AIR MAIL · PAR AVION

SECOND FOLD HERE — PLIEZ ENSUITE ICI

SENDER'S NAME AND ADDRESS — NOM ET ADRESSE DE L'ENVOYEUR

Archie Spegel

96 Gordon Street

Guelph, Ontario

C A N A D A

NO ENCLOSURE PERMITTED — NE RIEN INSÉRER

FIRST FOLD HERE — PLIEZ D'ABORD ICI

STATE UNIVERSITY OF NEW YORK
COLLEGE OF FORESTRY

SYRACUSE 10, NEW YORK

October 4, 1957

Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Plazza Leonardo Da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Thank you for your hospitality during my stay in Milano which I enjoyed very much.

I am sending the reprints which I promised to send together with a copy of a manuscript which I hope will be of interest to you.

Looking forward to seeing you again and with kind regards,

Yours very sincerely

Michael Szwarc

MS/eb
encl.

Texas Co.
Chu.

July 16, 1958

Dr. Alexander R. Marx
29, rue Cambon 1er
P a r i s (France)

n. 853/mf

Dear Dr. Marx,

Hereby I wish to express you my pleasure of having made the acquaintance of you and Mr. Ericsson a few days ago.

Thank you for your kind letter of July 11 and for the sending to us of the data on olefins purity and prices for Houston Texas.

Do receive my best personal regards,

Sincerely yours,

Prof. G. Natta

29, RUE CAMBON . 1er

14 LUG 1958
853

Professor
Giulio N a t t a
c/o Soc. Gen. Montecatini
Via F. Turati
M i l a n o - Italy.

Paris, July 11, 1958.

Dear Professor Natta,

Ref. Texas Butadiene & Chemical Corp.

I recall with pleasure the visit of Mr. Ralph L. Ericsson, Vice-President of Texas Butadiene & Chemical Corp., and myself at your offices in Milano, when you and Dr. Orsini gave us a very warm welcome. I am representing Texas Butadiene & Chemical Corp (TB&C), who are in the Cabot group, in Europe and my offices are at the above address.

This is to remind you that TB&C make available high purity butene concentrates. You find enclosed our data sheets and hereafter price ideas, fob Houston-Texas, in bulk lots:

60%	butene - 1	US$	0.16	per gallon
90%	butene - 1	"	0.06¼	" lb
74%	butene - 2	"	0.20	" gallon
95%	butene - 2	"	0.057	" lb

All butenes are available now with the exception of 90% butene -1, which we schedule for delivery by 4th quarter of this year.

I remember that Dr. Orsini expressed considerable interest in butene - 1; we had mentioned at the time that we had supplied it as a cross-linking agent in linear polyethylene. We certainly would value very highly any comments you might care to make in regards to these materials. ?

I am enclosing also analysis sheet of our standard grade of butadiene -1,3. This material was delivered already to Europe in several tanker loads.

Very respectfully and sincerely yours,

Dr. Alexander R. M a r x.

ARM/hs.
encl.

Informare [illegible]

I materiali interessano. Decidiamo che interessere [illegible] mi i commenti?

TB&C PRODUCT DATA SHEET

BUTENE-2, 96% CONCENTRATE

Specification

Butene-2 (vol. percent) min.	96.0
Butene-1 (vol. percent) max.	1.5
N-Butane (vol. percent) max.	2.5
Butadiene (vol. percent) max.	0.9
Pentenes (vol. percent) max.	0.25
Acetylene (vol. percent) max.	0.15
Isobutane (vol. percent) max.	0.05
Isobutylene (vol. percent) max.	0.05
Aldehydes (wt. percent) max.	0.05
Water (wt. percent) max.	0.05

Typical Inspections

Butene-2 (vol. percent)	97.0
Butene-1 (vol. percent)	0.8
N-Butene (vol. percent)	1.0
Butadiene (vol. percent)	0.8
Pentenes (vol. percent)	0.20
Acetylene (vol. percent)	0.1
Isobutane (vol. percent)	0.03
Isobutylene (vol. percent)	0.08
Aldehydes (wt. percent)	0.02
Water (wt. percent)	0.05

Shipping Information

Tank Cars

Shipping Weight (approx.) 60° F — 5.15 pounds per gallon

Texas Butadiene & Chemical Corporation
440 Bank of the Southwest Building
Houston 2, Texas

Sig. prof. Natta

MONTECATINI
SETTORE PROGETTI E STUDI

Milano, 11 Luglio 1958.

Preg.mo Signore
Ing. Piero Giustiniani,
S e d e.

Ho avuto oggi, dopo breve preavviso, la visita di Mr. L.C. Kemp, Vice-President della Texas Co., che era prima stato dal prof. Natta.

La sua Società ha produzioni chimiche, tra le quali butadiene, e fabbricazione di GRS da parte di Associate, una delle quali la U.S. Rubber.

Dispone di etilene e propilene; ha una raffineria a Trinidad che tratta 120.000 barili/giorno (6Mt/anno) di grezzo, con possibilità di fare etilene e propilene. A Trinidad vale il diritto brevettuale inglese.

Texas Co. sarebbe interessata a fabbricare copolimeri elastici, e si rivolgerà a noi verso la fine dell'anno.

f.to: Orsoni

Or/sl.

MONTECATINI
Società Generale per l'Industria Mineraria e Chimica

AMMINISTRATORE DELEGATO

Data, 3 giugno 1958

PROMEMORIA

G/ra

per il Signor Prof. GIULIO NATTA

Caro Natta,

prima di scrivere a Mr. Stokes della Texas Butadiene Chemical Corp. sarà bene che rifacciamo, a breve scadenza, il punto sul butadiene 1 - 4 cis e cioè non appena comincerà a funzionare l'impiantino che SERE sta costruendo a tutt'uomo.

Cordiali saluti.

Hotel Pierre
NEW YORK 21, N.Y.

Spinco Division of
Beckman Instruments
Belmont, Calif.

Ultracentrifuga - $ 22.000
Temperatura fino a 120° C.
La Dow ha acquistato
il 212 mo apparecchio
ne sono stati venduti 275

Gaertner Tool Makers
Microscope

Gaertner Scientific Corp.
Chicago, Illinois

March 18, 1958

Mr. Eunice Thomas Miner
Executive Director
THE NEW YORK ACADEMY OF SCIENC
2 East Sixty-third Street
NEW YORK 21 - N.Y. - U.S.A.

Dear Mr. Miner,

Prof.

Please excuse my long delay in answering your very kind and appreciated letter of February 7 (ETM:jn). I regret very much that, due to a misunderstanding of my secretary, my reply has not yet been sent to you.

I confirm you that I shall be honoured to participate to the reception that will be held in the Academy building on April 25, and I wish to thank you very deeply.

Awaiting the pleasure to meeting you, I send you my best personal regards.

Very sincerely yours,

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

7 February, 1958

ns foto ringraziando e accettando 18/3/58

Professor Giulio Natta
via Mario Pagano 54
Milano, Italy

Dear Professor Natta:

I was among those Members of the Academy to whom it gave great satisfaction to learn that the Council of our organization conferred a Fellowship upon you at its Annual Meeting held in December, 1957.

In addition, I have learned from Dan Walsh that you are planning to come to this country in April and we have, therefore, arranged to hold a press and informal reception in your behalf in the Academy building on April 25, from 4 to 7 P.M.

It will be a great privilege and pleasure to have you with us on this occasion.

With my cordial, warm regards,

Most sincerely yours,

Eunice Thomas Miner
Executive Director

ETM:jn

CC: Dan Walsh

Am

January 8, 1958

Mr. Eunice Thomas MINER
Executive Director
The New York Academy of Sciences
2 East Sixty-Third Street
NEW YORK 21 - N.Y. - U.S.A.

Ref. No. 2192/rl

Dear Mr. Miner,

I received just now, coming back fm Milan from a travel abroad, your kind letter of December 6, that arrived to Milan only on December 30, 1957. Only today, therefore, I may thank you and the New York Academy of Sciences for the great honor you conferred to me with my election to Feddowship of your Academy, that I appreciated very much. I thank you also for the certificate.

Most probably, next April I shall have the opportunity of coming to the United States and I shall be glad to visit The New York Academy of Sciences.

With my deepest thanks and best wishes, I remain,

Very sincerely yours,

Giulio Natta

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

December 6, 1957

Doctor Giulio Natta
Polytechnic Institut of Milano
Milano, Italy

Dear Doctor Natta:

It gives me great pleasure to inform you that at the Annual Meeting, held December 5, 1957, The New York Academy of Sciences, of which you are an Annual Active Member, unanimously elected you a Fellow of the Academy in recognition of your achievements in Science.

Election to Fellowship is a distinguished honor, conferred on a limited number of members who, in the estimation of the Council, have done outstanding work toward the advancement of Science.

An engraved certificate in recognition of this honor is enclosed herewith.

With my cordial, warm regards,

Most sincerely yours,

Eunice Thomas Miner
Executive Director

ETM:es

Acn.

THE NEW YORK ACADEMY OF SCIENCES

Richieste in data 3 Giugno 1958 le seguenti pubblicazioni :

N.26 - Half Life of Rhenium and Ages of Minerals

N.31 - Quantum Aspects of Catalysis : Oxidations and other Reactions of Ethylene

March 10, 1958

Dear,

Mr. Eunice Thomas Miner
Executive Director
The New York Academy of Sciences
2 East Sixty-third Street
NEW YORK 21 - N.Y. - U.S.A.

Referring to your circular, concerning the publications that your Academy will issue during 1958, I would appreciate very much receiving a copy of the following reprints, if available :

No.4. - Genetic Concept for the Origin of Cancer
No.6.-Nuclear Magnetic Resonance
No.8 - Photoreception.

Thanking you in advance, I send you my best regards.

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

Dear Member:

The following publications will be issued by the Academy during 1958 as part of the current punlication program. Members of the Academy who desire to receive these papers will kindly request the Executive Director to send them, and they will be mailed free of charge AS THEY ARE READY FOR DISTRIBUTION.

Active, Sustaining, Life, Patron, Benefactor and Honorary Life Members may receive, UPON REQUEST, one copy each of the current numbers of the ANNALS. Student Members are entitled to receive one complete monograph, or up to 150 pages of the smaller ANNALS.

1. Chlorothiazide and Other Diuretic Agents.
2. Animal Disease and Human Health. (Please do not repeat request from 1957 list)
3. New Steroid Compounds with Progestational Activity.
4. X Genetic Concept for the Origin of Cancer.
5. The Development of High School Students Toward Careers in Biology.
6. X Nuclear Magnetic Resonance.
7. Hodgkin's Disease.
8. X Photoreception.
9. Third Tissue Homotransplantation Conference.
10. Contribution of the Physical, Biological, and Psychological Sciences in Human Disability.
11. The Uterus.
12. Enzymes in Blood.
13. Methodological Problems in Psychoanalysis.
14. Surgical Concalescence.
15. Screening Procedures in Experimental Cancer Chemotherapy.
16. Biochemical Aspects of Congestive Heart Failure.
17. Axenic Culture of Invertebrate Metazoa: A Goal.
18. Biology of the Amoeba.
19. The Influence of Hormones on Lipids Metabolism in Relationship to Arteriosclerosis.
20. Analysis of Mixtures of Volatile Substances.
21. Hematopoietic Mechanisms.
22. The Germfree Vertebrates.

chiesto pubblicazioni separate

DOCTOR GIULIO NATTA
VIA MARIO PAGANO 54
MILANO, ITALY

Milano, 28 Gennaio 1958.

NOTIZIE PERSONALI

La nomina del prof. Natta a "fellow" della New York Academy of Sciences.

Il 6 Dicembre 1957 la New York Academy of Sciences ha deliberato la nomina del prof. Natta a"fellow" in riconoscimento dei suoi meriti scientifici.

Questa nomina costituisce un alto onore finora conferito ad un limitato numero di persone che si sono distinte per il loro merito per il progresso della scienza.

POLITECNICO MILANO

IL RETTORE

F/C Milano, 16 dicembre 1957

chiar. mo prof. Giulio Natta

Caro Natta,

a seguito della comunicazione telefonica di ieri ti mando, come d'accordo, copia della lettera della The New York Academy of Sciences rinnovando le più vive felicitazioni per la tua nomina, unico scienziato italiano che abbia ottenuto nel 1957 l'alto riconoscimento.

Coi più affettuosi saluti ed auguri.

G. Cassinis

(Gino Cassinis)

America

F/C COPIA

THE NEW YORK ACADEMY OF SCIENCES
2 east sixty -third street
New York 21, N.Y.

6 December 1957

Head, Public Relations Division
Polytechnic Institut d' Milano
Milano, Italy

Dear Sir:

We are today informing Professor Giulio NATTA of your institution, both by letter and with an engraved certificate, that at the Annual Meeting of The New York Academy of Sciences held December 5, 1957, the title of Fellow of The New York Academy of Sciences has been conferred upon him.

Election to Fellowship in the Academy is a signal, distinguished honor, conferred upon a limited number of Members, who, in the estimation of the Council, have done outstanding work toward the advancement of science.

With my cordial, warm regards,

Most sincerely yous,

F/to illeggibile

(Executive Director

ETM:ms

---

al chiar. mo prof. Natta - per notizia, con vivi rallegramenti - allegando l'elenco completo in data 5 dicembre 1957
(Nominations for Fellowship - 195)
16 dicembre 1957

The Quaker Oats Company

CHEMICALS DEPARTMENT

COPY

Chicago.

May 1, 1958

Dr. Oronzio De Nora
Oronzio De Nora
Impianti Elettrochimici
Via Bistolfi 35
Milano, Italy

Dear Doctor De Nora:

We are enclosing herewith two copies of the termination agreement which has been completed by inserting the date, May 1, 1958, and by the signature of Mr. C. S. Gordon, Executive Vice President of Quaker. We are also enclosing our check for $22,500.00 in fulfillment of our part of the termination agreement.

We, too, hope that there will be other opportunities for working together. When you are next in Chicago please be kind enough to save time for a visit with us.

Sincerely yours

Homer R. Duffey

Homer R. Duffey
Vice President
Chemicals Division

HRD:shb
Enclosures

Copy to:
Professor G. Natta

March 22, 1958

Prof. Arthur TOBOLSKY
Princeton University
Frick Chemical Laboratory
PRINCETON - N.J. - U.S.A.

Ref. No. 451/rl

Dear Professor Tobolsky,

I have been informed that Montecatini Co. offered to America-Italy Society an amount to institute a scholarship for a American student, so that this may develop a period of work at the Polytechnic Institute of Milan.

I do not know exactly the ampunt of the scholarship, but I think it would be nearly 2000$. It is undoubtely sufficient for an year staying in Milan.

I do not know if there are other candidates, but if you know some student or graduate to propose, please send his name to "Chemore Corporation - 21 West Street, New York 6, N.Y.". It is probable that the schdarship assignation will be at the end of next April, after my coming back from San Francisco to New York.

Awaiting the pleasure to meet you, I send you my best personal regards.

Very sincerely yours,

G. Natta

Am.

May 20, 1958

Professor Melvin Calvin,
Department of Chemistry
University of California
BERKELEY - California

Ref.No.619/rl

Dear Professor Calvin,

I have been back to Milan a fortnight ago, but I had to leave again Milan immediately to go to Ferrara, Terni and Rome, and I returned just now. Please excuse me, if I delayed so much in thanking you for all the kindnesses we received during our stay in Berkeley. Mrs.Natta and I did not forget our stay in California, that is very beautiful, and, above all, the cordial hospitality of Mrs.Calvin and yours.

Till now I have not sent to you the sample of isotactic polypropylene as we have not recent samples of soluble polymers having low molecular weight, and I fear that the old not-stabilized samples are a little peroxidized. I hope that in a few days we shall prepare new samples. Under separate cover, I have sent to you a little sample of chromium hexacarbonyl and of benzenechromium tricarbonyl.

Please convey my deepest thanks to Mrs.Calvin also from my wife. We hope that you will have soon the opportunity to come to Europe and to visit us in Italy, also in our mountain house.

With my kindest regards, I remain,

Sincerely yours,

G.Natta

22 March 1958

Professor Melvin Calvin
University of California
Department of Chemistry
BERKELEY 4 - California - USA

Ref.No.451/rl .

Dear Professor Calvin,

I have been informed that Montecatini Co. offered to American-Italy Society an amount to institute a scholarship for a American Student, so that this may develope a period of work at the Polytechnic Institute of Milan.

I do not know exactly the amount of the scholarship, but I think it would be nearly 2000 $. It is undoubtely sufficient for an year period in Milan.

I do not know if there are other candidates, but if you know some student or graduate to propose, please send his name to "CHEMORE CORPORATION - 21 West Street - New York 6, N.Y. - It is probable that the scholarship assignation will be at the end of next April, after my coming back from San Francisco to New York.

Awaiting the pleasure to meet you, I send you my best personal regards.

Very sincerely yours,

G.Natta

ACS
mtg

March 20, 1958

Professor Melvin Calvin
University of California
Department of Chemistry
BERKELEY 4 - California - USA

Ref.No.302/rl

Dear Professor Calvin,

Please excuse my long delay in answering your kind letters of February 17 and 20, concerning also the hotel servation. Owing to unforeseen ciruemstances, I had to change my travel schedule; therefore, I shall arrive to Washington at the end of ~~April~~ March. Then, Mrs.Natta and I shall make a short trip before our arrival to Berkeley, and we will be in Berkeley most probably on April 8. We shall leave Berkeley to San Francisco on April 12, or 13. Therefore, I shall be very grateful if you may confirm our hotel servation for this period.

We both are looking forward to seeing Mrs.Calvin and you, and in the meantime, we send you our best regards and thanks.

Very sincerely yours,

G.Natta

Juanuary 9, 1958

Am

Professor Melvin CALVIN
Department of Chemistry
University of California
BERKELEY 4 - California

Ref. No. 13/rl

Dear Professor Calvin,

I have just received your very kind letter of December 30, and I wish to thank very much Mrs. Calvin and you for the very appreciated invitation to spend at your home the few days that we shall be in Berkeley. Mrs. Natta will come with me to the United States, and will be very pleased to meet again Mrs. Calvin. However, we do not want to trouble you in any way!

Till now I have not yet decided my travel schedule. I foresee to come to San Francisco directly by "polar" line.

Please, inform me if you prefer that I come to Berkeley before the A.C.S. Meeting or after this.

Thanking you again , also from Mrs. Natta, I send you my kindest regards and best wishes.

Sincerely yours,

Giulio Natta

~~From the desk~~ of

F. R. EIRICH

impressions

Just to show that we thought of you and missed you.

With kindest personal regards,

Yours,

Sincerely

F. Eirich

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
AND CHEMICAL ENGINEERING
BERKELEY 4, CALIFORNIA

December 30, 1957

13

AIR MAIL

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

It has just occurred to us that it would be very pleasant for you, and certainly more convenient for you, to spend the few days that you will be in Berkeley at our home. I hope that you will find it convenient to do so and that you will bring Mrs. Natta with you.

Greetings and very truly yours,

Melvin Calvin

Melvin Calvin
Professor of Chemistry

MC:mt

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
BERKELEY 4, CALIFORNIA

Mini Aerei

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32, Milano

USA
465 - VMP

Dear Professor Natta,

We are equipped to handle 2" x 2" lantern slides, and you may plan to use them here.

Sincerely yours,

Harold S. Johnston

ACS Meeting
mitt

March 12, 1958

Mr. Harold S. JOHNSTON
Department of Chemistry
University of California
BERKELEY 4 - California

/rl

Dear Mr. Johnston,

following up my letter of March 4, I shall have to ask you some information about the slides I shall use during my lecture at your University.

I should like to know if I may use slides of 2"x 2" external size (that is, 1"x 1,5" internal size), these being the more usual sizes used in Europe.

Awaiting your kind reply, I am,

Sincerely yours,

G. Natta

J. Francis

March 4, 1958

Mr. Harold S. Johnston
Department of Chemistry
University of California
BERKELEY 4 - California

Rif. 341/rl

Dear Mr. Johnston,

many thanks for your kind letter of February 26. I wish to modify a little the general title you would give to my seminary, as follows : "Kinetics of stereospecific polymerization of α-olefines".

Looking forward to the pleasure of meeting you and Prof. Calvin ~~and you~~, I remain,

Sincerely yours,

G. Natta

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
BERKELEY 4, CALIFORNIA

February 26, 1958

ACS
Miniti

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

This is to acknowledge your letter of February 13 and to confirm the date and time of your talk to us: 4:10 P.M., April 10, 1958, at our regular physical chemistry seminar.

We agree with Professor Calvin that the choice of the exact topic is yours and that any you suggest will be of great interest here. We announce our seminars about two weeks in advance. If you are satisfied with a general title, we shall announce it as "Kinetics of Polymerization". If you prefer to announce a specific title, Please notify me in due time.

We are looking forward to your talk here.

Sincerely yours,

Harold S. Johnston

Harold S. Johnston

HSJ:rb

- Kinetics of stereospecific polymerizations
of 2-olefines -

Berkeley. Calif.
invito

February 12, 1958

Mr. Harold S.Johnston
Department of Chemistry
University of California
BERKELEY, 4 - California

Ref.n.206/el

Dear Mr. Johnston,

many thanks for your kind letter of January 27, concerning the date for my seminary. I think that Thursday, 10th April, at 4:00, will be a convenient date, if you agree.

Awaiting the pleasure to meeting you and Prof. Calvin, and to visiting your important University, I send you my best personal regards.

Sincerely yours,

G.Natta

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
BERKELEY 4, CALIFORNIA

January 27, 1958

Professor Giulio Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

Now that your plans for travel are becoming more definite, let me go into more detail concerning our seminar schedule. Professor Calvin tells me that you could come either just before or after the meeting of the American Chemical Society in San Francisco. Let me invite you to come before this meeting. In my previous letter to you, I mentioned only our Tuesday evening research conference. We have, however, other seminars each week, so that if the Tuesday before the convention is too early for you, there are other possibilities. Our regular seminar in physical chemistry is held at 4:00 P.M. on Thursdays, and we can schedule a special seminar on Friday, if necessary. Thus we have a sufficient number of possibilities that we can surely accomodate your plans. In summary, please select one of the following times for your talk to us: Tuesday evening, Thursday at 4:00, or Friday at 4:00. Let me know which is your preference as your plans become definite.

We are able to offer you an honorarium of one hundred dollars for your talk to us.

We are looking forward to your visit in this area and to your address to our group.

Sincerely yours,

Harold S. Johnston

Harold S. Johnston

UNIVERSITY OF CALIFORNIA

RADIATION LABORATORY
BERKELEY 4, CALIFORNIA

February 19, 1958

AIR MAIL

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

At the request of Prof. Calvin, I am enclosing a copy of the reservation information at the Hotel Claremont for yourself and Mrs. Natta, for the period April 8 - April 14.

Sincerely yours,

Marilyn Taylor

(Mrs.) Marilyn Taylor
Secretary to Prof. Calvin

Enc

Am

May 2, 1958

Mr. Robert W. Warfield
Chemistry Department
U.S. Navy Ordnance Laboratory
White Oak
Silver Spring, Maryland - USA

/rl

Dear Mr. Warfield,

with reference to your request of April 16 for a reprint of the Natta's paper appeared on J. Polymer Sci. 20, 251 (1956), I inform you that we have not more reprints available, owing to the great request.

With best regards.

Truly yours,

Secretary to Prof. Natta

December 3, 1958

Prof. Irving Wender
Chief Organic Chemistry Sect.
U.S. Dept. of the Interior
Bureau of Mines
4800 Forbes Avenue
Pittsburgh 13, Pennsylvania

1278/mb

Dear Professor Wender,

Thank you very much for your kind letter of November 25 and for the enclosed preprints.

Your papers on the new reducing system with lithium in ethylenediamine and the acetylene carbon monoxide-dicobalt hexacarbonyl complex have been proved to be of great interest to my coworkers and myself.

As far as the serie of dilactones compounds is concerned, which are prepared in our Laboratories, a note by G. Albanesi and M. Tovaglieri on that subject is actually in press on "La Chimica e l'Industria".

Therefore, I shall greatly appreciate having it included in the references of your paper and, hereby, I wish to thank you.

I was pleased to learn that you hope to be able to come next year to Milan. My coworkers and myself will be glad if you will deliver a new seminar at our Institute.

Prof. Ercoli will write to you directly and reciprocate your kind regards.

Yours sincerely,

G. Natta

Ann. (IV.)

November 7, 1958

Prof. Irving Wender
Chief Organic Chemistry Sect.,
Bureau of Mines
U.S.Dept.of the Interior
Region V
4800 Forbes Street
Pittsburgh 13
Pennsylvania

1183/mb

Dear Professor Wender,

I wish to thank you again for the seminar : "Some Recent advances in metal carbonyl chemistry" you delivered at our Institute. Such lecture was of great interest, as well as the discussions to which it gave raise, allowing an useful exchan= ge of opinions among the researchers working in similar fields.

All my co-workers and the other chemists coming also from Research Centers of other cities to attend your lecture, were deeply interested by the exceptional improvements reached by your Institute in the metal carbonyl chemistry and by the importance of such studies in view of a clarification of the processes in which such complexes are used as catalysts.

I want hereby to join my sincere wishes to those of all people attending your lecture, hoping that you will be able to come again here next year and stay few days at the Po= lytechnic of Milan. I will most appreciate it if you could deliver a seminar of more than one day about matters dealing with your recent works.

../..

November 7, 1958

I would moreover be very grateful if you could consent to have your paper issued shortly on our Review "La Chimica e l'Industria"; in that case, please let us have your manuscript and we will take care to have it translated into Italian.

May I renew my warmest thanks and regards. Looking forward to meet Mrs. Wender and you very soon in Italy, I remain,

Sincerely Yours,

G. Natta

22 Ottobre 1958

Egr. Ing. P. Giustiniani
Amministratore Delegato
Società Montecatini
S e d e

Rif. N. 1123/rl

Caro Ingegnere,

con riferimento alla Sua lettera del 18 settembre, desidero confermarLe che il seminario del Dr. Wender si terrà presso il nostro Istituto martedì prossimo, 28 ottobre, alle ore 16.

Provvedo direttamente ad informare della cosa l'Ing. Ballabio, il Dr. Saccenti, l'Ing. Marullo e l'Ing. Orsoni perchè facciano partecipare al seminario i tecnici dei loro Settori particolarmente interessati nel campo della [redacted] dell'ossido di carbonio.

Il titolo del seminario è :"Some Recent Advances in Metal Carbonyl Chemistry".

Cordiali saluti.

G. Natta

22 Ottobre 1958

Egr.Ing.V.Orsoni
Direttore SEPS
Società Montecatini
S e d e

Rif.N.1128/rl

Egregio Ingegnere,

Desidero informarLa che martedì prossimo, 28.10; alle ore 16, il Dr.Irvin Wender, Ph.D., Direttore della Sezione Chimica del Bureau of Mines (Regione V) di Pittsburgh, terrà presso il nostro Istituto un seminario dal titolo :

"Some Recent Advances in Metal Carbonyl Chemistry"

Il Dr.Wender è uno dei migliori specialisti nel campo dell'ossosintesi e della chimica dei metallo alchili e tratterà un argomento di notevole importanza scientifica ed applicativa.

I migliori saluti.

G.Natta

22 Ottobre 1958

Spett.Rettorato del Politecnico

Rif.N.1129/rl

S e d e

Desidero informarVi che martedì prossimo, 28 Ottobre, alle ore 16, il Dr.Irvin Wender, Ph.D., Direttore della Sezione Chimica del Bureau of Mines (Regione V) di Pittsburgh, terrà presso il nostro Istituto un seminario dal titolo :

" Some Recent Advances in Metal Carbonyl Chemistry"

Provvederemo noi stessi ad informare della cosa i Professori e gli Assistanti del Politecnico, interessati in tale campo.

I migliori saluti.

(Prof.G.Natta)

22 Ottobre 1958

Chiar.mo Prof.A.Quilico
Direttore Istituto di Chimica
Generale del Politecnico
S e d e

Rif.N.1130/rl

Caro Quilico,

desidero informarti che martedì prossimo, 28 ottobre, alle ore 16, il Dr.Irvin Wender, Ph.D., Direttore della Sezione Chimica del Bureau of Mines (Regione V) di Pittsburgh, terrà presso il nostro Istituto, un seminario dal titolo :

"Some Recent Advances in Metal Carbonyl Chemistry"

Il Dr.Wender è uno dei migliori specialisti americani nel campo dell'ossosintesi e della chimica dei metallo alchili e tratterà un argomento di notevole interesse scientifico ed applicativo.

Se qualcuno dei tuoi assistenti e dei laureati che lavorano con te sono interessati all'argomento, sarò ben lieto che partecipino a tale seminario.

Molti cordiali, saluti.

(G.Natta)

March 4, 1958

Prof. Irving WENDER - Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research
Central Experiment Station
U.S. Dept. of the Interior
Bureau of Mines - Region V
4800 Forbes Street
Pittsburgh 13 - Pennsylvania

Ref. N. 345/rl

Dear Professor Wender,

I received your kind letter of February 26, and I am very sorry to know that you cannot come to Turin next May. However, I am glad to know that your visit to Europe is only delayed, and I wish to invite you to deliver a seminar at our Institute, during your visit, next November. Please, let me know, some weeks before, the exacte date of your visit to Milan.

With kindest regards, I am,

Sincerely yours,

G. Natta

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

CENTRAL EXPERIMENT STATION

4800 FORBES STREET
PITTSBURGH 13, PENNSYLVANIA

February 26, 1958

Air Mail

Professor Giulio N. Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Professor Natta:

Although the head of our laboratories has looked with favor on my attending the Turin meetings, it has been decided during the past week that I should visit Europe in the fall rather than this spring. It is important that I attend a coal meeting in Brussels about November 1 and the Bureau will pay my expenses for a month's visit to the continent at this time.

I am very disappointed at missing the Turin meeting and the chance to come to Milan in May. I shall certainly take advantage of the trip to visit Milan--probably in early November. May I have the honor of delivering a seminar on our work at your Institute at that time.

In closing, I wish to thank you deeply for your cordial and helpful letter written so promptly.

With kindest regards, I am

Sincerely yours,

Irving Wender

Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research

rispondere che ci non spiace
che non vengo. Tra
poi mi sarei lieto
~~[illegible]~~ di

February 1, 1958

Prof.Irving WENDER, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research
U.S.Dept.of the Interior
Bureau of Mines
4800 Forbes Street
PITTSBURGH 13 - Pennsylvania -USA

Ref.No.176/rl

Dear Professor Wender,

I have just received your letter of January 25. I am very pleased to learn about the developments of your works in the field of the new organometallic complexes. Your works have been ~~followed~~ read with great interest here in Italy. In our country, the production of aldehydes and alcohol from olefins by oxosynthesis, has now carried out also in a commercial scale.

I am sure that any communication you may present at the VIII Congress of Chemistry, that will be hold in Turin next May, sponsored both by Italian and English Chemical Societies, will be of great interest to the Italian and English people.

As you know, in my Institute there are people working both in the fields of the CO chemistry and of metallorganic complexes. We all shall be very pleased if you, after the Turin Congress, may come to Milan to visit our Institute and eventually to give a seminary at our Institute. We may contribute to your travel expenses from Turin to Milan, and to your staying in Milan.

Looking forward to seeing you in Italy, I send you my best personal regards, and best wishes.

Giulio Natta

February 1[illegible] 1958

Prof.Irving WENDER - Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research
U.S.Dept.of the Interior
Bureau of Mines
4800 Forbes Street
PITTSBURGH 13 - Pensylvania-USA

Ref.No.176/rl

Dear Professor Wender,

I am sending you, enclosed, copy of a letter I xrote to Prof.Marotta, about your participation to the Turin Congress

If it is necessary to be a member of Italian or English Chemical Societies, to participate to that Congress, I shall inscribe you as a member of the Italian one.

With kindest personal regards, I am,

Sincerely yours,

G.Natta

Encl/

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
4800 FORBES STREET
PITTSBURGH 13, PENNSYLVANIA

January 25, 1958

Professor Giulio N. Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Professor Natta:

I would like to present possibly two papers on a new organometallic complex and on fuel chemistry at the National Congress of Chemistry in Turin next May. I have taken the liberty of mentioning your name to Professor Marotta in a letter asking for information about the meeting; a copy of this letter is enclosed.

I expect that the Bureau of Mines will pay my expenses for the trip. But I should like to ask a favor of you. Obtaining my expenses for the trip will be much easier if you could send me a letter inviting me to come to Italy to attend these meetings and visit your laboratory. Part of coming to Turin, of course, will be the opportunity to see your laboratory, meet Dr. Ercoli and then, perhaps, to visit Dr. Pino. The wording of such a letter is not critical and an invitation to Milan and a suggestion to attend the Turin meetings would be fine.

Your work on isotactic polymers has maintained the brilliant standard of your previous researches. As yet, my laboratory has no interest in this field and we are still working on homogeneous catalysis by transition metals.

I should be grateful for a prompt reply so that I can start making arrangements for the trip.

Sincerely yours,

Irving Wender

Irving Wender
Chief, Organic Chemistry Section
Branch of Coal-to-Oil Research

January 24, 1958

Air Mail

Professor D. Marotta
VII Congresso Nazionale di Chimica
Societa Chimica Italiena
Instituto Superiore di Sanita
Viale Regina Elena 299
Rome, Italy

Dear Professor Marotta:

I should like to present two papers, or possibly three, on the chemistry of fuels and on the isolation and identification of a new organometallic complex at the joint meeting of the Italian Chemical Society and the Society of Chemical Industry in Turin. I am not a member of either of these chemical societies, but belong to the American Chemical Society and would like to know whether I will be permitted to present papers at this meeting. I am a friend of Professor Giulio N. Natta, who knows of my work here at the Bureau of Mines.

Would you please send me the necessary application forms for attending this meeting? I should greatly appreciate receiving information concerning the exact dates of the meeting, the application fees, housing arrangements, and other meeting information.

With kindest regards, I am

Sincerely yours,

Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research

September II, 1958

Prof. Irving Wender
Chief Organic Chemistry Sect.,
Bureau of Mines
U.S. Dept. of the Interior
Region V
4800 Forbes Street
Pittsburgh 13
Pennsylvania

958/mb

Dear Professor Wender,

I was very pleased to learn from your letter of August 27 that you are going to come to Europe and to be in Milan on Monday October 27.

I shall be very glad if you will deliver a seminar on your interesting work at the Polytechnic of Milan.

Only I beg you to let me know in advance the date of your arrival so that I shall have a room booked for you, if you like it.

Moreover, I shall be much interested to know the topics you like to discuss in order to enable us to send out the invitations to the interested people.

As far as it concerns the date to be arranged for the meeting, it would be preferable for us Tuesday 28th, at about 5 P.M. but you may do it also on Monday 27, if you prefer.

As touched upon in our previous correspondence, we will contribute towards the expenses incurred by you in your visit to Milan.

Looking forward to seeing you soon, I remain, dear Professor Wender,

Sincerely yours,

Prof. G. Natta

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

CENTRAL EXPERIMENT STATION

4800 FORBES STREET
PITTSBURGH 13, PENNSYLVANIA

August 27, 1958

Professor Giulio N. Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Professor Natta:

Please excuse my long delay in writing. I shall visit the Continent in late October and early November and would like to come to Milan on Monday, October 27, 1958. I will be prepared to deliver a seminar on our work at the Bureau of Mines, if such a meeting can be arranged.

Although this date is convenient for me, I can come to Milan later during the same week, if another day is more convenient for you.

I am looking forward to seeing you and visiting your laboratory.

With kindest regards, I am

Sincerely yours,

Irving Wender

Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research

Professor Pino ed
Enrico

THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PENNSYLVANIA

COLLEGE OF CHEMISTRY AND PHYSICS
DEPARTMENT OF PHYSICS

January 31, 1958

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Thank you for your letter of January 25. I am enclosing seven (7) reprints of articles of which I am co-author; I hope these will be of use to you. I appreciate very much your efforts in attempting to arrange some lectures in industrial laboratories for me.

With my best regards,

Sincerely yours,

A.E. Woodward

A.E. Woodward
Asst Professor of Chemistry

AEW/mr

Ringraziare Pedeni Coll. precedenti

January 25, 1958

Prof. A. E. WOODWARD
The Pennsylvania State University
College of Chemistry and Physics
UNIVERSITY PARK - Pennsylvania
(U.S.A.)

Ref. N. 94/rl

Dear Professor Woodward,

I received your letter of January 13, 1958, in which you let me know that you, during the first two weeks in April, could give some lectures on very interesting topics.

Unfortunately, the first weeks of April are Easter vacations for Italian Universities; therefore, an eventual lecture would not have the due auditory. I too shall leave Italy to United States on the beginning of April, to attend later, the 133rd Meeting of the American Chemical Society.

If you might send me reprints of your works, so that I may examine better your activity, I shall look for a possible lecture at an industrial Laboratory. It should rather contrast with our uses, as generally, it is easier, for a foreign scientist, to receive an invitation from Industries for a lecture to be held at University Laboratories.

Therefore, I am sorry not to be able to invite you for a lecture, because the topics : dynamic mechanical properties of polymers, and autoxidation of hydrocarbons, are very interesting for us.

With my best regards, I am,

Sincerely yours,

Giulio Natta

THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PENNSYLVANIA

COLLEGE OF CHEMISTRY AND PHYSICS
DEPARTMENT OF PHYSICS

January 13, 1958

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Between the dates of April 15-17, 1958 I am planning on presenting a paper on "Dynamic Mechanical Behavior of Partially Crystalline Polymers" at a meeting of the Plastics and Polymers Group of the Society of Chemical Industry in London, England. During the two weeks in April preceeding this meeting, I would like to visit some of the industrial and academic polymer laboratories in England, and on the continent. In order to do this I am in need of funds to help defray the expenses of this trip. I would like to find out if it would be at all possible for you to arrange for me to give some lectures at some of the industrial laboratories such as Montecattini or some academic laboratories.

Three topics which I could speak on are:

1) dynamic mechanical properties of polymers from 80°-550°K in the audiofrequency range (including pile and Co^{60} irradiated polyethylene, high density polyethylene, crystalline polypropylene);

2) polydispersity and configuration of poly-γ-benzyl-L-glutamates; and

3) the autoxidation of hydrocarbons.

Any help you can be in this matter would be greatly appreciated by me.

With my best regards,

Sincerely yours,

A. E. Woodward

A. E. Woodward
Asst Professor of Chemistry

AEW/mr

USA

1959

4th December 1959

Mr. Hilary Koprowski President
of the New York Academy of Scien
of Sciences
2 East Sixty-third Street
New York (U.S.A.)

ur refs.1239/eg

Dear Mr. Koprowski,

With great pleasure I am forwarding to you, through the courtesy of Mr.Lucini of Chemore Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytechnic Institute on stereospecific polymerization and stereoregular polymers.

This collection may also prove useful to you as a compact reference, since the numerous papers were, up to now, rather scattered in many publications.

With my best personal regards,

I am,

Sincerely yours,

G.Natta

Dec. 22, 1959

Lore Henlein, Assistant
Vice President,
Academic Press Inc.
111 Fifth Avenue,
New York 3, N.Y. (U.S.A.)

our ref. 1238/lv

Dear Dr. Henlein,

I wish to thank you very much for the complimentary copy of "Advance in Catalysis" vol. II, which you were kind enough to send me, and for the information you provided me about the JOUR= NAL OF COLLOID SCIENCE.

Mrs. Natta thanks you sincerely for all the courtesies you extended to her in Wiesbaden and she joins me in wishing you a happy New Year.

With best wishes and regards,

G. Natta

ACADEMIC PRESS INC.

PUBLISHERS

111 FIFTH AVENUE · NEW YORK 3, NEW YORK · TELEPHONE OREGON 7-6713

CABLE ADDRESS: ACADEMIC NEWYORK

WALTER J. JOHNSON, *PRESIDENT* KURT JACOBY, *VICE PRESIDENT*

December 1, 1959

Professor G. Natta
Istituto di Chimica Industriale
del Politechnico
Milano, Italy

Dear Professor Natta:

It was a very great pleasure to have met you and Mme. Natta at the Macromolecular Symposium in Wiesbaden a few weeks ago. In the meantime we trust that you will have received in good order the complimentary copy of "Advances in Catalysis," Volume 11, which was released on October 22, 1959. We are indeed sorry that this release date prevented your reviewing again the proofs of your contribution in order to carry out final corrections, but we sincerely hope that the general appearance of your section will meet with your approval.

You may recall that you had expressed interest in the JOURNAL OF COLLOID SCIENCE as a possible medium of publication, provided your manuscripts would be released in French. Word has just been received from the Editor-in-Chief, Professor V. K. La Mer, that he would indeed welcome receiving your manuscripts in French, with English summaries. Currently, such manuscripts could be published in about four months.

If we may be of assistance in providing any other information, please do not hesitate to let us hear from you. With best wishes,

Sincerely yours,

ACADEMIC PRESS INC.

Informare Natta

Lore Kenlein
Assistant Vice President

LH:eh

WALLEY PAPER CO.

Polyolefins. By A.V.Topchiev and B.A.Krentsel', U.S.S.R. Academy of Sciences. Translated from the Russian by A.D.Norris, MA., D.Phil.(Oxon), F.R.I.C., F.I.L. (Lecturer in Physical Chemistry, Hull University). Pergamon Press Ltd., Headington Hill Hall, Oxford, England. 1962. xi + 92 pp. 14.5 x 22 cm. Price, $ 3.50.

This short book is the translation into English, done by A.D.Norris of the Hull University, from the Russian edition published in 1959. Thus, only the information known prior to that year are reported; therefore, the wide knowledge that has been acquired in the field of polyolefins during these last few years is lacking. The Authors, who personally carried out research in this field, refer to some results and interpretations obtained from research ~~works~~ papers done performed in the Soviet Union. However, a complete bibliography is lacking of the works done either in Russia or in Europe and in the United States. The names of the authors are quoted, but without any reference to the journals and the year of their publication. The translator, who is an expert in the topics dealt with, has slightly modified the original text, and used, for some formulas, different symbols ar signs, wishing to make them more intelligible to those readers, who are used to the conventions adopted by European and American ~~chemist-physicists~~.

In the Introduction, mention is made of the low-molecular-weight ethylene polymers, obtained since 1884 by the Russian chemists, of the high polymers of ethylene, obtained at either high, or low, or medium pressure, which are far more important, and of polypropylenes, which are very important for their possible practical applications in the field of plastics, fibers and films.

Chapter I describes raw materials derived from petroleum from various ~~countries~~, and in particular the average composition of cracking gases, and of some Russian natural gases, which for their high content in C_2-C_5 fractions (30-70%) are more suitable than others for the production of ethylene and propylene by dehydrogenation.

Chapter II deals with the production of polyethylene by high-pressure processes, and describes its structure, its physical and chemical properties.

Chapter III deals with the production of polyethylene by the low-pressure Ziegler methods, and by the methods used by Ziegler for the production of the organometallic compounds of lithium and of aluminum. When comparing the properties of polyethylenes obtained at a high and at low pressure, the Authors refer to average products, but they do not consider the remarkable variations of the properties of both the high-pressure polyethylenes, whose properties markedly vary with the degree or with the molecular weight and crystallinity, and of the low-pressure ones, whose properties also vary considerably when varying the content of methyl groups (from about 0.3 % for polymers obtained with the aid of the most typical Ziegler-type catalysts, to less than 0.1 for those obtained with the aid of catalysts with a crystalline layer), which cause remarkable variations in crystallinity, and in the melting temperature (from 130 to 138°C).

Chapter IV describes the processes using moderate pressures developed by Philips and by ESSO Standard Oil of Indiana for the production of high-molecular-weight polyethylene with the use of catalysts based on oxides and containing chromium and molybdenum compounds respectively.

Chapter V deals with the variations of properties of polyethylene treated with penetrating radiations. On page 53, it is stated that the melting temperature of irradiated polyethylene can exceed 200°. Actually, this is either the softening or the viscous flow temperature, because the real melting temperature, which corresponds to the complete disappearence of crystalline regions, does not exceed 138° for any polyethylene; this value corresponds to the more linear ones, and it is reduced and not increased by the effect of radiations, which reduce the crystallinity.

Chapter VI : this chapter deals with the sulpho-chlorinated polyethylene; with its preparation and its properties. The term "Gipalon" used to indicate the product made in the U.S.A is certainly an error of transcription or of print, and it is certainly used instead of "Hypalon" (which is the correct name).

Chapter VII : it examines the industrial and domestic applications of polyethylenes. From this point of view the products obtained at high and at low pressure are compared also with regard to their use for the production of fibers.

Chapter VIII deals with the preparation, the properties and the practical applications of the new polymers of propylene, and describes results and steric configurations of the products, and their influence on the properties mainly referring to the results published by Italian authors. Among the applications of polypropylene, a brief description is made of fibers (compared with those of Nylon) and of films (compared with those of polyethylene).

Finally, the translator has included a short addendum, concerning the interpretation of the polymerisation processes mechanism. Considering that the translation was done in 1961, such an addendum is rather incomplete, above all with regard to the chain transfer processes, which regulate the molecular weight and the interpretations of stereospecificity.

This book is written clearly and can be easily read; thus it may be useful for students or non specialised chemists, who wish to get general information on the new polyolefins, which are acquiring a great importance in the field of macromolecular chemistry, also due to their applications.

This text also shows the interest aroused by this branch of chemistry in the countries beyond the iron curtain, about which information are often lacking.

The lack of a complete bibliography, as mentioned above, makes this book less useful for those who wish to become specialised in such a field.

Giulio Natta - Istituto Chimica Industriale - Politecnico - Milano (Italy)

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

August 27, 1959

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

authors: Corradini and Allegra
ms: COMM ED: Collinear Bonds at the Oxygen Atom

We enclose comments from a reviewer (III) of this Communication. Two other reviewers were unable to send comments. The manuscript should be revised according to the principal comments of the reviewer.

The manuscript is counted as 442 words text plus 160 words for the Patterson projections. It thus exceeds our limit of 500 words. If one diagram were eliminated, the limit would still be exceeded.

We could probably accept a revised manuscript as a Communication with the elimination of both figures. Alternatively, we will accept the manuscript as a Note in the Journal of Physical Chemistry with the figures and some revision. Please write us about your preference. When the manuscript is revised, it should be retyped with the data continusouly on line, as has been indicated on the original copy. Please send us revised portions in duplicate.

Yours sincerely,

ABFDuncan

A. B. F. Duncan
Assistant Editor

ABFD M

Encls. ms. orig.
rpt. Ref. III

IF YOU CANNOT RETURN THIS MANUSCRIPT WITH COMMENTS IN THREE WEEKS, PLEASE RETURN IT IMMEDIATELY WITHOUT COMMENTS

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

PLEASE RETURN SIGNED ORIGINAL AND ONE ANONYMOUS CARBON

COMMENTS OF REFEREE III

AUTHOR: Corradini and Allegra

TITLE: COMM.ED.: Collinear Bonds at the Oxygen Atom

COMMENTS: Interesting molecule. It should be made more clear that the coordinates at the top of page 2 are assumed, not determined at 0.001. Also, the structure given on page 2 is listed as being consistent with the scattering data. Other structures would also be consistent. For example for the Ti-O distance 1.78, 1.82 and 1.7812 would probably be consistent with the scattering data. Whereas 1.95 would not be consistent. Therefore some limits of uncertainty should be put on the structure on page 2. Observed and calculated f's should be given.

Department of Chemistry
University of Rochester
Rochester, New York
U.S.A.

ROCHESTER
JUL 22
5 PM
1959
N.Y.

U.S. POSTAGE
AIR MAIL 10¢

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci 32
Milano
ITALY

FIRST FOLD

SECOND FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

NO TAPE OR STICKER MAY BE ATTACHED

BOTTOM UP

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EDITOR

Department of Chemistry
University of Rochester
Rochester, New York

July 22, 1959

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, ITALY

Dear Dr. Natta:

authors: Corradini and Allegra
ms: COMM.ED.: Collinear Bonds at the Oxygen Atom

Your Physical manuscript has been received. I shall write you of our decision regarding it as soon as possible. Please let us have a second copy of your paper.

Very sincerely yours,

W. Albert Noyes, Jr.
Editor

W. Albert Noyes, Jr. Editor
Dept. of Chemistry
Univ. of Rochester
~~River Campus Station~~
Rochester 20, N. Y., USA

ROCHESTER
MAR 31
7 30 PM
N. Y.

U S POSTAGE
AIR MAIL 10¢

Dr. Giulio Natta
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

FIRST FOLD

SECOND FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

NO TAPE OR STICKER

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

March 31, 1959

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

We have accepted your manuscript entitled "X-Ray Determination of the Structure of Tricarbonylchromium-Benzene" for publication as a Communication to the Editor. It should appear in one of our April or May 1959 issues.

Very sincerely yours,

W. Albert Noyes, Jr.

W. Albert Noyes, Jr.
Editor

M

Department of Chemistry
University of Rochester
~~Rochester, New York~~
U.S.A.

ROCHESTER
MAY 11
1959
N. Y.

U S POSTAGE
AIR MAIL 10¢

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Plazza Leonardo da Vinci 32
Milano
ITALY

FIRST FOLD

SECOND FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

OFFICE OF THE EDITOR

Am.

Department of Chemistry
University of Rochester
Rochester, New York

March 11, 1959

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Plazza Leonardo da Vinci, 32
Milano
ITALY

Dear Dr. Natta:

authors: Corradini and Allegra
ms: COMM.ED.: X-Ray Determination of the Structure of Chromium...

Your Inorganic manuscript has been received. I shall write you of our decision regarding it as soon as possible.

Very sincerely yours,

W. Albert Noyes, Jr.
Editor

ITALCABLE

Preffisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

M54 NRD9 SANFRANCISCO CALIF 24 11 409P

PER LA RISPOSTA TELEFONATE AL N. 8838

LT NATTA ISTITUTO CHIMICA
DUSTRIALE POLITECNICO MILANO =
PZZA L DA VINCI

TELEGRAMMA via Italcable via Italo Radio

1959 MAG 12 10 44

12-5-1959

Spazio riservato agli estremi di ricevimento

596

ASSUME LY DATE YOUR LETTER MAY FOURTH INCORRECT AND JUNE
SIXTEEN OR SEVENTEEN SATISFACTORY ADVISE
= SHIFFLER CALRECO +

16-17/6

ITALCABLE

UM2196 NRD12 SANFRANCISCOCALIF 24 1 444P

PER LA RISPOSTA TELEFONATE AL N. 8838

NATTA ISTITUTO CHIMICA INDUSTRIALE MLN =

F NATTA
ITUTO CHIMICA INDUSTRIALE
ESSO POLITECNICO
LEONARDO DA VINCI 32 MILAN

TELEGRAMMA via Italcable via Italo Radio

207

12-5-1959

Spazio riservato agli estremi di ricevimento

LAN VISIT MILAN JUNE SIXTEEN AND SEVENTEEN PRINCIPE SAVOIA WILL
ELEPHONE YOU APPOINTMENT JUNE SEVENTEEN REGARDS = SHIFFLER CALRECO +

OTA. RITARDO DOVUTO A INSUFFICIENZA DI INDIRIZZO.

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

March 16, 1959

Dr. Giulio Natta
Istituto di Chimica Industriale del Politecnica
Plazza Leonardo Da Vinci 32
Milano, Italy

Dear Dr. Natta:

authors: Corradini and Allegra
ms: Comm ed: X-Ray Determination of the Structure of Chromium...

We shall be happy to accept your Communication after minor revision which is suggested by the enclosed comments of the reviewer.

If you will return the manuscript to us by air mail, it can probably appear in the April issue of the Journal.

Yours sincerely,

ABFDuncan

ABFD P

A. B. F. Duncan
Assistant Editor

Enc. ms. orig. - please send duplicate copies of any revised pages
Comments - Referee I

Corradini

Ren.

July 30, 1959

Mr.W.Albert Noyes, Jr.
Journal of the American Chemical
Society - Office of the Editor
c/o Departmentof Chemistry
University of Rochester
ROCHESTER - New York - USA

Rif.N.881/rl

Dear Mr.Noyes,

many thanks for your letter of July 22, concerning the manuscript by Corradini and Allegra; I send you here enclosed, a second copy of this paper.

I am waiting for our decision regarding the publication.

Very sincerely yours,

G.Natta

Encl/

THE FOREIGN SERVICE
OF THE
UNITED STATES OF AMERICA

Office of the Scientific Attache
American Embassy, Rome, Italy
December 7, 1959

Professor Giulio Natta
Direttore, Istituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano

Dear Professor Natta:

I would like to meet you and to visit your Institute briefly during my stay in Milano on December 17 and 18 to attend the "Giornata dell'Energia Nucleare". Unfortunately, I don't have an exact program of the "Giornata" as yet and therefore I cannot suggest a specific time.

However, I will telephone your office from my hotel, the Palace Hotel, soon after arriving in Milano with the hope of arranging a meeting. I have heard so much about your work on molecules that I would hate to leave without meeting you and seeing your Laboratory.

Sincerely yours,

Walter Ramberg
Walter Ramberg
Scientific Attache

17/12 ore 11,45

Lettera 17/7

July 2, 1959

Mr. W.Albert Noyes
Journal of the American
Chemical Society
c/o Dept.of Chemistry
University of Rochester
Rochester, 20 - N.Y.

Ann.

our ref. 800/lv

Dear Mr.Noyes,

I am sending you, enclosed, a paper:

P.Corradini, G.Allegra: "Collinear bonds at the oxygen atom".

that I would like to publish on the Journal of the American Chemical Society, as a letter to the Editor.

Looking forward to having your comments on our paper, I send you my best regards.

Sincerely yours,

G. Natta

Encl./manuscript

March 24, 1959

Mr.A.B.F.Duncan
Assistant Editor
J.Amer.Chem.Society
c/o Department of Chemistry
University of Rochester
River Campus Station
ROCHESTER 20 - NEW YORK - USA

Ref.No.368/rl

Dear Mr.Duncan,

Many thanks for your letter of March 16.

Please find enclosed the revised manuscript of the note by P.Corradini and G.Allegra, on X-Ray determination of the structure of tricarbonylchromium-benzene, to be published in your Journal.

With regard to the nomenclature of compounds of the type Cp(hydrocarbon)$(CO)_3$, we suggest the use of "tricarbonylchromium-benzene". This would be most helpful in the future for the description of the many organic derivatives of this type which will appear in the literature.

Sincerely yours,

G.Natta

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pennsylvania, U. S. A.

RESEARCH AND DEVELOPMENT DIVISION

September 29, 1959

Professor Giulio Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Professor Natta:

I am greatly interested in your work about the infrared spectra of deuterated polypropylenes. However, the spectra of the deuterated polymers which appeared in the Society of Plastic Engineers Journal 15 373 (1959) are rather small and cannot be read with high accuracy. If possible, I would greatly appreciate your sending me some samples of

a) Di-isotactic poly(trans-1-deuterio-propylene)

and

b) Di-isotactic poly(cis-1-deuterio-propylene).

These samples will be used to obtain their infrared spectra in our laboratory.

Thank you.

Sincerely yours,

AMERICAN VISCOSE CORPORATION

C. Y. Liang

C. Y. Liang

CYL/rbf

Perché non ne mandiamo gli spettri ultrarossi pubblicati? Prof. Natta

AVISCO

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pennsylvania

RESEARCH AND DEVELOPMENT DIVISION

July 31, 1959

Professor G. Natta
Millan Polytechnic Institute
Millan, Italy

Dear Professor Natta:

I read with great interest your paper "Progress in Five Years of Research in Stereospecific Polymerization". I would appreciate your sending me a reprint of this paper. 313

I am particularly interested in the infrared work on isotactic polymers. I noted you have some new work in this field in press (Reference 22 in your published paper mentioned above). If some pre-prints or reprints of this infrared work are available, I would like to have two copies, since my colleague, Dr. Marchessault, would also like to have a copy. + 2 Nuov Cim.

Very truly yours,

AMERICAN VISCOSE CORPORATION

C. Y. Liang

C. Y. Liang

CYL/rbf

Nuovo Cimento

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

May 6, 1959

Professor Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Professor Natta:

Enclosed you will find copies of some of the photographs that I took of you during my visit. They aren't quite as successful as I hoped they would be, but they do have a certain spontaneity about them!

Again, may I say how pleasant it was to see you again -- and how much I enjoyed meeting Senora and Senorina Natta.

Sincerely,

Arthur Weinberg

Dr. Arthur M. Weinberg
Vice President
Public Relations Dept.

AMW:km
Enc.

Ci auguro piacevole per le belle fotografie che mi sono state [illegible] [illegible]

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

February 13, 1959

Professor Giulio Natta
Isituto De Chimica Industriale
Del Politecnico
Piazza Leonardo
Da Vinci, 32 Milano
ITALY

Dear Professor Natta:

May I call your attention to the enclosed copy of CHEMICAL WEEK in which (pages 65-66) a report of the Society of Plastics Engineers' seminar appears.

You'll recognize the photographs as those that were taken in your hotel room here last June -- the quotations are directly from your manuscript.

I plan to be in Milan about April 6th and hope to have the pleasure of seeing you at that time.

Sincerely,

Arthur M. Weinberg
Account Group Manager
Public Relations Dept.

AMW:km
Enc.

Sept.9, 1959

A.B.F.Duncan, Assistant Editor
Journal of the American
Chemical Society,
Dept.of Chemistry,
University of Rochester,
River Campus Station
Rochester 20, New York

our ref.956/lv

Dear Mr.Duncan,

authors: Corradini and Allegra
ms: Comm ed: Collinear Bonds at the Oxygen Atom.

with regard to your letter of August 27, I wish to inform you that Corradini & Allegra accepted the main suggestions of reviewer III.

I send you the accordingly revised manuscript. We also enclose, in order that reviewer III may, if he wants, see it, a table with the accordance we have at the present stage of refinement between observed and calculated F's. Obviously, this long list cannot be published either in a communication to the Editor or in a Note. The structure will be further refined by three-dimensional means and the calculated F's are susceptible of further improvement. It is easy to notice, however, that the main features of the structure are already firmly assessed.

The manuscript may be published as a Communication to the Editor on "Journal of the American Chemical Society", suppressing, on page 2, the period: "As an example we report....electron density", and the two figures. Otherwise, I think the manuscript could be published as a Note on "J.Phys?Chem." in its complete form; but I prefer the first solution.

Thanking you, send you my best regards.

G.Natta

Oct. 8, 1959

Dr. C. Y. Liang,
American Viscose Co.
Marcus Hook, Pennsylvania

our ref. 1058/lv

Dear Dr. Liang,

I am sorry I cannot send you the samples:

1. Di-isotactic poly(trans-1-deutero-propylene)
2. Di-isotactic poly(cis-1-deutero-propylene)

you required in your letter of Sept. 29. In fact, we have just small quantities of these products which we employ in our present researches and which have already been required by others.

Owing to the fact that you are interested in the I.R. spectra, I inform you that a work in which these spectra will be described in detail and reported in different conditions is now in press. In this paper the peculiarities of the I.R. spectra will be widely discussed too.

We shall send you reprints of this paper as soon as available.

With my best regards.

G. Natta

May 14, 1959

Dr. A.M.Weinberg
Vice President
Public Relation Dept.
G.M.Basford Co.
60 East 42nd Street,
New York 17, N.Y.

Dear Dr. Weinberg,

thank you very much indeed for the beautiful photographs I received a few days ago.

Also my wife and daughter enjoyed having them very much, and they charge me to tell you that they most appreciate your kindness.

With my best regards,

Sincerely yours,

G. Natta

March 20, 1959

Mr.Arthur M.Weinberg
Account Group Manager
Public Relations Dept.
G.M.Basford Company
60 East 42nd Street
NEW YORK 17 - N.Y. - U.S.A.

Ref.N.322/rl

Dear Mr.Weinberg,

Many thanks for your kind letter of February 13, that I received only on March 11, and for your kind sending of the copy of Chemical Week.

I do hope to have the pleasure of seeing you during your visit to Italy next April.

With best regards, I remain,

Sincerely yours,

G.Natta

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

April 9, 1959

Professor G. Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of March 25, 1959 outlining your thinking on alpha olefins in the field that would be of interest to you. As you have mentioned, we have the skills required to carry out the research on these materials in the field of surface-active agents. Therefore, we are in agreement that you conclude the work on the preparation of bifunctional aromatic peroxides on July 1, 1959 and release the chemist who has been carrying out work on our research.

I am planning to be in Europe this summer and expect to have the opportunity to visit with you possibly in June. I am looking forward to seeing you and will let you know definitely in a few weeks when my plans are completed.

With best regards.

Yours very truly,

W H Shiffler

Il Professore che avrà piacere a
trattenersi a Milano.

WILLIAM H. SHIFFLER
200 BUSH STREET
SAN FRANCISCO 4, CALIFORNIA

September 17, 1959

Dear Rosita and Giulio:

I shall be in Milan with friends from September 24 to September 27 and will be staying at the Principe e Savoia. We may have to leave Milan Sunday morning, September 27, for Rome, or I may stay over in Milan for another day.

We have some dates with Snia Viscosa and Montecatini, but I hope we may have an opportunity for a short visit or dinner with you. I will phone you from the Principe e Savoia.

Looking forward to seeing you both, and with best personal regards,

Sincerely,

Bill

Prof. & Mrs. Giulio Natta
Via Mario Pagano 54
Milan, Italy

CALIFORNIA CHEMICAL COMPANY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

November 18, 1959

Dem.

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Prof. Natta:

Thank you for the report, "Progress in the Stereospecific Polymerization." We are glad to have this up-to-date review of your progress in this field.

This report will be very interesting to our laboratory people. If there are any questions, Dr. J. Q. Cope will write to you.

With best regards,

Very truly yours,

W H Shiffler

CALIFORNIA CHEMICAL COMPANY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

October 13, 1961

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Prof. Natta:

It was a pleasure to see you in Paris recently.

With regard to your question about 1,3-pentadiene, also called "piperylene," this product would be made as a by-product in the manufacture of isoprene from isopentane by the Houdry process. We believe no plants have been built for isoprene by this process, although it is used for making butadiene. It could also be made readily in the same process by feeding normal pentane.

With kind regards,

Very truly yours,

W H Shiffler
Vice President

4th May 1959

Dr. W.H. Shiffler
California Research Co.
200 Bush Str.
San Francisco 20
California U.S.A.

Dear Dr. Shiffler,

Thank you for your cable telling me about your visit to Milan on the 16th or the 17th July next.

The date you chose is all right and I am looking forward to meet you very soon.

With my best regards.

G. Natta

May 12, 1959

Dr. W.H.Shiffler
California Research Co.
200 Bush Street,
San Francisco 20,
California. U.S.A.

Dear Dr. Shiffler,

Thank you for your cable following our letter of May 4, 1959.

The date of your visit (June 16 and 17) is all right. My secretary quoted July instead of June, for a strange misunderstanding.

With my best regards,

G.Natta

April 20th 1959

W.H. Shiffler
California Research Co.
200 Bush St.
San Francisco 20
California U.S.A.

our. 462/pn

Dear Doctor Shiffler,

thank you very much for your kind letter of the 9th inst. I am looking forward to seeing you during your trip to Europe.

I wish to inform you that I foresee to be in Milan in June but during the period 4 - 16 July I shall probably be in England.

During our meeting I shall be very pleased to speak with you about the 4-methylpentene-1; its polymerisation has undergrowed important progresses. I would also like to know if your foreseeings about the cost of the monomer - you told me that for great productions it might be of 2 o 3 cents per lb. more than the cost of propylene - have been furtherly confirmed.

With my best regards,

G. Natta

Nov. 16, 1959

Dr. W. H. Shiffler,
California Research Co.
200 Bush Street,
San Francisco 20 - California

our ref. 1178/lv

Dear Dr. Shiffler,

Being encharged by Professor Natta, I send you, under separate cover, a copy of the lecture "Progress in the Stereospecific Polymerization" which Professor Natta presented at the Wiesbaden Symposium.

With my best regards,

R. Lamma
(the secretary)

September 23th 1959

Mr. William H. Shiffler
Hotel Principe di Savoia
P.za della Repubblica
M i l a n o

nur refs.1026/lv

Dear William,

I was very glad to learn, from your letter of Sept. 17, that you will be in Milan to-morrow.

Owing to the fact that also Rosita will be in Milan, we both expect you will be our guest at home for lunch on Thursday at 1 p.m.

I wish you could call me up as soon as you arrive.

Being very glad to meet you soon, I send you my kindest regards.

G.Natta

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET · SAN FRANCISCO 20 · CALIFORNIA

I. E. LEVINE
VICE-PRESIDENT

October 26, 1960

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Your letter to Mr. Shiffler of October 11, 1960, has been referred to me since he is on a trip and is not expected back for some time.

We do not know of any work on fibers in this country using isophthalic acid other than processes studied by us which were mentioned to you several years ago. We will try to clarify this point with Professor Mark and will be pleased to let you know if he is aware of any other processes using isophthalic acid for textiles in the U.S.A.

With best regards.

Yours very truly,

I. E. Levine

[illegible]

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET · SAN FRANCISCO 20 · CALIFORNIA

July 13, 1959

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy.

Dear Professor Natta:

A few weeks ago Mr. W. H. Shiffler visited with you in Milan and enjoyed the very interesting discussion on the fundamental work that you are pursuing on the structure of different type polymers. We are extremely interested in the continuation of work of this nature by qualified scientists and wish to provide support to your activities.

We have in mind a grant of $3,000 which we would make available to you for continuation of your fundamental research. It would be unrestricted except for use in the extension of scientific knowledge in your field of interest. There would be no attempt on our part to define the narrow field of research or share in any inventions which could result from the use of this grant as has been the case in other work we have supported at your institute.

Would you kindly let me know if you can use such a grant at this time, and if so, we will be most pleased to send you a check in this amount.

With best regards.

Yours very truly,

J. Q. COPE

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET · SAN FRANCISCO 20 · CALIFORNIA

J. Q. COPE
VICE-PRESIDENT

August 11, 1959

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of July 28, 1959, accepting our offer of an unrestricted grant of $3,000 for scientific research in your institution.

Accordingly, we are attaching a check in this amount and we are pleased to be able to assist you in this manner.

With best regards.

Yours very truly,

J. Q. Cope
JHP

Attachment: Check

l'assegno è nella cassaforte dell'Istituto;

Assegno ricevuto
con ringraziamenti
N.

CALIFORNIA RESEARCH CORPORATION
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
200 BUSH STREET • SAN FRANCISCO 20 • CALIFORNIA

W. H. SHIFFLER
VICE-PRESIDENT

March 18, 1959

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

In reference to your letter of February 19, 1959, attached is a copy of an article which appeared in the March 1959 issue of Industrial and Engineering Chemistry on "Chemicals from Hydrocarbons by Vapor Phase Oxidation." These studies include a wide variety of saturated hydrocarbons including some cyclic compounds. You will note from the acknowledgment at the end of the article that the work was sponsored by Esso Research and Engineering Company and is likely that to which you refer.

Your suggestion of oxidizing cyclopentane where only 2-ether structures are predicted is a good one from the standpoint of obtaining high yields of a fewer number of products. However, this is not of great interest to us because of the relatively small amount of cyclopentane available in reasonable purity from our refinery streams and the fact that the product ethers are attached to secondary carbon atoms of less stability than the primaries.

Although not yet commercialized, we can foresee the possibility of making available large amounts of high-purity straight-chain 1-olefins in the range of C_3-C_{20}. There have been several recent references to oxidation of olefins to epoxides by liquid phase air oxidation and we would like your thoughts on possible research in this field. We can supply you the 1-olefins for your research in any molecular weight range within the limits indicated (C_3-C_{20}).

In your letter of February 26, 1959, you mentioned your results during the first months on the oxidation of di-isopropylbenzene. Although this work is interesting and as you have mentioned, may possibly lead to cross-linking agents, we do not know that it would fit with the general pattern of our research. Also, the dihydroperoxide was made commercially by Hercules Powder Company.

In regard to the continuation of support, we wish to have your suggestions on research on the peroxidation of 1-olefins to determine if a program in this field can be developed which would warrant the services of one of your chemists through March 1960. In the meantime, we will provide support to your program through July 1, 1959.

We are attaching a check in the amount of $1,233 covering your invoice for research done during the period October 1-December 31, 1958.

With best regards,

Yours very truly,

Attach.-Article "Chemicals from Hydrocarbons from Vapor Phase Oxidation"
Check - $1,233

Ferr

31 May 1960

Prof.W.H.Shiffler
Vice-President
California Chemical Co.
200 Bush Street
San Francisco 20 - Californ
(USA)

Dear Dr. Shiffler,

Since I imagine that you have been interested in the production of acid by oxidation of xylene, I would very much appreciate receiving information concerning the possibility of receiving from U.S.A. meta-methyl benzoic acid, some friends of mine in Italy being interested in it.

In particular I would like to know whether this acid is commercially produced in the States, and at what price some tons of it could be bought now, and eventually, in a near future, an amount of 10-15 tons per month.

If cheaper, we would also be interested in a raw mixture of ortho and meta methyl benzoic acids, even if it is impure of para methyl benzoic acid. In this case, I would like to receive a few-pound sample of this commercial product as soon as possible, in order to examine whether it is possible to use it instead of meta methyl benzoic acid.

Please, excuse me for the trouble I give you and I send you my kindest regards.

G.Natta

Oct. 11, 1960

Dr. W. H. Shiffler, Vice President
California Chemical Co.
200 Bush Street,
San Francisco 20 (California)
U. S. A.

our ref. 938/lv

Dear Doctor Shiffler:

Professor Mark, in a lecture he held in Milan on Sept. 29, spoke of the use of isophtalic acid for the production of textiles in U. S. A. For them, he preconized lower costs than for fibers obtained from terephtalic acid.

I would most appreciate learning whether the processes for the production of such new fibers derive from the processes studied by the California Research Co., you mentioned to me some years ago, or whether they are other new processes.

Thanking you in advance, I send you my kindest regards.

Very truly yours,

G. Natta

Oct.19, 1961

Dr. W.H. Shiffler, Vice-President
California Chemical Company,
200 Bush Street,
San Francisco 20 , California

our ref.833/lv

Dear Doctor Shiffler:

Thank you very much for your kind letter of Oct.13, 1961, and for the prompt care with which you have answered all my questions about 1,3-pentadiene. Your information were highly appreciated.

I am glad to have met you in Paris, and I hope that an opportunity arises in the near future to meet you again.

With kind regards,

Sincerely yours,

G.Natta

November 3, 1960

Dr.I.E.Levine, Vice President
California Research Co.
200 Bush Street
San Francisco 20, California
(U.S.A.)

our ref.969/eg

Dear Dr.Levine,

I wish to thank you for your letter of October 26, and for the promptness with which you have given me the information concerning the process using isophthalic acid for textiles in the U.S.A.

I shall very much appreciate learning any other information on this matter at your convenience.

With best regards,

Sincerely yours

G.Natta

8 July 1959

J.Q. Cope
California Research Corporatio
200 Bush Street
San Francisco 20 - California
U.S.A.

our reference 845/eg

Dear Mr. Cope,

I acknowledge receipt of your kind letter of July 13 and I thank you for your communications concerning your offering us an unrestricted grant of $ 3,000 for the scientific researches we are accomplishing in this Institute.

This grant will be utilised from the beginning of the next academic year; it is therefore enough for us to receive the above-mentioned amount in September 1959.

I hope you will forward my sincerest thanks also to Mr. Shiffler.

With my best regards,

G.Natta

August 27, 1959

J.Q.Cope, Vice President
California Research Corporat
200, Bush Street,
San Francisco 20 -California

our ref.935/lv

Dear Mr. Cope,

I acknowledge receipt of your letter of August 11, 1959 and of the attached check of $ 3,000.

Thanking you for the prompt care you took in sending me that amount, I send you my kindest regards.

G.Natta

March 25th 1959

Dr. W.H. SHIFFLER
California Research Corp.
200, Bush Street
SAN FRANCISCO, 20
California U.S.A.

rif. 390/pn

Dear Dr. Shiffler,

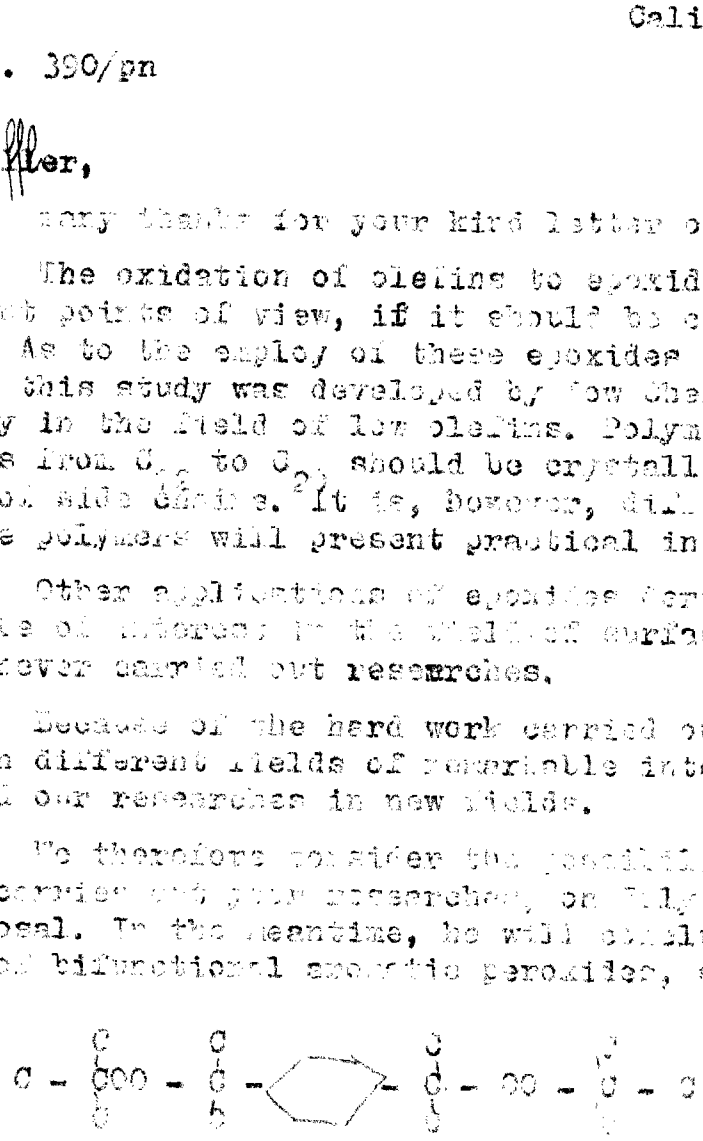
Many thanks for your kind letter of March 18th, 1959.

The oxidation of olefins to epoxides may be of interest from different points of view, if it should be carried out with very high yields. As to the employ of these epoxides for the production of polymers, this study was developed by Dow Chemical Company, but, I think, only in the field of low olefins. Polymers from epoxides having chains from C_{16} to C_{20} should be crystalline owing to the association of side chains. It is, however, difficult to foresee whether these polymers will present practical interest.

Other applications of epoxides deriving from C_{16}-C_{20} olefins may be of interest in the field of surface-active agents, on which we never carried out researches.

Because of the hard work carried out at present in our Institute, in different fields of reversible interest, we are inclined not to extend our researches in new fields.

We therefore consider the possibility to discharge the chemist who carries out your researches, on July 1st, 1959, according to your proposal. In the meantime, he will conclude the work on the preparation of bifunctional aromatic peroxides, such as:



which we thought to be interesting curing agents, different from the ones produced by Hercules as they are less volatile and give a greater number of free radicals, for the same weight.

Waiting for your kind reply, I remain,

Sincerely yours

(prof. G. Natta)

February 26, 1959

Mr.H.W.SHIFFLER - Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Rif.N.280/rl

Dear Mr.Shiffler,

as I already told you in my letter of October 24, 1958, after the conclusion of the work on the crystallinity of your polyamide, new researches in order to prepare and characterize the peroxides obtained from your di-isopropylbenzene, have been carried out in our Institute.

During the first months, the preparation of the hydroperoxides by oxidation of di-isopropylbenzene was carried out. Some orientative runs showed us that it is possible to carry out the hydrocarbon peroxidation with yields up to 60% (expressed as monohydroperoxides). The obtained hydroperoxides were separated, and, under our working conditions, we obtained from 100 g of diisopropylbenzene :

13.4 g of para-monohydroperoxide (crystallizable)
about 8 g of meta-monohydroperoxide (difficult to crystallize)
2.1 g of para-dihydroperoxide (crystallizable)
about 3 g of meta-dihydroperoxide (difficult do crystallize)

The ortho-diisopropylbenzene is not easily peroxidized and, therefore, the separation of the correspondent hydroperoxides was not performed.

Next step of our researches is to condense these hydroperoxides with a tertiary alcohol, in order to obtain the correspondent peroxides. Some condensations were already carried out using trimethylcarbinol.

I wish to remind you that on March 1, 1959, it is a year that the chemist, who carried out the researches on your account, has been engaged. I would like to know if you intend to confirm him till March 1960.

I am sending you our invoice for the period October-December 1958.

With best regards and wishes.

Sincerely yours,

G.Natta

Encl/

February 26, 1959

California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Invoice for the researches carried out for CaliforniaResearch Copporation - October 1 - December 31, 1958

Supplies, equipment	Lit.	185.000	$	288
Graduate chemist and assistant	"	355.000	"	555
Overhead expenses (70% of chemist's rewards)	"	249.000	"	390
	Lit.	789.000	$	1.233

February 19, 1959

Mr. W.H. Shiffler
California Research Corp.
200 Bush Street
San Francisco 4
California, U.S.A.

236

~~201~~/mb

Dear Mr. Shiffler,

After we last met Mr. Edeleanu in Milan, we were able to obtain appreciable improvements in the polymerisation of 4-methylpentene-1, either in the production of polymer, in respect of the amount of the employed catalyst, or of the isotactic polymers content in the raw polymerisation product.

A factor of the utmost importance is represented by the purity of the monomer, which we were obliged to further purify in order to get high yields.

A foreseeable application of these polymers in the field of textiles, must face some difficulties due to their very high molecular weight. We have begun few attempts to regulate the molecular weight, but, nowadays, we do not have sufficient results from which a definitive conclusion could raise.

We would like moreover, to perform further tests on the 4-methylpentene-1 in some copolymerisations.

I should, therefore, greatly appreciate if you could let us have other samples of 4-methylpentene-1, as pure as possible?

We did not find in literature the critical temperature, the critical pressure and the vapor pressure (for temperatures comprised between the room temperature and 100°C) of 4-methyl-pentene-1. I should be most grateful for any information you would be so kind to give me on the subject.

Yours sincerely,

(Prof. G.Natta)

Ann.

February 19, 1959

Mr. W.H.Shiffler
California Research Corp.,
200 Bush Street
San Francisco 4,
California, U.S.A.

237/mb

Dear Mr. Shiffler,

I heard that the Esso Research & Engineering Co. of Linden, N.J. has obtained interesting results on the production of epoxides and of dimethyltetrahydrofuran by direct oxidation of hexane.

Do you know whether similar studies were performed also on cyclopentene oxidation? Do you believe that a study on the production of methyltetrahydrofuran or of epoxides from cyclopentane might raise some interest for you?

I whould be most grateful for any information you may give me.

Yours sincerely,

(Prof.G. Natta)

October 24, 1958

Mr. W.H. Shiffler
Vice President
California Research Corporation
200 Bush Street
SAN FRANCISCO 20 - California

Ref. No. 1095/rl

Dear Mr. Shiffler,

I am sending you a report on the researches carried out for your Company during last months.

Researches carried out on MXDA-adipic acid polymer

As you know, since last year we started a study on the crystallization kinetics of your polymer. Although I had the impression that this work is not of great interest to your Company, neverthless I wished to conclu it.

I shall briefly summarise here the more interesting results we obtaine on the enclosed report will find all the details:

- The course of the crystallization rate in function of the crystallization temperature is similar to that found by other researchers for other polymers;
- the crystallization rate is practically null at temperature below 80°C reaches a maximum at temperatures between 165-165°C and decreases successively to a null value at about 230°C;
- in the range of 230-246°C (melting point) the polymer remains undercooled and does not crystallize;
- the difference between the density of the crystallized polymer and tha of the amorphous one is quite limited (density of the amorphous polyme 1.193 g/cm^3 ; density of the crystalline 1 about 1.216 g/cm^3);
- the polymer exposed to moist air absorbs humidity, and consequently, its density increases;
- in a table reported at the end of the enclosed report, you will find, as a summary, the different types of crystallizations that the polymer undergoes, according to the different crystallization temperatures.

These researches required more time than the foreseen, because the cry stallinity degree was determined by density measurements, that are more precise than the X-Rays determinations.

./.

October 15, 1958

Ref.No.1095/rl

Sheet No.2

These density measurements required also more time thantthe foreseen, particularly due to the necessity of conditioning each sample. Because of the slow deabsorption of moisture, we must dry each sample for long times, to obtain reproducible results.

I think that our work on MXDA-adipic acid polymer may be concluded with the present report.

New research work

At present the chemist rewarded by your Company, is carrying out at our Institute, under our supervision, a research on the preparation from diisopropylbenzene of polyfunctional peroxides, having low vapor pressure Such products may be foreseen to have particular application as substituents of cumyl peroxide. The dicumyl monoperoxides substituted in para-position (Italian Patent No.559008 by Hercules Powder Co. filed on 27.4. 1956, granted 13.3.1957, Usa priority 24.5.1955) are described in literature, but the products substituted in other positions or those containing more than one peroxidic group in the same molecule seem not to have been studied.

As this study will require high amounts of raw materials, I should be grateful if you can send us, as soon as possible, a 10-Kg further sample of diisopropylbenzenes.

I send you also our invoice for the last 9 months (from January 1, 1958 till September 30, 1958).

With kindest regards and best wishes, I remain,

Sincerely yours,

G.Natta

Encl/

October 15, 1958

California Research Corporatio
200 Bush Street
SAN FRANCISCO 20 - California

Invoice for the researches carried out for California Research Corporation on January 1, 1958 - September 30, 1958

Supplies, equipment, mechanical workshop.	Lit.	286.000	$ 460
Graduate chemists and assistants	"	1.050.000	" 1.685
Overhead expenses (70% of chemist's reward).	"	735.000	" 1.180
	Lit.	2.070.000	$ 3.325

July 15, 1959

Professor Frederick D.Rossini
Chemical and Petroleum Resear
Laboratory
Carnegie Institute of Technol
Pittsburgh 13, Pennsylvania.

our ref. 835/lv

Dear Professor Rossini,

thank you very much for your announcement of June 1, 1959, concerning your sending some loose-leaf data sheets of the American Petroleum Institute Research Project 44 without charge.

I have received loose-leaf data sheets belonging to the following categories:

- Selected values of properties of chemical compounds
- Raman Spectral Data
- Mass " "
- I.R. " "
- Ultraviolet Spectral Data

I most appreciate the above-mentioned data sheets, being very useful to us, and I truly wish to continue to receive them.

Please, send the data sheets to:

Professor Giulio Natta, Direttore
Istituto di Chimica Industriale del Politecnico,
Piazza Leonardo da Vinci 32,
Milano (Italy)

With my sincere thanks and best regards,

G.Natta

Ing Ulanti

CARNEGIE INSTITUTE OF TECHNOLOGY
SCHENLEY PARK
PITTSBURGH 13, PENNSYLVANIA

CHEMICAL AND PETROLEUM
RESEARCH LABORATORY

June 1, 1959

835

Istituto di Chimica Industriale del Politecnico
Attn: Prof. G. Natta
Piazza Leonardo da Vinci 32
Milano, Italy

Gentlemen:

The American Petroleum Institute has been sending to you without charge, from the API Samples and Data Office in the Chemical and Petroleum Research Laboratory at the Carnegie Institute of Technology, certain loose-leaf data sheets of the American Petroleum Institute Research Project 44 containing data on the physical, thermodynamic, and spectral properties of hydrocarbons and related compounds. We are glad to make these data available as long as there is need for them and as long as they are maintained properly filed so as to be readily available for inspection and use by the members of your organization. Because the maintenance of this free service represents an appreciable expenditure on the part of the American Petroleum Institute and considerable man-hours of work in our Chemical and Petroleum Research Laboratory, we desire to keep on the gratis list only those who really want and need the data.

Accordingly, this announcement will serve as notice that, if your organization wishes to continue to receive the loose-leaf data sheets of the American Petroleum Institute Research Project 44 without charge, the responsible officer should write a letter so stating to

Professor Frederick D. Rossini
Chemical and Petroleum Research Laboratory
Carnegie Institute of Technology
Pittsburgh 13, Pennsylvania.

This letter should (1) state what categories of loose-leaf data sheets have been received, (2) affirm the fact that your organization wishes to continue to receive these data sheets, and (3) give the correct address to which the data sheets should be sent. It is important to note that no more data sheets will be sent to your organization unless a letter is received by us requesting your continuation. All gratis recipients from whom no letter is received will be automatically removed from the distribution list.

Very truly yours,

Frederick D. Rossini
Silliman Professor and Head, Department of Chemistry
Director, Chemical and Petroleum Research Laboratory

DEBELL & RICHARDSON, INC.

HAZARDVILLE
CONNECTICUT

August 11, 1959

Professor G. Natta
Industrial Chemistry Institute
Milan, ITALY

Dear Professor Natta:

We read with interest your published remarks on the new rubber which you have devised from ethylene and propylene and understand from discussions with our mutual friend, Professor Hopff, at Zurich that trials of this rubber are now well under way. Would it be possible for us to obtain from you about 2 kg of the base material, for laboratory examination; and such recommendations for its compounding and vulcanization as you are publishing at this time?

We remember with pleasure the cordialities extended a few years ago at your laboratory when a visit was arranged by Dr. Giustiniani of Montecatini; and hope that on some of your many scientific visits to the United States you may be able to devote a little time to our laboratory and our more prosaic problems of turning inventions such as yours into actively profitable industrial use.

Sincerely yours,

John M. DeBell

JMD:mws

Am.

DEWEY AND ALMY OVERSEAS COMPANY

DIVISION OF W. R. GRACE & CO.

FACTORIES AND SALES OFFICES
NAPLES, BUENOS AIRES, MELBOURNE, SAO PAULO, COPENHAGEN, MONTEVIDEO, LONDON, PASSIRANA, PARIS, WELLINGTON, EPERNON (EURE-&-LOIR), ZURICH, HAMBURG, ROTTERDAM, JOHANNESBURG

CAMBRIDGE 40, MASSACHUSETTS
September 16, 1959

CABLE ADDRESS
DAREX BOSTON

Director
School of Chemical Engineering
Milan Polytechnic
Milan, Italy

Dear Sir:

Vittorio Vigo has worked under my supervision as a summer employee of the Dewey and Almy Overseas Division of W. R. Grace & Co. from July - September, 1959. During this time he was assigned the following problems:

(1) Preparation of drawings showing locations of buildings for future expansion in nine Overseas factories.

(2) Write-up of description and operating instructions for the Spirometer. This is a new control instrument designed to measure effectiveness of CO_2 absorbents used in anesthesia.

(3) Design of small plant for manufacture of meteorological balloons, including calculation of equipment sizes and capacities, labor requirements, utility requirements, and layout of equipment.

(4) Layout of small engineering office.

(5) Study of operation of pilot polymerization plant for butadiene-styrene, polyvinyl acetate, and similar polymers and copolymers, including assisting in the operation of the equipment.

He successfully completed each of the above assignments to my full satisfaction. In my judgment, Vittorio has shown an excellent ability to grasp new concepts quickly and has been very industrious in his work.

Very truly yours,
PMRinaldo
P. M. Rinaldo
Chief Manufacturing Engineer

PMR/gmb

cc: R. M. Coquillette
G. F. Bianchi, Passirana
Josef Wischeidt, Jr., IAESTE

n. laureato a dicembre 1959

Pentire Parpen
si è ws. allievo
n.

Dr. Merch
Kennd 25

ARTHUR K. DOOLITTLE

CONSULTING CHEMICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER

11 WEST MACCORKLE AVENUE
CHARLESTON 3, W. VA.

99 PARK AVENUE
NEW YORK 17, N. Y.

Prof. Guilio Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Prof. Natta:

This will introduce to you Mr. Donald Fiedler of the Avi-Sun Corp., Philadelphia, who will be in Europe next week. Mr. Fiedler will be staying at the Palace Hotel in Milan Monday thru Thursday, and while in Milan, will try to contact you.

I have told Mr. Fiedler of the pleasant time we had in New Hampshire when you and Mrs. Natta attended a Gordon Research Conference on High Polymers, and how your wife stunned everybody with her teriffic energy and enthusiasm. I have suggested that if he could get the two of you together he could look forward to a most fascinating conversation.

Anything you can do to make Mr. Fiedler's visit enjoyable will be most appreciated by me.

With kind regards to both you and Mrs. Natta.

Sincerely,
Art Doolittle.
Arthur K. Doolittle

DUN'S REVIEW
and Modern Industry
A Dun & Bradstreet Publication

99 CHURCH STREET NEW YORK 8, N.Y. DIgby 9-3300

May 6, 1959

Dr. Guilio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

Recently you completed a questionnaire for me on the future effects of recent scientific advances. The article based on these questionnaires appears on pages 56 through 58 of the enclosed issue of DUN'S REVIEW AND MODERN INDUSTRY.

If you have any comments to make on the article, I would appreciate hearing from you. I hope that we can call on you again in the future to aid us in interpreting scientific advances to the nation's business community.

~ 10

If you would like to have some additional copies of this article, please do not hesitate to ask for some.

Respectfully,

Melvin Mandell

Melvin Mandell
Industrial Editor

MM:dm
encl.

Ringraziamo e diretta alla [illegible]

February 26, 1959

Prof.Frederick D.Rossini
Director, Chemical and Petroleum
Research Laboratory
Carnegie Institute of Technology
PITTSBURGH 13 - Pennsylvania
(USA)

/rl

Dear Professor Rossini,

I wish to thank you very much for your kind sending us ultraviolet and mass spectral data for, the period 1.1.58 to 6.30.58.

With kindest regards, I remain,

Sincerely yours,

(Prof.G.Natta)

February 18, 1959

Mr. Friedmann
Chemical Rubber Co.,
Cleveland, Ohio
U.S.A.

Dear Mr. Friedmann,

Prof. Natta was very sorry not to have been able to meet you today.

He charges me with sending you his right address :

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico di Milano
Piazzale Leonardo da Vinci 32
Milan, Italy

as you required by telephone.

Best regards,

Yours very truly

(secretariat to Prof.Natta

Ans.

September 4, 1959

John M. DeBell
DeBell & Richardson Inc.
Hazardville Connecticut
U.S.A.

our refs.971/eg

Dear Mr. DeBell,

I am sorry to inform you that at the Polytechnic we have not the amount of copolymer you require in your letter of August 11.

I forwarded your letter to the "Direzione Seid-Soc.Montecatini, via Turati 18, Milano", which produces copolymers at the Ferrara pilot plant.

However, I do not know whether Montecatini will agree to distribute samples to strangers at present, owing to the fact that they are studying perfecting processes of the very copolymers.

With best regards.

G.Natta

June 18, 1959

Arthur K. Doolittle, Esq.
Consulting Chemical Engine
99, Park Avenue
New York 17, N.Y.

our ref. 723/ lv

Dear Mr. Doolittle,

I was very glad to hear news from your letter which brought to my memory the period spent in New Hampshire, when attending the Gordon Research Conference.

Your letter arrived here after the arrival of Mr.Fiedler. I was extremely sorry not having been able to meet him. As a matter of fact, I was very busy in those days. On the other hand, having heard, by a short telephone call I had with Mr. Fiedler, that he would have liked to talk on the polypropylene field -whose development researches are carried out by Montecatini- my talk with him should not have dealt with the topics he was interested in.

With my best regards,

G.Natta

May 19, 1959

Dun's Review

Melvin Mandell Esq.
Industrial Editor,
99 Church Street,
New York 8, N.Y.

our ref. 591/lv

Dear Sir,

thank you very much for your letter of May 6, 1959 and for the issue of Dun's Review and Modern Industry you sent me.

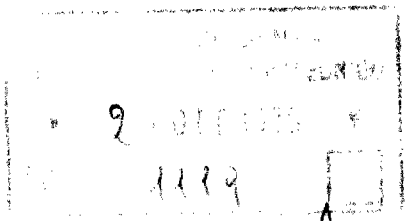
I would most appreciate if you could send me, if possible, 10 copies more of the same article I am much interested in.

Many thanks and best regards,

G.Natta

17 OCTOBER 1959

HÔTEL MEURICE
228, Rue de Rivoli
PARIS
MEURISOTEL-PARIS
OPÉRA 32-40



Ethyl Corp.

PROFESSOR G. NATTA, DIRECTOR
ISTITUTO DI CHIMICA INDUSTRIALE DEL POLITECNICO
MILAN, ITALY

DEAR PROF. NATTA:

BEFORE LEAVING THE UNITED STATES, I WROTE TO YOU REQUESTING AN APPOINTMENT IN MILAN FOR DISCUSSION OF RESEARCH OF MUTUAL INTEREST, INCLUDING ORGANOMETALLIC CHEMISTRY.

I REGRET THAT, BECAUSE OF TRANSPORTATION DELAYS AND OTHER DIFFICULTIES, I WILL NOT BE IN MILAN TUESDAY AND WEDNESDAY, OCTOBER 20 AND 21, AND I WILL NOT HAVE THE OPPORTUNITY TO VISIT YOUR INSTITUTE AT THAT TIME.

I HOPE THAT MY CHANGE IN PLANS HAS NOT CAUSED YOU A GREAT INCONVENIENCE. I HOPE TO BE ABLE TO SEE YOU AT SOME OTHER TIME IN MILAN. I ALSO EXTEND TO YOU A CORDIAL INVITATION TO VISIT OUR LABORATORIES IN DETROIT, MICHIGAN, AND BATON ROUGE, LOUISIANNA, WHEN YOU ARE IN THE UNITED STATES.

SINCERELY YOURS,

W. B. Ligett
DIRECTOR, CHEMICAL RESEARCH
ETHYL CORPORATION, U.S.A.

Oct. 13, 1959

Dr. W.B. Ligett,
c/o Westbury Hotel,
London

Principe e Savoia Hotel
Piazza della Repubblica
Milano

our ref. 1099/lv

Dear Dr. Ligett,

I got your letter of October 7, which reached us during the absence of Professor Natta who is abroad to attend the IUPAC Congress held in Wiesbaden.

As Professor Natta took many other engagements in Germany, I do not know whether he will be in Milan on the 20th of October when, according to your schedule, you should arrive here. For certain, I know that he will be back at the beginning of the second week of November. Therefore, to be sure to meet Professor Natta personally, you should postpone your visit.

In any case, owing to the fact that I personally work in the field of metal carbonyls and related compounds, in which you are interested too, I should be very glad to welcome you, to talk with you, and show you our Institute in any time you like.

I wish to thank you sincerely for the interesting papers you sent us.

With my best regards.

(Prof. R. Ercoli)

ETHYL CORPORATION
RESEARCH AND DEVELOPMENT DEPARTMENT
RESEARCH LABORATORIES · 1600 WEST EIGHT MILE ROAD
FERNDALE 20, DETROIT, MICHIGAN

Ann.

October 7, 1959

Prof. G. Natta, Director
Istituto di Chimica Industriale
del Politecnico
Milan, Italy

Dear Prof. Natta:

I am leaving for Europe today and I would like very much to visit your Institute to become acquainted with you and to learn more of the work of your Institute.

I expect to be in Milan Tuesday, October 20, and would like to see you the afternoon of that day if this would be convenient to you. It is possible I may have some time in Milan on Wednesday, October 21, but I am not certain.

Would you please write me in care of the Westbury Hotel, London, where I will be until the morning of October 16, whether you could see me at the suggested time. In the event this letter does not reach you in time to reply to me at the Westbury, perhaps you could leave a message for me at the Principe de Savoia in Milan.

I enclose several reprints of the work of our laboratory.

Dal Prof. Ricoli

I look forward to hearing from you.

Very truly yours,

W. B. Ligett

W. B. Ligett
Director
Chemical Research

WBL/jtd

ETHYL CORPORATION

RESEARCH AND ENGINEERING DEPARTMENT

Fun.

January 2, 1959

PLEASE ADDRESS REPLY
TO: P. O. BOX 341
BATON ROUGE 1, LA.

14

AIR MAIL

Professor G. Natta
Instituto Di Chimica Industriala
Del Politecnico
Piazza Leonardo Da Vinci, 32, Milano, Italy

Dear Professor Natta:

Thank you very kindly for your letter of December 22. I appreciate very much the copies of your papers you are sending me, and I am, of course, aware of your fine work in this field.

The Russian paper you referred to which is pertinent to our Communication was called to our attention by the Journal of the Americal Chemical Society, and we intend to acknowledge this work in our future papers. I am enclosing a copy of our Communication, and I will be delighted to send you reprints of future papers pertinent to this work.

Let me thank you once again for your very kind letter. Best wishes for the New Year.

Yours very truly,

H. E. Podall

H. E. Podall
Chemical Research and Development

HEP/lmg
Enclosure

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET · NEW YORK 36, N.Y.
MURRAY HILL 7-8220

DR. NORMAN G. GAYLORD
VICE PRESIDENT
RESEARCH AND DEVELOPMENT
POLYMER DIVISION

August 31, 1959

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milan, Italy

Dear Professor Natta:

I have just finished making the final arrangements for the European lecture tour that I will be undertaking next month. As agreed in our previous communications, I will visit the Institute on Friday, October 23, 1959, and will give a talk on "Stereoregulated Polymerization of Dienes and Polar Monomers." I will also, of course, be very pleased to discuss any other subject in which I am competent in the field of polymer chemistry, which may arise during the course of our discussions. The only facilities I will need are for the projection of standard 3¼" x 4" slides.

My wife and I will be staying at the Hotel Diana Majestic in Milan on the nights of October 22 and 23. I will plan on being at the Institute at 10:00 A.M. on Friday, October 23, 1959.

Please advise me if these arrangements are not satisfactory. I am looking forward with great pleasure to meeting you and your colleagues.

Very truly yours,

Rispondere da Norman Gaylord
Va bene.

NGG:mb

INTERCHEMICAL CORPORATION
THE RESEARCH LABORATORIES
FOUR THIRTY-TWO WEST FORTY-FIFTH STREET—NEW YORK 36, NEW YORK

March 9, 1959

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milan, Italy

Dear Professor Natta:

Thank you for your prompt reply to my letter suggesting Friday, October 23, 1959 for my visit to the Institute. I am pleased that the various subjects that I suggested are all of interest to you. I am looking forward to hearing further from you, as you suggest in your letter, in regard to the final arrangements on the date and the subject.

I was quite happy to make the changes that you suggested via Mr. Ottolenghi. Thank you again for all the trouble you have taken in regard to our book.

I am looking forward to hearing from you again with reference to the final arrangements for my visit.

Respectfully yours,

INTERCHEMICAL CORPORATION

Norman G. Gaylord

NGG:GB

Norman G. Gaylord
Assistant Director
Organic Chemistry Department

INTERCHEMICAL CORPORATION

THE RESEARCH LABORATORIES

FOUR THIRTY-TWO WEST FORTY-FIFTH STREET—NEW YORK 36, NEW YORK

February 5, 1959

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milan, Italy

Dear Professor Natta:

Thank you for your kind invitation to visit the Politecnico di Milano. I would be happy to give a seminar or a lecture if such could be arranged. Unfortunately, the talk would have to be in English, since I have no speaking knowledge of Italian. I am presently in the throes of setting up the actual dates for my itinerary. Would Friday, October 23, 1959 be suitable for my visit?

Although I am prepared to give a talk on stereoregulated polymers, specifically butadiene polymerization, as indicated in Dr. Mark's communication to you, if you have other subjects which you would prefer, and which I am competent to handle, I would be happy tosspeak on the latter. Among these other subjects are "Allylic Polymerization" and "Block and Graft Copolymers". At any rate, regardless of the subject of the formal talk these and other subjects of mutual interest will undoubtedly come up during the rest of the discussions.

I would appreciate hearing from you in regard to the suggested date and shall contact you further as the time for my trip approaches.

I would like to personally thank you for the great amount of trouble which you have gone to in reading and correcting the galley proofs of the monograph which Dr. Mark and myself have authored. Although I was unable to include some of the recommended changes due to having already released the final manuscript to the printers, I have managed to put a number of them in the appendix to the volume. I have also taken the liberty of including in the appendix, material taken from your paper presented by Dr. Mark in New York last week.

Respectfully yours,
INTERCHEMICAL CORPORATION

Norman G. Gaylord
Assistant Director
Organic Chemistry Department

NGG:rgk

RESEARCH LABORATORIES

GENERAL MOTORS CORPORATION

December 11, 1959

6

1270

Professor G. Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

We are interested in evaluating stereospecific polystyrene in one of our automotive development programs. If available, we would appreciate a generous sample of this polymer for our studies. The molecular weight and degree of crystallization would be most helpful.

Thank you.

Very truly yours,

P. Weiss

P. Weiss, Head
Polymers Department

PW:jmr

GENERAL MOTORS TECHNICAL CENTER
12 MILE AND MOUND ROADS WARREN, MICHIGAN

949

RESEARCH LABORATORIES

GENERAL MOTORS CORPORATION

August 25, 1959

Professor Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I wish to thank you for inviting me to the University of Milan. I plan to arrive in your office on October 5 at 10:30 A.M. and would be pleased to give a short lecture on "Graft Copolymers."

Should you desire to contact me prior to my visit to your laboratories, please write me at the Hotel Francia Europe ("Hold for Arrival") in Milan.

I am looking forward to my visit with you and your colleagues.

Very truly yours,

P. Weiss

P. Weiss, Head
Polymers Department

PW:jmc

HUMBLE OIL & REFINING COMPANY
MANUFACTURING DEPARTMENT
POST OFFICE BOX 3950
BAYTOWN, TEXAS

RESEARCH AND DEVELOPMENT DIVISION
W. D. SEYFRIED, MANAGER

March 9, 1959

Ans.

Professor G. Natta, Director
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Sir:

Copies from the first printing of the Humble Catalog of NMR Spectra have been exhausted. We shall be happy to send you a copy when the second printing has been completed, which should be within a month or so. We regret this delay, but there were more requests than we had anticipated.

(N. 273)

Very truly yours,

W. D. Seyfried

By N. F. Chamberlain
N. F. Chamberlain

JAD:NFC:ee

Prudenza

December 22, 1958

H.E. Podall
Research and Development I
Ethyl Corp.,
Baton Rouge, Louisiane

1371/mb

Dear Mr. Podall,

I read with a great interest your appreciated communication entitled "A novel synthesis of metal carbonyls using triethylaluminum"as the reducing agent" J.Am.Chem.Soc.80, 5573 (1958)

Since during the last years also one of our working team have performed researches in the same field, I should greatly appreciate having, if available, a reprint of the above mentioned communication and, eventually preprints or reprints of other paper of yours on that subject.

Under separate cover, I have sent you reprints of the following papers :

G. Natta, R. Ercoli, F. Calderazzo, A. Fabizzoni : "A new synthesi of the chromium hexacarbonyl", J. Am. Chem.Soc.79, 3611 (1957)
G. Natta, R.Ercoli, F. Calderazzo : "Synthesis of arene-chromium triearbonyls" - Chimica e Industria, 40, 287 (1958)

I feel that you would be interested in the following papers published by some Russian authors : "Action of triethylaluminum and diisobutylaluminum hydride on chlorides of metal of the group VI, in the presence of carbon monoxide. Synthesis of chromium, molybdenum and tungsten carbonyls."
L.I. Zakharin, V.V. Garzilenko and O. Yu. Okhlobystin Gavrilenko
Izvest Akad. Nauk. S.S.S.R., Otdel Khim.Nauk. 100-102 (1958)
See also : Current chemicals papers 1958 (N° 5) pag. 293.
The yields of these authors are of the 50-65%.

With best regards,

Yours very truly,
(Prof.G.Natta)

Oct.19, 1959

Professor N.H. Gaylord,
Hotel Diana Majestic
Viale Piave 42
Milano

our ref.1116/lv

Dear Professor Gaylord,

As you probably know, Professor Natta will not be in Milan to wel= come you on Friday, Oct.23.

The Polytechnic Institute fixed your lecture on Friday at 5.30 p.m.; we hope that the time suits you: if not, please, let us know as soon as possible.

Anyway, we shall wait for you on Friday at 10;00 a.m. for your visit to our Institute.

With our kindest regards,

Sincerely yours,

the Secretariat

Sept. 4, 1959

Dr. Norman G. Gaylord
The Western Petrochemical C
Two West 45th Street,
New York 36, N.Y.

our ref. 968/lv

Dear Doctor Gaylord,

thank you for your letter of Aug. 31, concerning your visit to my Institute and your talk on "Stereoregular Polymerization of Dienes and Polar Monomers".

I think that your plans to come to the Institute on October 23 at 10:00 A.M. are completely satisfactory.

Being glad to meet you next October I send you my best regards.

G. Natta

February 18,1959

Mr. Norman G. Gaylord
Assistant Director
Organic Chem.Dept.,
Interchemical Corp.
432, West, 55street
New York 35, N.Y.
U.S.A.

174/mb

Dear Mr. Gaylord,

Thank you for your letter of the 5th inst. concerning the seminar you may deliver in Milan, during your next visit.

Each of the subjects you indicated seems to me full of interest for a lecture to be given here. Hence, please select yourself which one you think most suitable. Anyway, I will come back to this matter somewhat before next October, in order to drop you a line confirming whether the date you set up would be suitable, as I do believe, for giving the scheduled lecture.

Mr. Ottolenghi informed me that he released to you the galley proofs of your book, which I regret I could not have sent earlier. Therewith, I sent also the manuscript of the forward. Should you find it advisable to make some changes, in order to better illustrate the work, please inform me at once and I will be glad to modify the text, according to your suggestions.

I am quite sure your book will get a successfully issue and I wish to congratulate you for the very fine work done.

Yours sincerely,

G. Natta

Dec. 17, 1959

Dr.P.Weiss, Head
Polymers Dept.
Research Laboratories
General Motors Co.
12 Mile and Mound Roads,
Warren, Michigan

our ref.1270/lv

Dear Dr.Weiss,

I am sorry I have not samples of polystyrene at my disposal now, as the products have been all used up in the trials for the study of the polystyrene properties.

If available,during the next months, I shall care to send you them without delay.

With my kind regards,

G.Natta

2nd Oct.1959

Dr.P.Weiss,
c/o Hotel Francia Europa
Corso Vittorio Emanuele 9
Milano

our ref.949/lv

Dear Dr.Weiss,

with regard to your visit to my Institute, I confirm you that we wait for you on October 5,at 10:30 A.M.

If it suits you, you may give your lecture on "Craft Copolymers" at 11 A.M.

With my best regards.

G.Natta

Ow.

July 6, 1959

Dr. Philip Weiss, Head of the
Polymer Dept. of General Motor
General Motors Corporation,
Research Center,
Box 188, North End Station,
Detroit 2, Michigan.

r ref. 808/lv

Dear Dr. Weiss,

Professor Natta received Prof. Mark's letter concerning your coming to Milan next October, at the very moment of his leaving Italy to London.

Therefore Prof. Natta charged me to tell you that he will be very pleased to welcome you and will appreciate the short lecture you may eventually give at our Polytechnic on the 5th of October on the suggested subjects.

Professor Natta will personally write to you on the matter.

With best regards and wishes,

the Secretary

February 25, 1959

Rif.N.273/rl

Humble Oil and Refining Company
Research and Development Division
(attention of N.F.Chamberlain)
B A Y T O W N - Texas - U.S.A.

Dear Sirs,

With reference to your announcement regarding nuclear magnetic resonance spectral data, I wish to inform you that we are very interested in obtaining your set of these spectral data on 360 compounds.

Thanking you in advance, I am,

Truly yours,

(Prof.G.Natta - Director)

AMERICAN PETROLEUM INSTITUTE RESEARCH PROJECT 44
AMERICAN PETROLEUM INSTITUTE SAMPLES AND DATA OFFICE
CHEMICAL AND PETROLEUM RESEARCH LABORATORY
CARNEGIE INSTITUTE OF TECHNOLOGY PITTSBURGH 13, PENNSYLVANIA

SPECIAL ANNOUNCEMENT
REGARDING NUCLEAR MAGNETIC RESONANCE SPECTRAL DATA

N 273 25/2

Recipients of spectral data of the American Petroleum Institute Research Project 44 are hereby informed that they may obtain, without charge, a set of nuclear magnetic resonance spectral data on 360 compounds from the Humble Oil and Refining Company.

Because the supply is limited, it is suggested that only one request be submitted by each laboratory interested in these data. If a large number of requests come in, it will be necessary to reprint, which will result in considerable delay. Requests should be addressed as follows:

Humble Oil and Refining Company,
Research and Development Division,
Attention of N. F. Chamberlain,
Baytown, Texas.

The plans of the Advisory Committee for the American Petroleum Institute Research Project 44 for beginning a new Catalog of Nuclear Magnetic Resonance Spectral Data are nearing completion. The new catalog will be handled in the same way as the present catalogs of infrared, ultraviolet, Raman, and mass spectral data of the API Research Project 44.

Frederick D. Rossini
Silliman Professor and Head, Department of Chemistry
Director, Chemical and Petroleum Research Laboratory

July 1, 1958
Carnegie Institute of Technology
Pittsburgh 13, Pennsylvania

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

December 29, 1959

Professor G. Natta
Instituto di Chimica Industriale
del Politecnio
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your good wishes expressed in your letter of December 18.

I have shown your letter to Dr. Proskauer and he will write you independently to tell you what good progress is being made in speeding up the publication of papers in the Journal of Polymer Science. Since I am a polymer chemist myself and have the interest of the Journal at heart, you may rest assure that I will do whatever I can to help in making the Journal of Polymer Science a satisfactory publication medium for scientists everywhere. The article you refer to in your letter appeared in the latest issue of the Journal which cam out on December 9 and is on its way to you.

With best regards and all good wishes for the New Year to both Rosita and to you,

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Ed Immergut

E. H. Immergut
Editor

EHI:JD

P.S. Your two letters of December 21 and 24 have just arrived in todays mail. I enquired about the time presently required for publication of articles in the Journal and it takes us approximately six months and possibly less from the time of receipt of the article in our office. Therefore, if you would send us your articles in January they could be in the July or August Journal. I would like to assure you again that every effort will be made to have your articles come out as soon as possible although sometimes it is difficult for us to speed up the refereeing process.

5-6 mon

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

November 30, 1959

Professor Guilio Natta
Via Mario Pagano 54,
Milano, Italy

Dear Prof. Natta:

I thought you might be interested to learn that I have moved from Dunlop Research Centre and am now with Interscience Publishers as an editor. I am working with Dr. Eric S. Proskauer, editor-in-chief and chairman of the firm, in developing new books and other new publishing projects. One of my responsibilities is to establish and maintain contact with scientists at universities and in industry.

If at any time you have a literary problem where you feel I might be able to help you, or if you have ideas and suggestions involving the writing or editing of a book, I hope you will get in touch with me.

With best personal regards.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Ed Immergut

E. H. Immergut
Editor

EHI:jd

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N.Y.

LEXINGTON 2-1727

1217

EXECUTIVE OFFICES

November 25, 1959

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Professor Mark showed me a copy of the manuscript entitled "Progress in the Stereospecific Polymerization" which was presented at the Wiesbaden Symposium.

We are considering publication of this article in the Journal of Polymer Science and would, therefore, appreciate it very much if you could clear this matter with Professor Kern who is one of the men in charge of this meeting.

As soon as we hear from you that Professor Kern has no objections to our publication of your manuscript, we can start getting it ready for the Journal.

Hoping to hear from you and with best personal regards.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

E. H. Immergut

E. H. Immergut
Editor

EHI:JD

THEODORE O. J. KRESSER

611 - 7TH STREET
ORANGE, TEXAS
TU 3-3157

June 1, 1959

4 copies

Professor Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

Scientific work must get to be known sooner or later by a considerable group of people who have neither the need nor the ability to understand it fully.

I am engaged in writing a book "Polypropylene Applications" for the Reinhold Publishing Company in New York, similar to one I wrote several years ago on polyethylene applications. This is intended to serve the group of people who will be using, or be considering using polypropylene for various purposes. In general they will not be readers of the scientific publications, or people with training in polymer chemistry.

The main purpose of the book will be to present the properties and uses of the commercial polypropylene available.

However the great importance and general interest of the theoretical work that led up to the production of these materials makes me wish to include a rather fuller discussion of these aspects than is usual in such a book.

I wish if possible to avoid errors and mis-statements in this portion of

THEODORE O. J. KRESSER

611 - 7TH STREET
ORANGE, TEXAS
TU 3-3157

the book, even though the need to avoid technical language will inevitably make my presentation less precise.

Since the greatest part of the scientific work done on this subject is your own, I am writing to ask your help in this matter.

If I would prepare a chapter on this subject based mostly on your published work but at the technical level I consider appropriate to the planned audience, would you be willing to read it and correct errors if necessary?

If you would be willing to do this it would be an aid to the growth of the polypropylene industry, and I would be very grateful to you.

Please let me know if you are willing to help me.

Your truly

Theodore O. J. Kresser

TK/r

Theodore Kresser

MONTECATINI

Società Generale per l'Industria Mineraria e Chimica

AMMINISTRATORE DELEGATO

Data, 13 giugno 1959

PROMEMORIA

G/ra

per il Signor PROF. NATTA

c.p.c. Ing. ORSONI
Ing. BALLABIO
Ing. DE VARDA

Caro Natta,

dica pure al Signor Kresser, come Ella pensa, di mandarci in visione il manoscritto: e, aggiungerei, perchè da parte nostra si possa, con le nostre conoscenze, integrarne il contenuto.

Dico questo naturalmente per incoraggiare il Sig. Kresser a mandare il manoscritto perchè quanto a fare le aggiunte sul serio sono molto prudente ed invito Lei ed i nostri a fare altrettanto.

Cordialmente,

THE FLORIDA STATE UNIVERSITY

TALLAHASSEE

INSTITUTE OF MOLECULAR BIOPHYSICS
DEPARTMENT OF CHEMISTRY

June 1, 1962

Professor G. Natta
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci
32 Milano, Italy

Dear Professor Natta:

I read with great interest your recent article in the JACS, 84, 1488 (1962) on the preparation and properties of crystalline syndiotactic polypropylene. If reprints are available, I would very much appreciate one.

One question comes to my mind, and that is the melting point of the polymers, which I find not mentioned in the paper. If this information is also available I would greatly appreciate if you could forward it to me.

Kindest personal regards.

Sincerely yours,

Leo Mandelkern
Professor of Chemistry

LM/jc

24th December 1959

Prof.E.H.Immergut, Editor
Interscience Publishers
Inc.,
250 Fifth Avenue,
New York 1 U.S.A

our refs. 1302 /eg

Dear Prof. Immergut,

after mailing my letter of December 21st, I received a copy of the September issue of the "Journal of Polymer Science" (vol.XXXIX, issue 135), where I found the lecture I presented in San Francisco, published.

I am very glad of it although the work has been published with a great delay.

With my best regards and wishes both to Mrs.Immergut and you

G.Natta

Dec. 21, 1959

Prof. E.H. Immergut, Editor
Interscience Publishers Inc.
250 Fifth Avenue,
New York 1, N.Y. (U.S.A.)

ns.rif.1287/lv

Dear Professor Immergut,

following my letter of Dec. 18, I beg you to inform Prof. Mark, instead of Dr. Proskauer, of my opinion concerning the publication of our works on the "J. Polymer Sci."

I also would like to know when you think that some works of mine will be published in the Journal of Polymer Science, if I send them to you next month.

I renew my best wishes and I send you my best regards.

G. Natta

Dec.18, 1959

Prof.E.H.Immergut, Editor
Interscience Publishers Inc.
250 Fifth Avenue,
New York 1, N.Y. (U.S.A.)

our.ref.1217/lv

Dear Professor Immergut,

It was a real pleasure for me to learn from your letter of Nov.30 that you are with the Interscience Publishers now, where you may show a very interesting activity. I wish you a great success.

With regard to your request to publish the lecture I presented at the Wiesbaden Symposium, on the Journal of Polymer Science, I inform you that I sent copy of it to Prof.Mark, wishing to assent to his request, but believing that he would have just desired to read it and not to publish it. As the text of my lecture is going to be published in "Die Makromolekulare Chemie" in English, I believe that its publication in the Journal of Polymer Science is not necessary.

I do not hide from you that I am not satisfied with "The Journal of Polymer Sci." for the slowness with which our works are published in. I know for certain that this slowness causes deep grievances also to scientists of other European countries. As a direct consequence, we notice the rise in Europe of other magazines dealing with the polymeric field. I beg you to inform Dr.Proskauer of this, on my part.

On that purpose, I may tell you that I sent Prof.Mark the text of the lecture I had held in S.Francisco in April 1958, for publication in the Journal of Polymer Sci. The manuscript had been, most probably, lost and therefore I sent Prof.Mark another manuscript in June 1958. I received the proofs of that work in the Summer 1959, one year after the shipment of the 2nd manuscript. I sent the corrected proofs back three of four months ago, but, till now, the work has not been published yet.
Therefore you can imagine that I am rather dissatisfied with

Dec. 18, 1959

sheet 2

the behaviour of the "Journal of Polymer Science" towards me.

I would love to publish some works of mine in that Journal, but I will do it only if those works will be published with greater speed.

I send you all my best wishes for the New Year and my kindest regards.

G. Natta

JOSEPH R. MARES
Industrial Chemical Consultants

HENRY GROPPE
ASSOCIATE

P. O. BOX 686
DICKINSON, TEXAS
TELEPHONE 7-5659

COMMERCE BUILDING
HOUSTON 2, TEXAS
TELEPHONE CA 8-5025

October 2, 1959

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Mrs. Mares and I had promised ourselves a visit to Italy long before you and Mrs. Natta were here. It now appears that this will be a reality. I am writing in the hope that when we arrive that you and Mrs. Natta will be able to save an evening for us. We are leaving tomorrow for Japan and the Near East and expect to be at the Excelsior Hotel in Rome November 8 - 9, and at the Principe e Savoia in Milan November 10 - 13. Mrs. Mares' interests are more classical than mine but we hope that the opera season will have opened and that there will be an opportunity to attend.

I personally hope that in addition you will have time to show me your excellent research establishment. I know that this will be a busy season for you. Perhaps if you are not able to arrange your plans in order that we shall have a chance to visit with you that someone at the University office will be apprised by you of our coming and will be able to take me through the Institute.

With best wishes to you and Mrs. Natta.

Sincerely,

Joseph R. Mares

Joseph R. Mares

JRM/gbs

Cerare corrispondenza

Oct.6, 1959

Dr.J.W.Stout, Editor
The Journal of Chemical P
Institute for the study o
Metals
University of Chicago,
Chicago, 37, Illinois

nar ref.1077/lv

Dear Dr.Stout,

Dr.Corradini informed me of the publication charge ($ 30 per printed page) you suggest to publish his Letter entitled "The Structure of Tetracobaltdo= decarbonyl" in the Journal of Chemical Phy= sics.

I wish to confirm you that the Institute of Industrial Chemistry of the Milan Polytechnic will pay the above-mention= ed publication charge.

With my best regards.

G.Natta

June 16, 1959

Theodore O. J. Kresser Esq.
611-7th Street,
Orange (Texas)

our ref. 691/lv

Dear Mr. Kresser,

thank you for your kind letter of June 1, 1959, concerning the book "Polypropylene Applications" you are going to write.

I shall be very pleased to read the part of your text concerning the properties and uses of the commercial polypropylene available. I will inform you if in your manuscript, by chance, I notice either the absence of important data or statements not agreeing with our results.

With my best regards,

G. Natta

9 giugno 19[illegible]

Spett. Ing. A. Giustiniani
Amministratore Delegato
Soc. Montecatini
[illegible]

p.c. Dott. B. [illegible]
Ing. G. De Varda
Ing. G. Ballabio

Prot. n. [illegible]/oc

Gr. Ill.mo Signore,

Ricevo una lettera, di cui invio copia, da Theodore S. F. Kramer che ha già scritto un libro sul polietilene e sta scrivendo un altro sulle applicazioni del polipropilene.

Vorrebbe sapere come conviene rispondere a tale riguardo; io gli risponderei di rivolgersi in Italia il suo consulente.

Cordiali saluti.

. Petra

Alb/

June 6, 1962

Prof. Leo Mandelkern
The Florida State University
Institute of Molecular Biophysic
Tallahasse (USA)

our ref. 457/eg

Dear Professor Mandelkern:

With regard to your letter of June 1, I wish to inform you that the reprints of my article in the JACS 84, 1488 (1962) are not available yet.

In this article we did not indicate the melting point of crystalline syndiotactic polypropylene, because a high-steric-purity product has not been obtained by us yet. The products described show a melting temperature varying with the crystallinity; however, since we have not obtained yet products with a degree of crystallinity higher than 50%, the determination of the melting temperature of the polymer can only be approximate.

Generally the syndiotactic polymers melt at higher temperatures than the isotactic ones. For instance, this occurs in the case of syndiotactic -1,2 polybutadiene which melts at 155°C, whereas the isotactic one melts at 127°C. Also the syndiotactic cis-1,4 poly-1-methylbutadiene melts at 52-55°C, that is its melting temperature is higher than that of the corresponding isotactic polymer (44°C).

Kindest regards.

G.NATTA

Oct.5, 1959

Dr.Joseph R.Mares
-Hotel Excelsior
R o m a
-Hotel Principe e Savoia
Piazza della Republica
M i l a n o

our ref.1067/lv

Dear Dr.Mares,

Thank you for your kind letter of October 2.

According to our plans, Mrs.Natta and I should be in Germany during the first fortnight of November. We are therefore very sorry not to be in Milan from the 10th to the 13th of November, unless it will be possible for us to anticipate our return. If so, we shall be very glad to meet Mrs.Mares and you.We always remember your and Mrs.Mares' kindness in Houston, and it will be a great pleasure for us to meet you again.

Even if I am absent, some assistants of mine (Prof.Mazzanti, Prof.Corradini, Professor Danusso) will be very glad to accompany you in your visit to my Institute.

As soon as you arrive in Milan, please, ring my secretariat up, inquiring either of Dr.Lamma or of Dr.Vascaroni about further arrangements for your visit.

With my best wishes and regards.

G.Natta

CHEMICAL MARKETING & RESEARCH CO.
10 EAST 39th STREET
NEW YORK 16, N. Y.
MUrray Hill 5-8636

September 10, 1959

4
993

Dr. G. Ballabio
Montecatini Company
Direzione Settore Idrocarburi
Via Turati 18, Milan
Italy

Dear Dr. Ballabio:

I understand from Professor Natta that you might have stereoblock atactic polymer by-product having a density less than 0.9 and an average molecular weight around 3000 - 4000. If it is possible, could you please send me some information on the typical analysis of this material? Also, would it be possible for you to send a small sample of this material, C.O.D., for testing purposes.

My inquiry is made on behalf of a client in the chemical industry who is interested in purchasing this material.

Very truly yours,

James M. Margolis

JMM/hh
cc: Dr. G. Natta

CHEMICAL MARKETING & RESEARCH CO.
10 EAST 39th STREET
NEW YORK 16, N. Y.
MUrray Hill 5-8636

September 10, 1959

Dr. S. Larcher, Director
Polymer Company
Via Turati 18, Milan
Italy

Dear Dr. Larcher:

I understand from Professor Natta that you might have stereoblock atactic polymer by-product having a density less than 0.9 and an average molecular weight around 3000 - 4000. If it is possible, could you please send me some information on the typical analysis of this material? Also would it be possible for you to send a small sample of this material, C.O.D., for testing purposes.

My inquiry is made on behalf of a client in the chemical industry who is interested in purchasing this material.

Very truly yours,

James M. Margolis

JMM/hh
cc: Dr. G. Natta

Ans

August 24, 1959

Mr. James M. Margolis
Chemical Marketing & Research
10 East 39th Street,
New York 16 -N.Y.-

our ref. 872/lv

Dear Mr. Margolis,

I acknowledge receipt of your letter of July 17, concerning the polyethylene and polypro= pylene polymers of low molecular weight.

I forwarded your letter to Dr. G. Ballabio, Montecatini Company, Direzione Settore Idrocarburi, Via Turati 18, Milan, and to Dr. S. Larcher, Director Polymer Co., Via Turati 18, Milan, in order to let them decide whether some of their by-products can satisfy to your exigencies.

I inform you that crystalline isotactic polymers of low molecular weight, may be expressly prepared, if it is possible to find a sufficiently important market.

At present it is possible to obtain, as by-products of some processing, stereoblock or atactic polymers having a density lower than 0,9 and an average molecular weight higher than 3000.

With best regards.

Sincerely yours,

G. Natta

CHEMICAL MARKETING & RESEARCH CO.

10 EAST 39th STREET ◆ NEW YORK 16, N.Y. ◆ MUrray Hill 5-8636

July 17, 1959

Dr. Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

Subject: Polyethylene and Polypropylene "By-Product"

Dear Dr. Natta:

On behalf of one of our good clients, we are seeking a source for low molecular weight isotactic polypropylene or polyethylene fractionated off in the production of commercial grades of these polymers.

By "low molecular weight," I am referring to the order of a few thousand, such as 3000 and a density less than 0.90. We believe we have a commercial use for this material which is difficult to obtain here. It seems this "by-product" is either committed to other purchasers, or possibly recycled, or it may even be blended.

Your assistance will be very much appreciated by advising us of manufacturers, such as your licensees in Europe, whom we could contact for the purpose of obtaining this material.

Enclosed is some literature on Chemical Marketing and Research Company activities as background information.

Thank you for your consideration of this request.

Sincerely,

James M. Margolis

James M. Margolis

JMM/hh
Enclosure

"MONTECATINI"
SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

AMMINISTRATORE DELEGATO

G/sb

Milano, 21 aprile 1959

Caro Natta,

ho ricevuto la Sua del 13 aprile e sono d'accordo di contribuire alle spese di viaggio del Prof. Mark nella misura di 150 dollari.

Cordiali saluti.

Preg.mo Signor
Prof. GIULIO NATTA
MILANO.

MONTECATINI
Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

Data, 31 Luglio, 1959.

/gc

PROMEMORIA

per il Signor Prof. G. Natta - Ist. Chim. Ind.
Politecnico di Milano.

Egregio Professore,

Con riferimento alla Sua lettera N.889/rl del 28 Luglio u.s. siamo d'accordo sul contenuto della bozza di risposta alla Chemical Marketing & Research Co. di New York.

Distinti saluti.

BREVETTI E DOCUMENTAZIONE
TECNICA

spedire lettera se non
ancora spedita

28 Luglio 1959

Egr.Sigg. Ing.G.Ballabio -SEID
Ing.S.Larcher - Poly
Dr.R.Pirani - BREV

Società Montecatini

Sede

Rif.N.889/rl

Ricevo una lettera dalla Chemical Marketing & Research Co. di cui Vi invio copia. Penserei di rispondere secondo la bozza che Vi allego, a meno che non preferiate che risponda la Montecatini direttamente.

In attesa di una Vostra risposta in merito, invio i migliori saluti.

G.Natta

N.2 allegati

13th March 1959

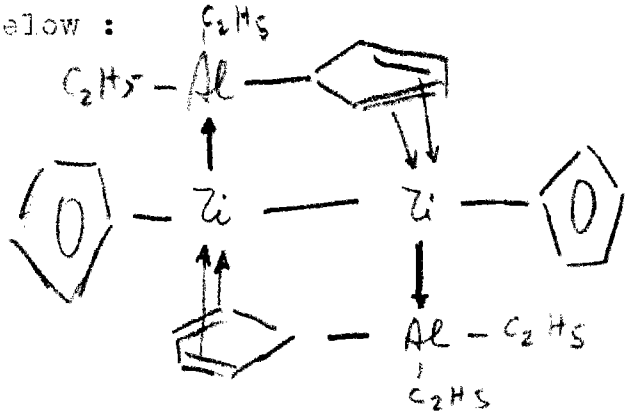
Dr. F. Albert Cotton
Editor Progress in Inorganic
Chemistry
c/o Dept. of Chemistry
Massachussetts Institute
of Technology
Cambridge 39, Mass. U.S.A.

335/mb

Dear Dr. Cotton,

I have received your letter of March 3 and I give you with pleasure the permission to reproduce Fig. 3 of the paper which appeared on J. Amer. Chem. Soc. 80, 756 (1958).

I would like to inform you that we have synthesized other Ti-Al complexes containing chlorine (e.g. $Cp_2TiCl_2AlCl_3$ and $Cp_2TiCl_2AlCl_2$) and Ti-Al complexes without halogens (e.g. $(Cp_2TiAlEt_2)_2$. We are studying by X-rays all these compounds. The structure of the last complex, sketched below :



was speedily discussed in a paper to be published on Rend. Accad.Naz. Lincei, together with its catalytic properties. I shall send a reprint of the paper as soon as possible.

We are also publishing X-ray structure data on single crystals of the complex $C_6H_6Cr(CO)_3$. We have found that :

1) The benzene carbon atoms have fixed positions and are all placed at the same distance (2.25 ± 0.05 A) from the chromium atom.

./.

2) The plane in which the oxygen atoms are constrained is parallel within experimental errors to the benzene ring.

3) The C and O atoms of each C=O group are collinear with the chromium atom.

4) The OC-Cr-CO angles are equal and vary [illegible] to 90° (exp. 90°). The C-Cr distances are 2.05 ± 0.05 Å (to compare with the value 3.08 Å quoted for chromium-hex carbonyl).

It seems to us that the shape of the molecule thus established (see enclosed figure) favours the hypothesis of a d^2sp^3 hybridisation of the chromium atom in chromium-tricarbonyl arenes.

With best regards.

Sincerely yours,

G. Natta

PROGRESS IN INORGANIC CHEMISTRY

Please reply to: F. Albert Cotton, Department of Chemistry, Massachusetts Institute of Technology, Cambridge 39, Massachusetts

March 3, 1959

Prof. Giulio Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Prof. Natta:

Prof. G. Wilkinson and I have written a review article on metal sandwich compounds which is to be published in Volume I of a new series of annual reviews entitled Progress in Inorganic Chemistry. We should like your permission to reproduce Fig. 3 in your paper which appeared in J. Am. Chem. Soc., 80, 756 (1958).

Yours sincerely,

F. A. Cotton

F. Albert Cotton

FAC:crh

Ricevo la lettera del 3 - e non oltre dare il mio consenso a riprodurre nella Vs rivista il mio lavoro pubblicato sulla Am. Ch. Soc.

Desidero informarvi che altri composti che preparo e studio sono (prochlorosi contenenti Ti e Al)

$Cp_2 Ti Cl_2 Al_2 Et_6$

$Cp_2 Ti Cl_2 Al Cl_2$

ed altri usati da alcuni gruppi

$[Cp_2 Ti Al Et_2]_2$

Quest'altro è in corso di pubblicazione sulla Rend. Acc. Lincei, e Vi invierò l'estratto appena mi pervenirà.

Attiamo Pure in corso di pubblicazione il studio del complesso

$C_6H_6 Cr (CO)_3$

16 ottobre 59 al tempo [illegible]

Published by INTERSCIENCE PUBLISHERS, INC., New York, N. Y.

Decatur, Alabama: 26 Agosto 1959.

Professore G.Natta
Istituto Chimica Industriale
Politecnico
Milano.

Gentile Professore,

il campione di polibutene atattico mi ha raggiunto nella mia nuova residenza in Decatur, Alabama dove ho accettato per un anno una posizione offertami dal centro di ricerche della Chemstrand Corporation. Desidero ringraziarla ed appena possibile le inviero' i risultati ottenuti con i campioni di polibutene atattico ed isotattico.

Il Professor Flory si e' offerto di partecipare all'articolo riassuntivo sull'elasticita' dei polimeri che io vorrei pubblicare in Italiano e che Lei gentilmente si e' offerto di trasmettere. La partecipazione del Prof. Flory richiedera' un po' piu' di tempo per completare il lavoro che tuttavia risultera' certamente piu' interessante.

La ringrazio ancora sentitamente della sua profonda gentilezza e le porgo i miei piu' sinceri e devoti saluti.

Alberto Ciferri

A.Ciferri

Pittsburgh 19 Giugno 1959

Professor G.Natta
Istituto di Chimica Industriale
Politecnico di Milano
Italy.

Egregio Professore,

dobbiamo ancora approfittare della sua gentilezza chiedendole un campione di polibutene atattico. La vulcanizzazione del polibutene isotattico che recentemente ci invio' e' ben riuscita ed e' ora interessante poter misurare se gli impedimenti energetici alla rotazione intorno ai legami principali sono diversi per le catena atattica e isotattica.Sarebbe mio desiderio completare questo studio prima di lasciare il Mellon Institute il che avverra' probabilmente verso la meta' di Agosto.In quel periodo scadra' infatti il mio termine come "visiting Fellow" e, non essendo mia intenzione restare stabilmente a Pittsburgh, non credo assumero' una posizione permanente al Mellon.

Ho quasi pronto un articolo riassuntivo dei risultati teorico-sperimentali ottenuti nel nostro laboratorio negli ultimi due anni nel campo dell'elasticita' dei polimeri.Separati articoli sono stati inviati a riviste americane e non appariranno che con forte ritardo cosicche' sarebbe mio desiderio,con l'autorizzazione del Prof.Flory, completare un quadro d'insieme e pubblicarlo in Italiano. Certo c'e' un po' di sentimentalismo in questo mio desiderio! Posso inviare il manoscritto a Lei?Un possibile titolo sarebbe "presente stato della teoria dell'elasticita' della gomma".

La ringrazio sentitamente,anche a nome del Prof.Flory,del costante aiuto ed insieme alla Signora Natta gradisca l'espressione della nostra costante e profonda considerazione.

A.Ciferri

Ricevuta

28.X.1959

Egr.Dr.A.CIFERRI
Mellon Institute
4400 Fifth Avenue
PITTSBURGH 13 + Pa. - USA

Rif.N.766/rl

Egregio Dottore,

Le prego di scusarmi se rispondo con tanto riatdo alla Sua lettera del 19 giugno. Il ritardo è dovuto al fatto che non avevamo pronto il campione richiesto e che mi sono dovuto assentare dall'Istituto anche per un viaggio all'estero.

Le ho spedito un campione della frazione estraibile con etere, non estraibile con acetone, ottenuta da un polibutene preparato con catalizzatore $TiCl_3+Al(C_2H_5)_3$.

Per quanto riguarda il Suo lavoro, mi mandi pure il manoscritto : vedrò di inoltrarlo alla rivista italiana che risulterà più adatta.

Molti cordiali saluti al Prof.Flory e a Lei e Signora.

(G.Natta)

4th December 1959

Prof. P.Flory
Executive Director of
Mellon Institute
4400 Fifth Avenue,
Pittsburgh, 13 Pa. (U.S.A.)

our refs. 1235/eg

Dear Professor Flory,

With great pleasure I am forwarding to you, through the secretary of Mr.Lucini of Montecatini Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytechnic Institute on stereospecific Polymerization and stereoregular polymers.

This collection may also prove useful to you as a compact reference, since the numerous papers were, up to now, rather scattered in many publications.

With my best personal regards,

I am,

Sincerely yours,

G.Natta

4 Marzo 1959

Prof. PAUL J.FLORY
Mellon Institute
4400 Fifth Avenue
PITTSBURGH 13, Pa. - USA

Rif. n° 12/19
/ce

e p.c. Dr. A.CIFERRI

Caro Professore,

La prego di scusarmi per il ritardo con cui rispondo alla Sua lettera del 31/12/58 ed a quella del Dr.Ciferri del 2/1/59 e per il fatto che Le scrivo in italiano, ma penso che il Dr.Ciferri potrà tradurLe quanto le scrivo.

Ho tardato anche a scriverLe perchè ho voluto controllare quale tra i diversi sistemi di vulcanizzazione fosse più semplice e richiedesse la minor aggiunta di sostanze estranee.

La vulcanizzazione del polibutene isotattico può essere eseguita con perossidi organici in presenza di sostanze che regolano la decomposizione del perossido. Un esempio di ricetta può essere la seguente :

- polimero	parti	100	in	peso
- dicumilperossido	"	1	"	"
- acido maleico	"	2	"	"

Vulcanizzazione 160°C x 30 minuti.

Qualora si desideri si può aggiungere alla mescola sopra citata 2-3 parti in peso di ossido di zinco, ottenendo una maggior vulcanizzazione.

./.

4 Marzo 1959

Rif. n° 12/19
/ce

Altre sostanze regolatrici della decomposizione del perossido possono essere lo zolfo, lo stirolo, il divinilbenzolo.
Con quest'ultimo (in quantità di circa 10 parti in peso) si raggiungono vulcanizzazioni ottime. La vulcanizzazione è stata da noi eseguita sempre a 160° per 30 minuti.

Nel caso che occorressero altri campioni, eventualmente di diverse composizioni La prego di scrivermelo. Sarò lieto di inviarLe tutto quanto potrà occorrerLe.

Cordiali saluti.

(Prof. G.Natta)

Pittsburgh, Gennaio 2, 1959

Professor Giulio Natta
Istituto di Chimica Industriale
Piazza Leonardo da Vinci 32
Milano, ITALY

Gentile Professor Natta,

come il Professor Flory Le ha scritto sono alquanto perplesso circa il miglior modo per mettere qualche crosslinks nel polibutene isotattico da Lei inviatoci. Le sarei veramente grato se Lei o uno dei suoi collaboratori potesse inviarmi informazioni al riguardo. La presenza di impurezze non e' di per se stessa critica a meno che non provochi degradazione a temperature superiori a quella di fusione (quale e' questa temperatura di fusione?). Conto di usare il campione di polibutene per vedere se e' possibile seguire la trasformazione dimorfa della quale Lei mi parlo' nella sua lettera dell'8 Gennaio 1958.

Recentemente abbiamo avuto qualche successo nel dimostrare che la teoria dell'elasticita' della gomma e' fondamentalmente esatta nella predizione della curva di stress-strain; deviazioni riportate fin dal 1946 sono attribuibili alla difficolta' di realizzare misure di stress strain in condizioni di equilibrio. Risultati saranno presentati al prossimo congresso dell'American Physical Society in Cambridge, Mass.

La ringrazio per la sua simpatica cartolina di auguri e Le rinnovo i miei insieme all'espressione del nostro profondo rispetto.

Cordi Alfeb Ciferri

A. Ciferri

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

31 December 1958

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Professor Natta:

The samples which you so kindly sent reached us today and I want to assure you of our deep appreciation of your assistance.

We plan first of all to investigate the elastic behavior of the predominantly isotactic polybutene-I when suitably cross-linked. We shall be especially interested in the stress-temperature behavior of this polymer. It will be necessary first of all to cross-link the sample, and Dr. Ciferri may solicit advice from you, or one of your collaborators, on the best methods for this purpose. I believe he intends to write you accordingly.

Secondly, Dr. M. J. Richardson hopes to investigate the change in degree of crystallinity of the ethylene-propylene copolymer with temperature up to its melting point. He will undertake dilatometric measurements under conditions affording optimum approach to equilibrium. At the present time he has synthesized copolymers in a similar range of composition from diazomethane and diazoethane. Ultimately, we may be able to compare these copolymers with the one which you have made available to us.

We shall inform you of the results obtained in both of these investigations if our plans succeed. If the former experiments are successful, it will be particularly interesting to investigate the elastic behavior of atactic polybutene. Is it possible to obtain an atactic (or eutactic) polymer from butene-I?

With thanks again for your assistance and my very best regards to you and your family, I am

Sincerely,

Paul J. Flory

Paul J. Flory

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

THE TECHNOLOGICAL INSTITUTE

July 20, 1959

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, ITALY

Dear Professor Natta:

I was sorry to receive your letter of July 16 indicating that your Institute will not be opened until the 31st of August.

Since I would like very much to see your facilities and talk with some of your staff, I will try to rearrange my schedule to come to Milan, as originally planned, on August 31.

I will call your secretary on August 31 in order to confirm arrangements for visiting the Institute on that day.

Sincerely yours,

J. M. Smith, Professor and Chairman
Department of Chemical Engineering

JMS:ss

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

THE TECHNOLOGICAL INSTITUTE

July 9, 1959

Professor Givlio Natta
Professor of Industrial Chemistry
(Polytechnic)
Citta Studi
Milan, ITALY

Dear Professor Natta:

Thank you for your letter of June 18 indicating that I may visit your Institute and that a colleague of yours will be there to meet me.

As our schedule for travelling becomes settled, it appears that it will be necessary for me to come to Milan somewhat prior to August 31. I will be coming to Italy from the Thermodynamics Conference in Wattens, Austria, and this conference ends August 25. Therefore, might I suggest that I come to your Institute August 27 or 28? As soon as we reach Italy I will call your secretary by telephone and make an appointment at a definite time on August 27 or 28.

I am looking forward to visiting your laboratories very much and regret that you will not be there. Perhaps we will have an opportunity to meet again either in this country or in Italy. If you are in the United States and come to the Chicago area at any time in the future, I would like very much to have you visit Northwestern University.

Sincerely yours,

J. M. Smith

J. M. Smith, Professor and Chairman
Department of Chemical Engineering

JMS:ss

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

THE TECHNOLOGICAL INSTITUTE

June 10, 1959

Professor Givlio Natta
Professor of Industrial Chemistry
(Polytechnic)
Citta Studi
Milan, Italy

Dear Professor Natta:

Thank you for your letter of June 3. I am sorry that you will not be in Milan on August 31. However, it was most thoughtful of you to arrange for someone else to show me your laboratory and discuss your program in industrial chemistry.

I look forward to visiting your University and will come to your office on August 31. Will this be a satisfactory procedure in order to meet the person who will conduct me through the laboratories?

Sincerely yours,

J. M. Smith, Professor and Chairman
Department of Chemical Engineering

JMS:ss

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

THE TECHNOLOGICAL INSTITUTE

May 27, 1959

Professor Givlio Natta
Professor of Industrial Chemistry
(Polytechnic)
Citta Studi
Milan, ITALY

Dear Professor Natta:

I plan to be in Europe this summer in connection with the XVII International Congress of Pure and Applied Chemistry in Munich. In order to familiarize myself with some of the educational programs in chemical engineering and chemical technology in Europe, I would like to visit universities as a part of this trip.

In particular, would it be possible to spend an hour or two with you in Milan on August 31? I do not want to impose unduly on your time, but would like to spend part of the morning on that day seeing your laboratory and obtaining some idea of your educational program in industrial chemistry.

I look forward to the possibility of meeting you and seeing something of your university.

Sincerely yours,

J. M. Smith

JMS:ROD

J. M. Smith, Professor and
Chairman, Department of
Chemical Engineering

Ann.

4 Marzo 1959

Prof. PAUL J.FLORY
Mellon Institute
4400 Fifth Avenue
PITTSBURGH 13, Pa. - USA

Rif. n° 12/19
/ce

e p.c. Dr. A.CIFERRI

Caro Professore,

La prego di scusarmi per il ritardo con cui rispondo alla Sua lettera del 31/12/58 ed a quella del Dr.Ciferri del 2/1/59 e per il fatto che Le scrivo in italiano, ma penso che il Dr.Ciferri potrà tradurLe quanto le scrivo.

Ho tardato anche a scriverLe perchè ho voluto controllare quale tra i diversi sistemi di vulcanizzazione fosse più semplice e richiedesse la minor aggiunta di sostanze estranee.

La vulcanizzazione del polibutene isotattico può essere eseguita con perossidi organici in presenza di sostanze che regolano la decomposizione del perossido. Un esempio di ricetta può essere la seguente :

- polimero	parti	100	in	peso
- dicumilperossido	"	1	"	"
- acido maleico	"	2	"	"

Vulcanizzazione 160°C x 30 minuti.

Qualora si desideri si può aggiungere alla mescola sopra citata 2-3 parti in peso di ossido di zinco, ottenendo una maggior vulcanizzazione.

./.

4 Marzo 1959

Rif. n° 12/19
/ce

Altre sostanze regolatrici della decomposizione del perossido possono essere lo zolfo, lo stirolo, il divinilbenzolo. Con quest'ultimo (in quantità di circa 10 parti in peso) si raggiungono vulcanizzazioni ottime. La vulcanizzazione è stata da noi eseguita sempre a 160° per 30 minuti.

Nel caso che occorressero altri campioni, eventualmente di diverse composizioni La prego di scrivermelo. Sarò lieto di inviarLe tutto quanto potrà occorrerLe.

Cordiali saluti.

(Prof. G.Natta)

July 16, 1959

J.M.Smith, Professor and
Chairman Dept. Chem. Engine
Northwestern University
Evanston, Illinois
(U.S.A.)

our refs.827/eg

Dear Professor Smith,

Thank you for your letter of July 9, 1959. I am sorry that your travelling schedule does not allow you to come to Milan after the 30th of August. As a matter of fact our Institute will be opened just on the 31st of August: it will be therefore impossible to visit it before that day.

Being sincerely sorry for all these unfavourable circumstances, I hope you will find another opportunity of visiting us.

With best regards.

G.Natta

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York

October 8, 1959

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Sir:

Thank you for the manuscript which you are submitting for publication in the Journal of Polymer Science.

We shall be glad to consider your paper for publication and shall advise you of the referee's comments.

AUTHOR(S): D. Sianesi and P. Corradini

TITLE: "On Crystalline Poly(fluorostyrenes)"
(Letter to the Editor)

Very sincerely yours,

H. Mark

H. Mark, Editor

A. Sianesi
Corradini

POLYTECHNIC INSTITUTE of BROOKLYN

333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

OM.

September 25, 1959

Dear Professor Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Arr: Polytechn Brooklyn

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York

September 24, 1959

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of September 9, 1959.

The manuscript entitled "Chain Structure of poly-m-methylstyrene," by P. Corradini and P. Ganis has been accepted for publication in the Journal of Polymer Science.

As always, with kindest best wishes and regards,

I am,

Sincerely yours,

H. Mark

H. Mark

HM:ff

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

Fun

July 13, 1959

Dear Professor Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

ULSTER 5-8000

June 30, 1959

Professor Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

During September and October of 1959, Dr. Philip Weiss, Head of the Polymer Department of General Motors will make a trip to Europe to attend the Wiesbaden Conference.

At this occasion he would like to visit your laboratory and have the pleasure to meet you and some of your associates. If you should be interested Dr. Weiss would also be pleased to deliver a short lecture (45 minutes) either on "Synthesis and Properties of Vinyl Type Graft Copolymers" or "High Heat Resistant Plastics and Rubbers". He has done a considerable amount of work in both fields and would not only present an up to date review but flavor it with new data of his own. As a suitable date I would suggest October 5, 1959.

In case that you should be interested in having Dr. Weiss visit your laboratory please contact him directly at:

General Motors Corporation
Research Center
Box 188, North End Station
Detroit 2, Michigan

Permit me to remain, with kindest regards and very best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:rr

POLYTECHNIC INSTITUTE of BROOKLYN

333 JAY STREET • BROOKLYN 1, NEW YORK

ULSTER 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

May 15, 1959

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32,
Milano, Italy

Dear Professor Natta,

Please excuse the delay in answering your kind letter of April 20, 1959, but I have only just returned from a trip to the USSR.

Congratulations on your being invited to participate in the "Annual Dinner."

Unfortunately, I cannot leave here any earlier and, therefore, shall postpone the visit to Milano until the Fall, because we certainly would like to see you and Rosita.

Mimi joins me in extending to you and Rosita our warmest personal regards and best wishes.

Very sincerely yours,

H. Mark

HM:ff

H. Mark

impossibile
lettere e poesie
libro Prof. Mark.
Dietro che visita di autunno
per seminario
avrò piacere di
vederlo anch'io.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

April 10, 1959

Dear Prof. Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK
ULSTER 5-8000
POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

April 8, 1959

Professor G. Natta
Director
Institute of Chemical Industry
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

The program for my trip to Europe in June and July of this year is now taking shape, and I would like to approach you with the question whether you and your associates might be interesting in having me visit your laboratory and deliver a report (about 1-1/2 hours) on "Recent Progress in the Polymer Field," with special reference to the USA and the USSR.

I could be in Milano on July 6 and would be very glad to see you at least for a short time, and I would be pleased if you could indicate to me any area of special interest so that I can prepare myself properly. Also, I would very much appreciate it if it were possible for me to receive a contribution to my traveling expenses at the rate of about $150.

Looking forward to hearing from you, I am, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK
ULSTER 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

AM

March 11, 1959

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind letter of March 7, 1959.

Of course, I understand very well that you want to publish your original contributions in Italian Journals. But any article from you and your collaborators will always be very welcome in our Journal even if part of it has already been published in Italy.

The Italian journals do not have a very wide circulation in this country and, therefore, we shall be very glad to publish in English whatever you send in.

With regard to the paper you presented at the San Francisco ACS Meeting, I should like to let you know that it will appear in the May or June issue of the Journal of Polymer Science; in all proabability the May issue.

Permit me to remain, as always, with kindest personal regards and best wishes,

Very sincerely yours,

H. Mark

HM:ff

H. Mark

June 3, 1959

Prof. J.M.Smith, Chair
Dept.of Chemical Engin
Northwestern Universit
Evanston, Illinois

our ref. 671/lv

Dear Prof. Smith,

I am very sorry not to be in Milan on the 31st of August as I shall be on holydays during that period. Also the Institute is for its utmost closed during the whole months of August.

However, I shall charge a person able to inform you about our educational program in industrial chemistry, to take you around for a visit of my Institute.

I am really sorry not to have the possibility of meeting you.

Sincerely yours,

G.Natta

June 18, 1959

J.M. Smith, Professor
Dept. of Chemical Engineering
The Technological Institute
Northwestern University
Evanston, Illinois

our ref. 727/lv

Dear Professor Smith,

thank you for your letter of June 10. Surely you will be welcomed at my Institute by a co-worker of mine on August 31. If, when arriving, you ask for my Secretary, she will introduce you to the person who will show you my laboratories.

Being very sorry to miss the chance of mset= ing you, I send you all my best regards,

G.Natta

Ans.

January 27, 1959

Prof. F.R. Eirich
Polytechnic Institute
of Brooklyn
333, Jay Street
Brooklyn, 1, N.Y.
U.S.A.

100/mb

Dear Professor Eirich,

I have received the preliminary program of the Gordon Research Conference on Polymers, you were so kind to send me. Thank you very much for it.

I have observed that many very interesting lectures are expected to be delivered at that Meeting and I feel regretfully being not able to attend to it.

With my best wishes and regards, I am

Sincerely yours,

Prof. G. Natta

Bo z z a

Milano, 26 Gennaio 1959

Prof.F.R.Eirich
Polytechnic Institute pf
Brooklyn

Dear Professor Eirich,

Ho ricevuto il preliminary program della Research Gordon/Conference on Polymers, che Lei mi ha gentilmente inviato, e La ringrazio. Ho visto che Vi sono diverse conferenze veramente interessanti e mi spiace di non poter essere presente.

With best wishes, I am,

Sincerely yours,

4th December 19
4th December 1959

Prof. H.Mark
Polytechnic Inst.of Brooklyn
333 Jay Street
Brooklyn 1, New York
U.S.A.

our refs.1235/eg

Dear Professor Mark,

With great pleasure I am forwarding to you, through the courtesy of Mr.Lucini of Chemore Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytechnic Institute on stereospecific polymerization and stereoregular polymers.

This collection may also prove useful to you as a compact reference, since the numerous papers were, up to now, rather scattered in many publications.

With my best personal regards,

I am,

Sincerely yours

G.Natta

Nov.16, 1959

Prof.H.Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (U.S.A.

our ref.1177/lv

Dear Professor Mark,

Being encharged by Professor Natta, we sent you, under separate cover, a copy of the lecture: "Progress in the Stereospecific Polymerization" which Professor Natta presented at the Wiesbaden Symposium.

With our best regards,

the secretariat

MONTECATINI
Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

Data, 27 febbraio 1959

PROMEMORIA

RP/ij

per il Signor Prof. G. NATTA

Oggetto: Introduzione al libro di Mark.

Egregio Professore,

Ho letto la introduzione come modificata dagli editori del libro, e mi sembra che corrisponda in sostanza a quanto da Lei originariamente scritto e che quindi possa essere approvata senz'altro.

Nella terza riga, non so se la espressione "sterically regulated" sia proprio giusta e se non sarebbe meglio "sterically regular", come noi avevamo scritto.

Si potrebbe forse prendere l'occasione per eliminare la indicazione "settembre 1954" in relazione alla Sua comunicazione a Mark delle nuove scoperte, mettendo semplicemente "nel 1954" oppure abolendo anche questa indicazione e indicando però il numero dell' International Symposium che ebbe luogo allora.

La cosa però non sembra di grande importanza.

Le restituisco in allegato la lettera del Prof. Mark e la introduzione modificata.

Con ossequi.

(R. Pirani)

All.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK
TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR
~~R. R. McGREGOR, ASSOCIATE DIRECTOR~~

23/2/59

Carissimo Professore Natta!

Here is a copy of the "Introduzione" with a few linguistic adjustments made by the Publishers. Moltissimi grazie per la Sua bontezza e molti congratulazioni ai Suoi nuovi risultati interessantissimi.

Da Mimi a Rosita e da me a Lei ottimi saluti

Sempre il Suo
H. Mark

September 9. 1959

Editorial Office
c/o H.Mark
Polytechnic Inst.ofBrookly
Brooklyn 2 - N.Y.
U.S.A.

our refs.987/eg

Dear Professor Mark,

I send you, under separate cover, a paper by Corradini and Ganis: "Chain Structure of poly-m-methylstyrene", to be published on the Journal of Polymer Science.

I thank you very much for the information and abstracts of papers, you kindly sent me, and I send you my best regards.

G.Natta

6 luglio 1959

Dum.

H.F.Mark, Director
Polymer Research Institute,
Polytechnic Institute of
Brooklyn, 333 Jay Street,
Brooklyn 1. N.Y.

ns.rif. 803/lv

Egregio Professore,

il Professor Natta ha ricevuto la Sua gentile lettera del 30 giugno 1959 al momento della sua partenza per Londra. Mi ha quindi incaricato di comunicarLe che sarà molto lieto di conoscere il Dott. Philip Weiss durante la sua visita a Milano.

Il Dott. Weiss avrà pure la possibilità di tenere la breve "Lecture" sugli argomenti da Lei indicati, il 5 ottobre al Politecnico di Milano.

Con i migliori saluti,

la Segretaria

June 18, 1959

Professor H.Mark, Director
Polymer Research Institute
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, N.Y.

our ref. 629/lv

Dear Professor Mark,

please, excuse me if I answer your kind letter of May 15 only now.

I thank you very much for the preprint of your book you had the kindness to send me, which I most appreciated.

I am very glad to know that you can postpone your visit to Milan in Autumn, being thus able to meet you.

Rosita joins me in sending you and Mimi our best regards,

G.Natta

12th May 1959

H. Mark
Director
Polymer Research Institute
Polytechnic Institute of
Brooklyn -333 Jay Street
Brooklyn 1, NEW YORK
U.S.A.

our ref.583/eg

Dear Prof. Mark,

I wish to thank you for the very interesting material you have kindly sent me and for your earnest concern in keeping us acknowledged with what may be of interest to us.

With kindest regards, I am,

Very sincerely yours,

G. Natta

April 20th 1959

Prof.
H.F. Mark Director
Polymer Research Institute
Polytechnic Institute of
Brooklyn, 1 NEW YORK

our re. 463/pn

Dear Professor Mark,

thank you for your kind letter fo the 8th April.

Rosita and I would be very happy to meet you in Italy and we are looking forward to seeing Mimi as well. But as I have been invited together with prof. Ziegler to take part to the "Annual Dinner" of the English Society of Chemical Industry, which will be given in Glasgow and we must be in London on the 5th evening, we would Therefore leave Milan on the 4th or the 5th July. Therefore if you could be in Milan already before the end of June, we could spend a week (27-28 June) together on the Riviera or in the mountains.

I shall really be very pleased if you hold a seminary at our laboratory and we can contribute to your travelling expenses according to your wish. Naturally the seminary could eventually be held without me being present. However I would be extremely sorry if I could not be in Milan.

Rosita joins me in sending you and Mimi our best regards.

G. Natta

13 aprile 1959

Ing. P. Giustiniani
Amministratore Delegato
Società Montecatini

Caro Ingegnere,

Le invio copia di una lettera che ho ricevuto dal prof. Mark. Data anche la gentilezza con cui il prof. Mark si è prestato a leggere la mia conferenza a New York, sarei del parere di invitarlo e di contribuire alle spese di viaggio come è suo desiderio.

Cordiali saluti.

G. Natta

all/

March 7, 1959

Prof.H.MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

Ref.No.308/rl

Dear Professor Mark,

I thank you very much for your kind letter of February 23 and for the linguistic adjustements you made to the forward of the Gaylord-Mark book, which I approve completely.

I wish to send some new works of mine to be published on the Journal of Polymer Science, but I noted that too long time usually occurs between the forwarding and the publication of the papers on this Journal. Therefore, we used to send our papers to Italian Journals (Chimica e Industria, Rendiconti Accademia Lincei or to Germans Journales, that publish them in a shorter time.

Should you not have any difficulty in publishing works already issued on Rend.Accad.Naz.Lincei, I might send you the English translation. For instance, I have ready the English text of a work I presented in January at the Meeting of Accademia Lince It deals with crystallizable complexes containing titanium and aluminum, free from halogen atoms, and with their activity in the polymerisation of ethylene and propylene. This paper is now more complete and contains further data in respect to the one presented at the Lincei.

./.

March 7, 1959

sheet N.2

Would you kindly inform me whether the Journal of Polyme: Science will accept our paper for publication, so that I might sen it to you in a shortest time.

Looking forward to your reply, I remain,

Sincerely yours,

G. Natta

P.S. - I would like to know when do you foresee the paper presente at the San Francisco Meeting on April 1958 will be publishe Moreover, I wish you to know that a complete issue of the "Nuovo Cimento" will come our shortly and will deal with th crystalline structures of isotactic polymers, so that a further delay in publishing the San Francisco paper, will diminish the interest connected to that work.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

ULSTER 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

August 5, 1959

Professor Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Following the High Polymer Symposium in Wiesbaden I should like very much to visit your laboratory in Milan.

I shall be very grateful to you if you would let me know whether such a visit on Monday or Tuesday, October 19th and 20th would be convenient.

Thanking you for your courtesy,

Sincerely yours,

Herbert Morawetz

Herbert Morawetz

Rispondere che io non sarò a Milano, ma che potrà visitare l'Istituto chiedendo a Re. Alleppando o Sig. Crespi

N.

Introduction

The recent discovery of truly stereospecific polymerization processes capable of leading, by poly-addition of mono-substituted ethylenic units, to high yields of sterically regulated polymers is not only of considerable scientific interest, but has opened up a new branch of macromolecular research which is bound to produce far reaching developments of commercial importance. This can be safely predicted not only because of the exceptional properties of the new polymers, but also because of the availability at low cost of certain hydrocarbon monomers which, only now, as a consequence of the discovery of the sterically differentiated polymers, and with the aid of the new stereospecific catalysts, can be successfully transformed into valuable products. The application of the new techniques begins already to lead to revolutionary developments in the field of high melting plastics, strong and resistant fibers and of synthetic rubber having superior performance in recovery and tread wear.

Professor Mark, an outstanding authority in the field of macromolecular chemistry, was one of the first American scientists who recognized the great importance of stereospecific polymerization processes. He had devoted more than 35 years of his life to polymer science, had been pioneering in studies on the crystalline structure of cellulose, silk and rubber and on the relationship between shape and structure of macromolecules and their visco-elastic properties. He took a lively interest in the new discoveries when, in September, 1954, at the International Symposium on Macromolecules, we informed him of our preparation of new crystalline vinyl polymers, and he was among the first to recognize fully the importance of stereoisomerism in the macromolecular field.

Only a person with such wide and life long experience could consider, at this time, to write a monograph on Stereospecific Polymerization, a task which he undertook together with Dr. Norman Gaylord, who had already established himself as an author of great ability.

It is perhaps the first time in the history of macromolecular chemistry that a scientific discovery has been followed so rapidly by such a vast amount of research in scientific and industrial laboratories.

The results of all this work, which is carried out by thousands of scientists and engineers in Europe, America and Asia have not been hitherto collected and systematically ordered; much of it is contained in an enormous number of applications for patents in countries all over the world. The scientific part of it having been contributed in Europe only by a limited nuber of scientists has not yet been completely published in the English language. Patents represent therefore, at present, the most abundant source from which the authors could obtain their information.

However, it is not always possible to discern in a patent disclosure the facts which are actually new and of practical importance from the enormous amount of data which have only minor interest and inferior practical value. The lack of publications containing comparative data obtained in scientific laboratories makes it extremely difficult to evaluate critically the patent literature. On the other hand, the rapid development of industrial research presents difficulties for an objective comparison of data obtained at different places with different techniques. In spite of these difficulties Gaylord and Mark have suceeded to present the actual data of the art in a consise and comprehensive manner. Even though the text still contains some

statements and interpretations which are open to discussion, the effort of the authors to arrange and interpret the enormous volume of patent information which appeared in such a short period of time on stereospecific polymerization, deserves to be highly praised. The book by Gaylord and Mark represents today the only comprehensive and authoritative source of information for all those who want quick and reliable information on this new branch of macromolecular chemistry, which is still in full and rapid development.

Giulio Natta

July 2, 1959

February 9, 1959

Prof. H. Mark
Director of Research Institute
Polytechnic Institute of
Brooklyn
333, Jay Street
Brooklyn 1, N.Y. U.S.A.

177/mb

Dear Professor Mark,

I hope you have duly received through Ing.Otto=lenghi of the Chemore Corp., the galley proofs of the Gaylord-Mark book and the brief forward I wrote, following to your kind request.

I wish to know if you think it is suitable or, otherwise, if you would rather prefer that I more emphasize the importance of your book and the relevant place it will undoubtedly hold in the field of macromolecular chemistry.

In that case, please let me know your wishes and I will gladly make those changes you will suggest.

Cordially yours,

G. Natta

28 gennaio 1959

Prof. H. Mark
Polytechnic Institute of
Brooklyn
333 Jay Street
Brooklyn 1, New York

108/mb

Caro Prof. Mark,

Le ho inviato oggi per posta aerea le bozze dei capitoli VII - XII Gaylord -Mark. Non ho potuto inviarle prima perchè parte di esse, essendo state inviate per posta normale, sono giunte con notevolissimo ritardo, probabilmente a causa dei ritardi postali per le feste natalizie.

Ho proposto piccole aggiunte sopratutto per quanto riguarda le proprietà fisiche dei polimeri, gli stereo=blocchi, i catalizzatori contenenti solo titanio, ecc.

Per quanto riguarda la distinzione tra po=limerizzazione anionica e cationica, mi sono permesso di aggiunge=re che la presenza di gruppi vinilidenici terminali è distinti=vo per la polimerizzazione anionica delle alfa-olefine (propi=lene) mentre nel caso dell'etilene, come già osservato da Ziegler sulla poliaddizione dell'etilene all'alluminio trie=tile, si ha gruppi terminali vinilici anche nella polimeriz=zazione anionica dell'etilene.

Perciò le osservazioni della colonna R4-12, in fondo, sarebbero in contrasto con quanto sopra indicato. Ho aggiunto alcuni dati sull'influenza dei diversi agenti di chain transfer sul peso molecolare del polipropilene.

Molti cordiali saluti.

G.Natta

P.S. - Ricevo il Suo gentile telegramma e La ringrazio di cuore per la Sua presentazione della mia conferenza al 15th Annual Technical Conference of the Society of Plastics Engineers e per le gentilissime parole con le quali Lei ha voluto accompagnarla. Il successo di cui Lei mi parla è certamente dovuto alla Sua brillante presentazione.

Ann

August 24, 1959

Dr. Herbert Morawetz,
Polytechnic Institute of
Brooklyn,
333, Jay Street,
Brooklyn 1, New York.

our ref. 931/lv

Dear Dr. Morawetz,

I have been encharged by Professor Natta who is still on holiday, to inform you that he will not be able to meet you in Milan on October 19th and 20th. Professor Natta, in fact, will not be in Milan at the time. He is truly sorry to miss the opportunity of seeing you.

Anyway you will be able to visit our Institute accompanied by a co-worker of Professor Natta. When arriving here, please, ask either for Professor Mazzanti or Dr. Crespi.

With best regards.

The Secretariat

WARREN L. McCABE
333 JAY STREET
BROOKLYN 1, NEW YORK

June 18th, 1959

Dr. G. Natta
Instituto de Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milan
I T A L Y

A I R
M A I L

Dear Dr. Natta:

Much to my regret, the details of my itinerary have piled up to such a point that I now find that I will unable to visit your colleagues at the Istituto de Chimica Industriale del Politecnico as planned on the 7th of July.

I do wish to thank you sincerely for your kindness in inviting me to stop by as we pass through Milan and it is with great regret that I find that we can not do so.

It is my hope that on the occasion of a future trip to Italy, we might meet again.

Very sincerely yours,

Warren L. McCabe

WARREN L. MC CABE

WLMC:k.

Spiacente
~~Spero avere~~
altra ho con
al Pol con
il Prof

WARREN L. McCABE
333 Jay Street
~~22 LAYMAN STREET~~
BROOKLYN 1, NEW YORK

Amerie
Polytechnic

May 26th, 1959

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano
I T A L Y

A I R
M A I L

Dear Dr. Natta:

Professor Overberger has shown me your very kind answer to his letter of May 11th. I am very sorry indeed that you are to be absent from Milan on July 7th, as I would have enjoyed very much renewing our acquaintance.

I shall look forward, however, to meeting your co-workers and visiting the Polytechnic. Mrs. McCabe and I shall be registered at the Grand Hotel Duomo.

Very sincerely,

Warren L McCabe

WARREN L. MC CABE

WLMC:k.

cc: Dr. Overberger

Telefonare Cavallerini

Riunione Comm. X

X Indirizzo Pagani ed altri

G/A
t/c

POLITECNICO MILANO

Milano, 21 maggio 1959

Signor
Prof. Giulio NATTA
s e d e

Caro Natta,

Con riferimento alla Tua lettera del 15 maggio u.s. relativa alla visita di questo Politecnico da parte del Prof. WARREN L. MCCABE, ti comunico che sarò ben lieto di riceverlo.

Cordiali saluti.

IL RETTORE

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

DEPARTMENT OF CHEMISTRY

TRIANGLE 5-6412

May 25, 1959

Professor Giulio Natta
Instituto De Chimica Industriale
Del Politecnico
Piazzo Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

This letter is to introduce you to Dr. Heimei Yuki who has been a Research Associate with me for the past year and is part of the Department of Chemistry, Faculty of Science, Osaka University.

Dr. Yuki will be leaving my laboratory to return to Japan and is stopping in England and Italy. He is very eager to have an opportunity to meet you and visit your research laboratories in Milano. He expects to be in Milano on June 12. He will be in London during the period of June 4th - June 7th, at the following address and can be reached there:

Mitsui & Company, Ltd. (London Branch)
2nd floor - Bucklersbury House 83
Cannon Street
London E. C. 4, England

If it is not too much trouble, I wonder if it could be arranged for him to visit your research laboratories. He is an excellent chemist with wide background experience in the protein and synthetic polymer field. Could you please write to him at the London address.

Sincerely,

C. G. Overberger - Head
Department of Chemistry

cgo-h
airmail

CC - Mitsui & Company, Ltd. (London Branch)

POLYTECHNIC INSTITUTE of BROOKLYN
~~99 LIVINGSTON STREET • BROOKLYN 1, NEW YORK~~
333 JAY STREET • BROOKLYN 1, NEW YORK

ULSTER 5-8000

OFFICE OF ADMINISTRATIVE DEAN

June 29th, 1959

Professor G. Natta
Istituto de Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

This is to acknowledge receipt of your letter of June 22nd, 1959, addressed to Professor Walter L. McCabe.

As you know, Dean McCabe is traveling abroad and he is expected to return from Europe in the early part of August. Your letter will be brought to Dean McCabe's attention upon his return to the office.

Yours truly,

Miss Lillian M. Kapelnick

Lillian M. Kapelnick
Secretary to
Dean Walter L. McCabe

/M.

Ans.

22 th, June 1959

Professor Warren L. McCabe
Polytechnic Institute of
Brooklyn,
333, Jay Street,
Brooklyn 1, N.Y.

our ref.754/lv

Dear Professor McCabe,

thank you for your letter of June 18. I was very sorry to hear that you will not be able to visit our Polytechnic. I communicated it to Professor Cassinis, Head Master of this Polytechnic, who charges me to tell you all his regret to miss the opportunity of meeting you.

With my best regards,

G. Natta

Ant.

May 21, 1959

Prof. W.L.McCabe
Administrative Dean,
Polytechnic Inst.of Brookly
333, Jay Street,
Brooklyn 1, New York.

our ref. 636/lv

Dear Prof. McCabe,

Prof. Overberger communicated me that you will come to Milan on the 7th of July. I am sorry that previous engagements compel me to go to England at that time; there= fore I shall miss the chance of meeting you.

Anyway my collagues will be extremely pleased to show you my Institute and the other laboratories you are interested in.

My kindest regards,

G.Natta

P.S. Prof. G.Cassinis, Head Master of our Polytechnic, wrote me that he will be very glad of welcoming you here.

June 3, 1959

Prof. C.G.Overberger, Head
Dept.of Chemistry
Polytechnic Institute of
Brooklyn,
333, Jay Street,
Brooklyn 1.N.Y.

our ref. 659/lv

Dear Professor Overberger,

Your letter of May 15, reached my office a few days ago, but I answer only now having been in the country-side for a very short time of rest.

Dr.Yuki will be welcome to my Institute on June 12, and I have already sent him a few lines of invita= tion.

With my best regards,

G.Natta

May 21, 1959

Prof. C.G.Overberger, Head
Dept. of Chemistry
Polytechnic Inst.of Brooklyn
Brooklyn 1, New York.
(U.S.A.)

our ref. 605/lv

Dear Professor Overberger,

thank you very much for your letter of May 11. Owing to an unlucky coincidence I shall not be in Milan to meet Prof. McCabe when he arrives on the 7th of July. In fact previous engagements compel me to go to England at that time.

Anyway my co-workers will be very glad to show Prof. McCabe my Institute and the other parts of the Polytechnic he may be interested in.

With my best regards,

G.Natta

15 maggio [illegible]

Prof. C. Cassinis
Rettore del Politecnico
S e d e

p.c. Prof. De Lorchi

ns.rif. 510/eg

Caro Cassinis,

ti invio copia di una lettera che ho ricevuto dal Prof. Overberger, capo del Department of Chemistry del Politecnico di Brooklyn, nella quale mi annuncia la visita a questo Politecnico del Prof. Warren L. McCabe, il quale ha la carica di Administrative Dean di tale Politecnico.

Non so a quale carica corrisponda il titolo di Administrative Dean e ti pregherei di farmi sapere se tu o De Lorchi desiderate conoscerlo.

Molti cordiali saluti.

G. Natta

All/

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

ULSTER 5-8000

DEPARTMENT OF CHEMISTRY

May 11, 1959

AIR MAIL

Professor Giulio Natta
Instituto De Chimica Industriale
Del Politecnico
Piazzo Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

I should like to ask your help in obtaining an invitation for Professor Warren L. McCabe, Administrative Dean of the Polytechnic Institute of Brooklyn, to visit you and your laboratories at Milano. If possible, he would be interested in also visiting the Montecatini laboratories.

Professor McCabe is an outstanding Chemical Engineer, well known for his textbook in this country. He is one of the top officials of the Polytechnic Institute of Brooklyn, being equivalent to the highest Vice President in an industrial company. He will be in Milano on Tuesday, July 7.

You have always been so kind to us in the past that I hesitate to ask your indulgence in this matter; however, I am anxious to have Dean McCabe visit laboratories in the Milano area.

With kindest personal regards,

Sincerely,

C. G. Overberger, Head
Department of Chemistry

CGO:eh

4th December 1959

Prof. A. Tobolsky
Princeton University
Frick Chemical Laboratory
Princeton N.J. (U.S.A.)

our refs. 1237/eg

Dear Professor Tobolsky,

With great pleasure I am forwarding to you, through the courtesy of Mr. Lucini of Chemore Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytecnic Institute on stereospecific polymerization and stereoregular polymers.

This collection may also prove useful to you as a compact reference, since the numerous papers were, up to now, rather scattered in many publications.

With my best personal regards,

I am,

Sincerely yours,

G. Natta

June 3, 1959

Prof. Ernst Weber,
President,
Polytechnic Institute of
Brooklyn,
333, Jay Street,
Brooklyn 1. N.Y.

our ref.660/lv

Dear Professor Weber,

coming to the Institute to-day, after a short time of rest in the country, I have found your kind letter of May 5 which reached Milan just on the 29th.

I thank you warmly for your kind invitation which I regret not to have been able to accept. As my secretary already wrote you I was to give up my coming to the United States for the Fifth World Petroleum Congress.

Hoping to find another opportunity of meeting you soon, I send you my deepest thanks and my best regards,

G.Natta

May 29, 1959

Ernst Weber, President
Polytechnic Inst.of Brooklyn
333, Jay Street,
Brooklyn 1, New York.

our ref.660/lv

Dear Professor Weber,

We have received only to-day your kind letter of May 5th.

Unfortunately Professor Natta could not come to New York to participate to the Fifth World Con= gress, owing to health troubles which compelled him to go and spend a few days in the country.

We thank you very much for your very kind invitation to visit you and the new Polytechnic. We are sure that Professor Natta regrets not to have come and seen you and your laboratories.

He will personally write his thanks to you as soon as he arrives in Milan.

With our best thanks and regards,

The Secretariat.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

OFFICE OF THE PRESIDENT

May 5, 1959

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I have noted with great interest the program of technical papers for the Fifth World Petroleum Congress which will convene in New York May 30th to June 5th, 1959, and also that you will participate in the program.

May I extend a cordial invitation to you, while you are in New York, to visit us here at the new Polytechnic. I know that both Dr. Herman Mark, head of our Polymer Chemistry Department, and Dr. Charles Overberger, will be very pleased to show you our chemistry facilities, and to chat with you informally on many other aspects of our Chemistry Department.

Within the past year, we have instituted a Ten Year Accelerated Development Program which will add greater stature to Polytechnic's place in science and engineering education. This development is both in academic and physical areas and will make the Polytechnic truly a great center of science and engineering culture. I hope that I may have the opportunity of telling you firsthand of our plans for the future.

I know, too, that our hard-working Mayor Wagner and his City administration are making plans to welcome the members of the Congress and see that they enjoy, to the fullest, the facilities of our great City.

I know you will enjoy your visit here.

Sincerely,

Ernst Weber

Ernst Weber
President

cc: The Honorable Robert F. Wagner
Mayor of the City of New York

Radiation Research Corporation

1114 FIRST AVENUE • NEW YORK 21, NEW YORK
TEMPLETON 8-2513

14 April 1959

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo de Vinci 32
Milano, Italia

Dear Mr. Natta:

Thank you for your prompt reply to my inquiry regarding samples of your new fluorinated polystyrenes. In order to perform electrical measurements it is most convenient to have the material in the form of a thin disc which can be as thin as .002". The disc can be circular or square and should be approximately 1 square inch in area.

If such samples are unavailable, please tell me in what form you can provide this material. Your cooperation in this matter is greatly appreciated.

Sincerely,

RADIATION RESEARCH CORPORATION

Stanley Grand

Dr. Stanley Grand
Director of R & D

SG:dr

Giancarlo
Grazie per compiacenza

Radiation Research Corporation

1114 FIRST AVENUE • NEW YORK 21, NEW YORK
TEMPLETON 8-2513

2 April 1959

Dr. Giulio Natta
Politechnic Institute
Milano, Italia

Dear Dr. Natta:

May we please have a ~~reprint~~ of your article entitled "Stereospecific polymerization and isotactic polymers of vinyl aromatic monomers" printed in Makromol. Chem., Vol. 28, pages 253-61, 1958, in English. / 291

We are now conducting a study of dielectric materials and their response to radiation treatment, and would like to include in our tests some samples of the new fluorinated polystyrenes in some thin form, on the order of .02" or less.

0,5 mm

We hope you will be able to help us obtain some of this material. In return, we would be happy to make available to you a summary of the electrical measurements and extent of radiation damage. We look forward to an early reply.

Thank you in advance for your kind attention to this request.

Yours very truly,

RADIATION RESEARCH CORPORATION

Stanley Grand

Dr. Stanley Grand
Director of Research & Development

SG:dr

In risposta:
che siano specificate di che
disporre di polistirol fluorurati
con che lastra [illegible] si
segnato

REEVES Brothers, Inc.

1071 Avenue of the Americas (at 41st Street) • New York 18, New York

PEnnsylvania 6-8600 • Teletype: New York 1-111

Ref. Correction
[illegible]

May 12, 1959

Professor Dr. Giulio Natta
Isituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32,
Milano, ITALY

Dear Professor Natta:

Esposti

I have read your letter of May 4 with great interest and I thank you for your information and advice and I also thank you for sending me copy of a reprint of your recent paper describing the new crystalline form you found on polypropylene.

With regard to the degree of crystallinity which I mentioned in Figure VII of my paper for the density 0.92, I based this estimate on information I received on one hand from the laboratories of the Celanese Corporation of America and on the other hand, of the Esso Research and Engineering Company.

The Celanese Corporation determined the crystallinity by X-rays in correlation with the density. They also determined the insolubility in heptane and they found, for their determination, a relationship between crystallinity and insolubility. I understand from your previous papers that the heptane insolubility is indicative for the degree of isotacticity and that this degree is not necessarily correlated with crystallinity. They made these experiments on polypropylene of various intrinsic viscosity, this means for various molecular weights. In our range of intrinsic viscosity of between 3 and 4.5 they found for a density of 0.92 practically 100% insolubility. They also made infra-red spectra.

On the other hand, Esso Research determined the crystallinity by X-ray diffraction and they found by extrapolation a degree of crystallinity of approximately 90% for the density of 0.92.

These are the figures on which I based my own estimate of 90 to 95%.

This is indeed higher than the figure you kindly gave me in your letter. It seems, however, that this degree of crystallinity depends also upon the molecular weight which we estimate to be 300 to 350,000 for a i.V. of around 3.0.

My paper, copy of which I sent you, is not yet in print and I can still make adjustments. Would you be so very kind to advise me how to proceed and whether you should think that I should change my figure of 90 to 95 to a lower one.

I also thank you for your advice regarding the fact that atactic polypropylene has no pronounced melting point. I will make the correction in my text accordingly.

Thanking you again for your great kindness, I am with my best personal regards,

Sincerely yours,

Victor L. Erlich

Victor L. Erlich

VLE:ls

America: Reeves Brothers

May 4,1959

Dr.Victor L. Erlich
Reeves Brothers, Inc.
1071 Avenue of the Americas
New York 18, New York. (U.S.A.)

our ref.530/lv

Dear Mr.Erlich,

I apologize most sincerely for answering your letter of April 7 only now.

a Contadini

I thank you for the paper you sent me, which you had presented before the Textile Research Institute, New York.

I think you have been informed that the Montecatini showed fabrics and hosiery made of pure polypropylene of mixed with wool and cotton, at the Fiera di Milano (Trade Exhibition) on April 12. Those products have obtained a great success. Some reports have been presented at the Exhibition of Milan on the days dedicated to Chemistry (April 15-17) by myself and by technicians of the Montecatini. As soon as they are printed, I shall take care of sending you their reprints.

Under separate cover I send you a reprint, you may be interested in, concerning a different crystalline form (smectic) of the polypropylene.

With my best regards;
Sincerely yours,

G.Natta

P.S. I notice on page 6 line 5 of your report that you consider the atactic form of the polypropylene as low melting. I wish to inform you that most people, who concern themselves with polymers, do not consider the existence of a melting temperature for the atactic products which are not crystalline. They have just a second order transition temperature or a softening temperature, but they have not a real melting point.

In the figure No. VII of your paper it is showed that a

REEVES Brothers, Inc.

1071 Avenue of the Americas (at 41st Street) • New York 18, New York

PEnnsylvania 6-8600 • Teletype: New York 1-111

Our ref. 530/LV

April 7, 1959

Professor Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano,
ITALY

Dear Professor Natta;

Please find here enclosed a copy of a paper which I presented before the Textile Research Institute in New York several days ago. Because I mentioned you at several occasions, you may be interested to have a look at this paper.

This gives me a good opportunity to present you with my personal regards and good wishes.

Sincerely yours,

Victor L. Erlich

Victor L. Erlich

VLE:ls
Enc.

Ricevuto in visione e lettura
G.N.

UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

The William Albert Noyes Laboratory

December 19, 1958

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
32 Milano, Italy

Dear Prof. Natta,

I have to apologize you my long silence since my first letter. Thank you very much for receiving my desire of visiting your laboratory.

I am very happy that I can tell you the exact date of my arrival along with the greeting of Christmas. I am going to leave here towards the end of March and will visit you on Wednesday, April 29. I doubt I could spend more than a day there but I wish I could stay there a little longer.

Hoping to get your kind instruction there, I send you my best wishes for Christmas and the New Year.

Sincerely,

Yukio Shimura

Yukio Shimura

CONSULTING ENGINEER
TELEPHONE BRIDGEPORT, AMHERST 8-2749

HERBERT R. SIMONDS
STEPNEY, CONNECTICUT

September 22, 1959

Dr. Giulio Natta
Istituto Di Chimica Industriale Del Politechnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Dr. Natta:

This acknowledges your letter of September 10th.

I am sorry, of course, that you feel you haven't time to write a chapter for Volume #2 of the "Source Book of the New Plastics".

Under separate cover, I sent you a complimentary copy of Volume #1; and after you have looked this over, I hope you will agree at least to send me news of new materials developed by Istituto di Chimica Industriale for use in Volume #2. This copy need not be in until June, 1960, which should give you plenty of time.

Yours sincerely,

Herbert R. Simonds

Herbert R. Simonds

HRS/ccw

on future Volume

REINHOLD

430 Park Avenue
New York 22, New York
MUrray Hill 8-8800

HERBERT R. SIMONDS, Editorial Consultant
Stepney, Connecticut
Telephone: Bridgeport, AMherst 8-2749

Via Air Mail

July 21, 1959

rispondere settembre

Dr. Giulio Natta
Milan Polytechnic Institute
Milan, Italy

Dear Dr. Natta:

In a recent letter from Mr. Theodore O. J. Kresser, I was delighted to learn that you will take an interest in his forthcoming book on "Polypropylene". We have great hopes for this book and believe Mr. Kresser will do a good job, as he did on his previous book for us entitled "Polyethylene".

It now occurs to me that a rather different type of book, not in this series, but addressed to research people and technical men in industry generally, on the subject of "Stereospecific Polymerization" might be very welcome in about a year; which, of course, would mean that the book should be started soon. You would be the logical author or editor. If this idea appeals to you, I will be glad to write you in greater detail about my thinking on the subject.

Incidentally, my book (containing your chapter) which is entitled "Source Book of the New Plastics" is due for publication very shortly, and I am entering a notation that a complimentary copy is to be sent to you the minute it is off the press.

I will look forward with interest to hearing from you.

Yours sincerely,

Herbert R. Simonds

Herbert R. Simonds

HRS/ccw

cc to: Mr. Theodore O. J. Kresser
Technical Service Representative
Spencer Chemical Co.
Orange, Texas

SOCIETY OF PLASTICS ENGINEERS, INC.
NATIONAL EXECUTIVE OFFICES
65 PROSPECT STREET, STAMFORD, CONNECTICUT
FIRESIDE 8-7528
TWX – STAM – 75

2 copie

June 4, 1959

non è stato più visto per consiglio di Istituto
Vedi Chemure

Professor Giulio Natta
Polytechnic Institute of Milan
Milan
Italy

Dear Professor Natta:

Allow me to preface this letter by extending to you the gratitude of this Society, and of all those who attended our 15th Annual Technical Conference in New York City last January, for the very excellent technical paper which you prepared, "Five Years of Progress in Stereospecific Catalysis Research." It is my hope that by this time you yourself have heard some of the fine comments concerning the ANTEC, particularly your paper.

Your experience in the field of plastics, especially with regard to its technical and educational aspects, clearly indicates your interest in the future growth of this comparatively new sphere of engineering.

We sincerely believe that the interests and the activities of men such as yourself are greatly complemented by the endeavors of the Society of Plastics Engineers. The vast number of technical conferences and publications which the Society has sponsored over the years consistently reassers its primary purpose: The dissemination of information in the fields of research, design, development, production, and utilization of plastics materials.

To promote and augment the continued expansion of plastics engineering, SPE has encouraged its Sections to place special emphasis upon the interests of their student members. The result has been an amazing increase in student membership. Our first Workshop, held at Lowell (Massachusetts) Technological Institute and sponsored by the Eastern New England Section, received so gratifying a response that other Sections are now undertaking the sponsorship of similar functions.

SOCIETY OF PLASTICS ENGINEERS, INC.

It is with this parallel of interests of yourself and the Society in mind that I now wish to extend to you a most cordial invitation to become affiliated with this rapidly expanding technical organization. For your review, I am taking the liberty of enclosing our membership prospectus which may be of some assistance to you in determining the scope and the goals of the Society of Plastics Engineers.

Genuinely convinced that your association with SPE will prove rewarding, not only to yourself, but also to the entire plastics industry, I look forward to the pleasure of your reply.

Most sincerely yours,

Lewis A. Bernhard

Lewis A. Bernhard
Manager, Administrative Department

LAB:rr
Enclosure

STANFORD RESEARCH INSTITUTE
MENLO PARK, CALIFORNIA

DEPARTMENT OF CHEMISTRY

November 12, 1959

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Now that I have returned from my extended trip to Europe, I want to thank you for the opportunity to visit your Institute and to discuss with your colleagues there the fine work which you and they are doing. Dr. Danusso was especially hospitable and helpful.

If there is any way in which either I or the Stanford Research Institute can be of service to you, please do not hesitate to call on us, either here or through our office in Zürich, at 37, Pelikanstrasse.

I regret very much that I was unable to visit you in the mountains, after leaving Milano. I just did not have the extra time that it would have taken.

Let me express the hope that you are recovering your health and will soon be all well again.

Very sincerely yours,

Maurice L. Huggins

Maurice L. Huggins, Director
Physical and Inorganic Chemistry

MLH/cl

Milano 28.8.57

Pr.le Sig.r Vuscovani.

Le pregherei di rispondere alla lettera di Huggins (non so se sia rimasto sul mio tavolo o le altre prese Corradini) gentilmente, dicendo che sarei lietissimo di incontrarlo a Milano.

Risponda Lei come segretario scusando del ritardo perchè i mesi di Agosto e Settembre ci obbligano per le vacanze e che io ritorno non ritornerò che dopo il 8 Settembre

Rubato saluti

W

P.S. Dica al Parolo di venire mercoledì sera alle 11 a prendermi alla stazione (treno del Bernina)

23rd April 1959

Dr. Stanley Grand
Director of R & D
Radiation Research Corporati
1114 First Avenue
NEW YORK 21
NEW YORK U.S.A.

our ref. 474/sg

Dear Dr. Stanley Grand,

Referring to your letter of the 14th April I am sending you the following samples :

1. polymer from a mixture of isomer fluorostyrene
2. poly-meta-fluorostyrene
3. poly-para fluorostyrene
4. poly orto-fluorostyrene

These samples have been previously quenched and are, therefore, amorphous. It is possible to tranform these samples (except for the poly-meta-fluorostyrene) into crystallin materials by annealing at about 200°. The melting temperature for crystallin materials is more than 250°.

Acknowledgments on the results of your tests would be very much appreciated.

Sincerely

G. Natta

1.

9th April 1959

Dr. Stanley Grand
Director of Research &
Development
Radiation Research Corporat
1114 First Avenue
NEW YORK 21 N.Y. U.S.A.

ns. rif.434/eg

Dear Dr. Grand,

Thank you for your letter of the 2nd April.

I am sending you (°) the reprint in which you were interested.

As for the samples of the new fluorinated polystyrenes we would like you to inform us about the smallest sizes you require as, at present, we have availability of these materi only in a very small quantity.

Hoping to hear from you very soon, we remain,

Sincerely yours

(°) under separate cover

(G. Natta)

June 4, 1959

Dr. Victor L. Erlich,
Reeves Brothers, Inc.
1071 Avenue of the Ameticas
(at 41st Street)
New York 18, New York.

our ref.608/lv

Dear Dr. Erlich,

I send you under separate cover some reprints of our papers demonstrating how our crystallinity determinations were carried out.

There is a good correlation between our X-Ray and the density data; the degree of crystallinity should be of about 80%, for a density of 0.92.

A high degree of isotacticity, determined by insolubility tests, correlates, in general, with a high degree of crystallinity (but not a crystallinity of 100% !) which, however, also depends on the molecular weight and thermal history of the sample.

I think your datum: 90-95, should be lowered to about 80%.

With my best regards,

G.Natta

STANFORD RESEARCH INSTITUTE

EUROPEAN OFFICE

PELIKANSTRASSE 37, ZURICH 1

CABLE:
STANRESZUR ZURICH
TELEPHONE: ZURICH
27 73 27; OR 27 81 21

18 August 1959

Professor G. Natta
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your kind letter of June 4 and for reserving a room for my wife and me at the Grand Hotel Continental.

I was told recently that you have been ill. I was very sorry to hear this, but express the hope that by now you have completely recovered your health.

If, for any reason, you should wish to get in touch with me before my visit to Milano, I can be reached either through this Zürich office or (Sept. 18 and 19) in care of Prof. Bezzi, Via Sografi 15, Padova.

I am looking forward to the chance to meet you in Milano or Wiesbaden or both. If, however, you are unable to be in Milano at the time of my visit, Sept. 21, I shall take advantage of your offer to visit your Institute, nevertheless. lunedì

With kindest regards,

Cordially yours,

Maurice L. Huggins

Maurice L. Huggins, Director
Physical and Inorganic Chemistry

Responding the your letter
never heard. Wiesbaden
you can have a
better room a Milan il 21 S.
Damusso
et al
Mr Huggins.

667251
635187
635190
635190

5

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

DEPARTMENT OF CHEMISTRY

May 19, 1959

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your kind letter of April 14th. Since I wrote you in March my plans have changed somewhat. My wife and I now plan to drive from Venice to Milan on Sunday, September 20th. On the following day I should like very much to visit your institute, if I may.

Will you kindly reserve a room for us in a hotel in Milan for the nights of September 20th and 21st? A bath with the room is not essential.

I trust that the change in my schedule will not inconvenience you or your collaborators. I am looking forward very much to this visit and hope that you, as well as Prof. Corradini and Danusso will be there at that time.

297.105-6

Best regards.

Cordially yours,

Maurice L. Huggins

Maurice L. Huggins, Director
Physical and Inorganic
Chemistry Section

MLH/cl

Approuvé
Jean Marvin

Scrivere Ufficio

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

DEPARTMENT OF CHEMISTRY

March 25, 1959

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Milano, ITALY

Dear Professor Natta:

I have left the Kodak Research Laboratories and have joined the staff of Stanford Research Institute. Next fall I am planning to spend about two months in Europe attending the meetings in Munich and Wiesbaden and visiting many of the major research centers in the interest of this institute's European office. We would like to keep in touch with research progress in these centers.

This will give me an opportunity, I hope, to visit you and your institute. According to my tentative itinerary, I plan to be in Milano with my wife on Wednesday, September 23rd, and Thursday, September 24th. Do you expect to be there at that time? I would like very much to meet you and to discuss isotactic polymerization with you.

Kindly give my regards to Professor Danusso whom I had the pleasure of meeting in Prague in 1957.

Sincerely yours,

Maurice L. Huggins

Maurice L. Huggins, Director
Physical and Inorganic
Chemistry Section

MLH/cl

(proprietà polimeri in soluzione)

Danusso

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N.Y.

TELEPHONE
OXFORD 7-0600

CABLE ADDRESS
"STAUFCHEM"

March 24, 1959

Professor G. Natta
Institute di Chimeca Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Mr. Natta
refer
e respondence

Dear Professor Natta:

As promised earlier, arrangements have been made to send to your attention two samples of our new titanium trichloride.

The composition of both these samples is approximately three parts titanium trichloride, one part aluminum chloride. The sample designated lot No. 1-A has already been treated by us to increase its activity. Sample lot No. 1-B is the crude untreated reaction product. Our polymerization reactivity tests on propylene with lot No. 1-A gave a polymer yield of 345 to 450 grams per gram titanium trichloride per 3-1/2 hours. The activity of lot No. 1-B is approximately 30 to 100 grams of polymer in a similar period.

Enclosed is a description of the propylene polymerization technique used. This technique was developed as a quality control check on production lots of our hydrogen reduced titanium trichloride. A molar ratio of 2.6 triethylaluminum to titanium trichloride, or one gram of $TiCl_3 \cdot AlCl_3$ to 1.22 ml. of triethylaluminum, is the only modification used from the technique attached.

The new untreated titanium trichloride will be sold for the same price as our regular hydrogen reduced titanium trichloride. The treated product will be priced slightly higher. Additional quantities of the new product are available upon request.

After you have had an opportunity to evaluate the samples, we would appreciate learning the results of your tests.

If we can be of any additional assistance, please do not hesitate to contact us.

Very truly yours,

Cy Baldwin

C. C. Baldwin, Jr.

CCB,JR:mag
Enc.

cc: Mr. V. E. Astrologo - Chemore Corp.

TEXAS BUTADIENE & CHEMICAL
CORPORATION
440 BANK OF THE SOUTHWEST BUILDING
HOUSTON 2, TEXAS

Telephone
CApitol 7-3253
Cable Address
TEXBUCHEM

March 20, 1959

Professor Guilio Natta
c/o Instituto di Chimica Industriale
del Politechnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I refer to your kind lines of February 6 which you wrote me to Paris on butene-1. I happen to be in Houston at the refinery of Texas Butadiene & Chemical Corporation, and I have arranged that a 20 pound sample will go out to you at the above address by next week.

The quality of our material has since been improved. Enclosed you will find a typical analysis of our present production which we hope will give you interesting results in your tests. You will notice that the butadiene content has been reduced to 0.3%. Phillips' licensees of the low pressure ethylene process have used our material in large quantities in the copolymerization process and have voiced no objection to the butadiene content which we now have in the product.

We look forward to hearing from you again, and with kind regards.

Sincerely yours,

Alexander R. Marx

ARM:mk

Enclosure

THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PENNSYLVANIA

COLLEGE OF CHEMISTRY AND PHYSICS
DEPARTMENT OF PHYSICS

June 18, 1959

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Professor Natta:

I have recently received funds for an investigation of the solution properties of synthetic polyelectrolytes and polyampholytes (using light scattering, ultracentrifugation, etc.) and wish to find a postdoctoral interested in carrying out such studies. The salary is $4800/yr. with one month vacation. I would appreciate it if you would let me know of anyone who might be interested or have them write me directly.

Sincerely yours,

A. E. Woodward

A. E. Woodward
Assistant Professor of Chemistry

AEW/f

May 4,1959

a polypropylene with a density 0.92 has a crystallinity of the 90/95%. I should like to know how that crystalli= nity was determined, since a product with a density 0.92 cannot have a crystallinity higher than 80/85%.

In the figure No.VIII, I notice a shrinkage of the polypropylene of the 10/15% which is superior to the one we have observed on well oriented and highly crystalline products.

January 8, 1959

Mr. Yukio Shimura
University of Illinois
Urbana, U.S.A.

1395/mb

Dear Mr. Shimura,

I have received your letter of December 19.

Unfortunately, I doubt whether I shall be in Milan during the time you set aside for visiting my Institute. It may be that I shall have to go to the States exactly in that period, so that I shall not be able to see you. You may anyway come here and some coworker of mine will gladly see you around my Laboratories.

I appreciated very much your kind wishes for Christmas and the New Year which I reciprocate.

Yours sincerely,

Prof. G. Natta

Oct. 14, 1959

Dr. Herbert R. Simonds,
Stepney, Connecticut

our ref. 1041/lv

Dear Dr. Simonds,

Being Professor Natta in Germany, we acknowledge receipt of the "Source Book of the New Plastics", Volume 1, you kindly sent him.

We wish to thank you: Professor Natta will write you personally as soon as he comes back.

With best regards,

Sincerely yours,

The Secratariat

10th September 1959

Mr. Herbert R. Simonds
Editorial Consultant
Stepney, Connecticut
U.S.A.

our refs.882/eg

Dear Mr. Simonds,

I apologize for answering your kind letter of July 21 only now, and I thank you for the kind proposal you made me to write a chapter of your book entitled : "Source Book of the new Plastics".

I am sorry to inform you that, at the moment, all the engagements I have previously taken, do not allow me to devote myself to the job you proposed to me.

My best regards.

G.Natta

Stanford

Nov. 20, 1959

Dr. M. L. Huggins, Director
Physical and Inorganic Chem:
Stanford Research Institute,
Menlo Park, California

our ref. 1175/lv

Dear Dr. Huggins,,

this morning, arriving in Milan after my long staying abroad, I found your kind letter of November 12.

I am very sorry too not to have met you during your visit to my new Institute. I also regret that you could not come and see us in the mountains. Anyhow I hope we shall find another opportunity of meeting each other.

With my best regards.

G. Natta

Aug. 28, 1959

Prof. M. L. Huggins, Director
Physical & Inorganic Chemi
Stanford Research Institut
European Office,
Pelikanstrasse 37,
Zurich 1.

our ref. 929/lv

Dear Professor Huggins,

from a letter I got from Professor Natta a few minutes ago, I learn that he has somewhat changed his schedule for the month of September.

Therefore, he will be extremely pleased to meet you in Milan on the 21st of September.

At present Professor Natta is abroad, but will be back to Milan on Sept. 8.

Professor Natta charges me to tell you all his kindest regards.

Best regards.

Sincerely yours,

p. the Secretary

26 th August 1959

Prof. M. L. Huggins, Director
Physical & Inorganic Chemist
Stanford Research Institute
European Office,
Pelikanstrasse 37,
Zurich 1.

our ref. 929/lv

Dear Professor Huggins,

thank you for your letter of August 18.

I shall be very pleased to meet you at the Wiesbaden Conference next October, whereas, I am afraid, I shall not be in Milan on September 21. Anyway some co-workers of mine have already been charged to accompany you in your visit to My Institute. When arriving here, please, ask either for Professor Danusso, or Dr. Moraglio.

With my best regards.

G. Natta

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET · NEW YORK 36, N.Y.
MURRAY HILL 7-8220

MAURYCY BLOCH
PRESIDENT

OCTOBER 20, 1959

DR. GIULIO NATTA
MONTECATINI
SOCIETA GENERALE PER L'INDUSTRIA
MINERARIA E CHIMICA
VIA F. TURATI, 18
MILANO, ITALY

DEAR DR. NATTA:

I HAVE NOTED FROM THE SCHEDULE OF OUR DR. NORMAN G. GAYLORD THAT HE WILL BE VISITING WITH YOU ON THURSDAY AND FRIDAY, OCTOBER 22ND AND OCTOBER 23RD.

DR. GAYLORD WILL GIVE YOU COMPLETE INFORMATION ON THE PLANS OF OUR POLYMER DIVISION AND WILL ADVISE ON THE STRUCTURE OF OUR COMPANY, INCLUDING THE APPOINTMENT OF PROFESSOR HERMAN F. MARK TO OUR BOARD.

I TAKE THE LIBERTY THIS LETTER AFFORDS TO ENCLOSE A PICTURE WHICH I WOULD BE MOST OBLIGED IF YOU WOULD SIGN AND RETURN THAT SAME MAY BE DISPLAYED IN THE LIBRARY OF OUR NEW POLYMER LABORATORIES.

ON THE OCCASION OF YOUR NEXT VISIT TO THE UNITED STATES, I DO TRUST THAT YOU WILL GIVE BOTH DR. GAYLORD AND MYSELF AN OPPORTUNITY OF MEETING WITH YOU AND SHOWING YOU OUR FACILITIES.

SINCERELY,

Maurycy Bloch

MB/RB
ENCL.

Chiedere se può mandarmi una copia —

POLYMER DIVISION

96 ROANOKE AVENUE
NEWARK 5, NEW JERSEY

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET • NEW YORK 36, N.Y. • MURRAY HILL 7-8220

December 28, 1959

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I was very pleased to learn from your letter of December 10th that you have no objection to the participation of Dr. Dall'Asta in "Resins, Rubbers and Plastics." I will now correspond directly with him on further details.

I hope that we shall meet soon at some meeting in the United States or Europe.

Very truly yours,

Norman G. Gaylord

NGG:mb

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET · NEW YORK 36, N.Y.
MURRAY HILL 7-8220

DR. NORMAN G. GAYLORD
VICE PRESIDENT
RESEARCH AND DEVELOPMENT
POLYMER DIVISION

Marmoni

November 10, 1959

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Prof. Natta:

I would like to thank you for giving me the opportunity to visit and lecture at the Politecnico on October 23rd. I was very sorry that you were unable to be there, but I can assure you that your colleagues showed me the greatest hospitality. Actually I undertook to present this lecture with considerable trepidation, since it takes either a foolish person or a brave one to enter the lion's den to present material on stereo-regular polymers at the fountainhead of such knowledge.

During my visit I spoke to Dr. Mazzanti regarding participation in an endeavor which I think will be of great service to all polymer chemists. At this time I would like to review for you the information and question that I put to Dr. Mazzanti.

On January 1, 1960, I am assuming the editorial responsibility for the "Resins, Rubbers and Plastics" Abstract Service, published by Interscience Publishers. This particular service has been offered for many years and, in fact, in the present year volume XIII of series II is being issued.

In order to prepare for an even more usable abstract service than before, I am attempting to establish a group of competent abstractors in addition to those previously used. The function of the Abstract Service, as you may already know from examination over the past years, is to present abstracts of selected articles on polymer chemistry which have appeared in various journals throughout the world. These abstracts are quite different than those appearing in "Chemical Abstracts," since they cover anywhere between two and four pages each and include pertinent tables and charts from the original article. Due to the world-wide coverage, the original articles appear in English, French, German, Italian, Japanese, Russian, etc.

Due to the fact that so much material of interest to polymer chemists is now appearing in the Italian journals and particularly in the journals which are not readily accessible to polymer chemists outside of Italy, it appears to me that a great service can be done for these chemists if abstracts of such articles would be presented in "Resins, Rubbers and Plastics." You and your colleagues should have your work brought to the attention of non-Italian workers more promptly than is now possible. It is unquestionably disturbing to you to read of work which is original on the part of the author but which actually duplicates work carried out in your laboratories and published earlier in journals not available to the author of the presumably "new" work.

I proposed to Dr. Mazzanti that it would be highly desirable if articles in polymer chemistry appearing in Italian journals were abstracted by some member of your staff so that competent as well as timely presentation could be made. Dr. Mazzanti indicated that if you approved, Dr. Dall'Asta might be interested in doing the abstracting. Dr. Dall'Asta indicated to me that he would be willing to do so, subject to your approval of his participation in this effort. The pay for preparing an abstract would be $3 per abstract.

I would appreciate learning your thoughts on this matter and, if you feel it is a worthwhile endeavor, then I would go into further details as to the preparation and submission of abstracts directly with Dr. Dall'Asta.

Respectfully yours,

Norman G. Gaylord

NGG:mb

cc: Dr. Gino Dall'Asta

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF PHYSICS
BERKELEY 4, CALIFORNIA

Am

2 XI 59

Cordialissimi ringraziamenti a Lei
e alla Signora e auguri
Suo
Emilio Segrè

UNIVERSITY OF DENVER
COLORADO SEMINARY

Denver Research Institute
University Park, Denver 10, Colorado

Federico DeLuca
2318

13 July 1959

Doctor G. Natta
ISTITUTO DI CHIMICA INDUSTRIALE DEL POLITECNICO
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Doctor Natta:

This is to express my sincere appreciation for your letter of 3 July 1959 in prompt reply to my recent request concerning atactic and isotactic polymers.

I should appreciate very much receiving the profferred 10 gram samples of pure, laboratory-produced atactic and isotactic polypropylene and polystyrene. In addition, if it may be considered not too great an imposition on my part, I should welcome samples of approximately 2 Kilos each of the industrial-scale samples of both the atactic and isotactic polypropylene mentioned in your letter.

Naturally, we shall pay all incurred shipping charges from Milano, Italy to Denver, Colorado. Incidentally, I have been advised by our purchasing office concerning the details of shipping the material to Denver, Colorado.

In order to avoid undue delay and unnecessary fees and expenses, the material should be shipped via AIR FREIGHT and routed by Pan American Airways from Milano, Italy to New York City, New York and thence by United Airlines from New York City, New York to Denver, Colorado. The package or packages should bear the following designations:

FORWARD TO DENVER CUSTOMS FOR CLEARANCE and SAMPLES FOR SCIENTIFIC RESEARCH, NO COMMERCIAL VALUE. Please ship the samples, C.O.D., to the following address:

The University of Denver
Receiving Department
2300 Buchtel Boulevard
Denver, Colorado
U.S.A.

ATTN: Mr. A. T. Sprigg

May I thank you again for your prompt reply and your interest in our project.

Sincerely yours,

Don N. Gray

Don N. Gray, Ph.D.
Research Chemist

DNG/hkm

UNIVERSITY OF DENVER
COLORADO SEMINARY

Denver Research Institute
University Park, Denver 10, Colorado

26 June 1959

Prof. Dr. G. Natta
Istiueto di Chimica Industriale
del Politecnico
Milano, Italia

Dear Dr. Natta:

We are engaged at this institute in a program concerned with the evaluation of isotatic and atatic polymers from various chemical and physical standpoints.

We are very interested in obtaining the following polymers:

isotatic	poly(propylene)	
atatic	poly(propylene)	
syndiotatic	poly(propylene)	
isotatic	poly(styrene)	

We would of course pay the air mail charges on about 500 gram samples of these items.

Thank you,

Don N. Gray

Don N. Gray, Ph. D.
Research Chemist

DNG:mr

UNIVERSITY OF DENVER
COLORADO SEMINARY

Denver Research Institute
University Park, Denver 10, Colorado

16 September 1959

Prof. Dr. G. Natta
ISTITUTO DICHIMICA INDUSTRIALE DEL POLITECNICO
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Doctor Natta:

The samples described in your recent letter have been received. Thank you for the samples and your interest in our project. Only if it is no inconvenience on your part, I should appreciate learning the molecular weights of these materials and the method (or methods) by which they were determined.

Thank you again for your generosity and assistance.

Sincerely;

Richard D. Stacy

Richard D. Stacy, Ph.D.
Research Chemist

RDS:lc

UNIVERSITY OF DENVER
COLORADO SEMINARY

Denver Research Institute
University Park, Denver 10, Colorado

Your ref: 794/lv

20 August 1959

Prof. Dr. G. Natta
ISTITUTO DI CHIMICA INDUSTRIALE DEL POLITECNICO
Piazza Leonard Da Vinci, 32
Milano, Italy

Dear Doctor Natta:

Since our last letter of 13 July 1959, we have not as yet received the samples of the various polymers which you so kindly offerred. Please consider this letter as simply a check as to whether you did indeed receive our last letter. Enclosed you will find a copy of this letter.

Sincerely,

Richard D. Stacy

Richard D. Stacy, Ph.D.
Research Chemist

RDS/hkm
Enclosure

THE UNIVERSITY OF TEXAS
M. D. ANDERSON HOSPITAL
AND TUMOR INSTITUTE

TEXAS MEDICAL CENTER
HOUSTON 25

October 1, 1959

Professor Dr. G. Natta
Istituto di Chimica Industriale
Politecnico di Milano
Milano, Italy

Dear Professor Natta:

I would appreciate very much receiving a few characteristic photoprints of the X-ray diffraction patterns of the isotactic polymers.

The material is intended as illustrations in our (with Dr. Straumanis) "Short Textbook of Colloid Chemistry" 2nd edition, now in preparation.

Since the isotactic polymers will be only briefly desribed, the chief purpose of the illustrations will be to show the high degree of crystallinity in these polymers, and it would not matter which particular examples will be presented.

I am writing to you being aware of your fundamental contributions in this field. Also I would be grateful for reprints of your very recent papers (1958 and 1959).

Hoping for a kind response, I am,

Sincerely yours

Bruno Jirgensons

mandare mbrs -
Nuovo Cimento
ricevuto 21/6

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NORTHERN UTILIZATION RESEARCH AND DEVELOPMENT DIVISION
PEORIA, ILLINOIS

May 5, 1959

AIR MAIL

Dr. G. Natta
Instituto di Chimica Industriale
Del Politecnico
Plazza Leonardo Da Vinci 32
Milan, Italy

Dear Dr. Natta:

It was a pleasure to receive your letter of April 23 (485) and to learn of your lack of activity on the polymerization of vegetable oil derivatives.

During the past three years I have had the pleasure, as well as being in charge, of reviewing our contract research on polymerization of various agricultural products. The professor directly in charge of this work is Dr. C. S. Marvel of the University of Illinois and some of the materials which he has been investigating with triisobutyl aluminum-titanium chloride (3-1) catalyst are alloöcimine, long chain 1-olefins, etc. Some years ago I took my degree under Dr. Marvel and held a post doctorate fellowship under him on vinyl polymers. Thus, I would be pleased to visit your laboratory during my stay in Milan.

11-12/6

If you are too busy and are not in a position to take on additional work, perhaps I could conserve your time by conferring with Dr. A. Quilico.

Very truly yours,

J. C. Cowan, Chief
Oilseed Crops Laboratory

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NORTHERN UTILIZATION RESEARCH AND DEVELOPMENT DIVISION
PEORIA, ILLINOIS

April 15, 1959

AIR MAIL

Dr. G. Van Natta
Professor of Chemistry
Polytechnic Institute
Milan, ITALY

Dear Dr. Van Natta:

As you know, there will be a meeting of the International Association of Seed Crushers held in Cannes, France, on June 2-5, 1959. I shall attend that meeting and should like to come and see you in Milan on June 11 or 12.

During this visit with you, I should like to discuss the polymerization of vegetable oil derivatives and particularly problems in research on such polymerizations on which you might work on under Public Law 480. Please let me know if this time is convenient.

Very truly yours,

J. C. Cowan, Chief
Oilseed Crops Laboratory

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
EASTERN UTILIZATION RESEARCH AND DEVELOPMENT DIVISION
600 EAST MERMAID LANE
PHILADELPHIA 18, PENNSYLVANIA

July 13, 1959

Prof. Dr. Guilio Natta
Instituto Chimica Industriale
del Politecnico
Milano, Italy

Dear Prof. Dr. Guilio:

I plan to be in Italy in the early part of September and I would like very much to visit your Institute and confer with members of your staff.

I am a member of the staff of the Eastern Regional Research Laboratory of the United States Department of Agriculture, where I direct a program of research on the fundamental physical and mechanical properties of polymeric substances. Being well aware of the important work in this field that is being carried out in your research laboratories, I would not like to miss this most wonderful opportunity of visiting you and of talking to some members of your staff.

I would appreciate very much learning whether such a visit would be convenient for you on Wednesday or Thursday, September 2 or 3. As I am planning to travel by car, any instructions that you may have for reaching your Institute would be of great value to me.

I hope the necessary arrangements can be made. I am looking forward to meeting you and your associates.

Very truly yours,

Lee P. Witnauer

Lee P. Witnauer
Principal Physical Chemist

Prof. no
venire

Grep

June 4, 1959

Prof. Maurice L. Huggings,
Director,
Physical and Inorganic Chemist
Section,
Stanford Research Institute,
Menlo Park, California.

our ref. 647/lv

Dear Prof. M. Huggins,

I apologize for answering your letter of May 19 only now: but it was rather difficult to book a room for you in a Milan hotel, and I succeeded in only yesterday. I communicate you that you shall be registered at the "Grand Hotel Continental", Via Manzoni, Milano.

If I am in Milan on September 21, I shall be extre= mely pleased to meet you and to show you my institute: other= wise I shall charge my colleagues to welcome you here.

With my best regards,

G.Natta

April, 14th 1959

Ar.

Mr. Maurice L. Huggins,
Director of Physical and
Inorganic Chemistry Section
STANFORD RESEARCH INSTITUTE
MENLO PARK - CALIFORNIA
U.S.A.

404/pn

Dear Mr. Huggins,

I received your kind letter of March 26.

As to your coming to Italy next fall I should be very pleased to meet you. I hope to be able to be in Milan on the 23rd and the 24th September, but as for the utmost part of the second fortnight of September I shall be out of Milan I cannot assure you that I shall be able to meet you at that time. Anyway my collaborators prof. Corradini and prof. Danusso will accompany you with pleasure in a visit to our Institute.

Prof. Danusso thanks you very much for your kind regards which he reciprocates.

Hoping to have the pleasure to meet you, I remain

Yours sincerely

G. Natta

Ann.

May 14, 1959

C.C.Baldwin Jr.
Stauffer Chemical Co.
380 Madison Avenue
New York-17- N.Y.

our ref. 395/ lv

Dear Mr. Baldwin,

With this letter, I wish to communicate you some results we achieved in the tests of the propylene polymerization with the compounds $3TiCl_3AlCl_3$, quoted as 1a and 1 b.

Our tests were accomplished at a temperature of 75°C with a constant pressure of the monomer of 5 atm. in presence of triethylaluminum, using n-heptane as solvent.

The tests carried out with the coumpound No. 1a and with the ratios $AlR_3/TiCl_3$ from 2 to 5, have given polyperization rates varying from 10 to 15 g/g.h. The fraction of isotactic polymers not extractable in boiling n-heptane varies from the 65 to the 77 per cent.

From the tests accomplished with the compound No. 1a and with the ratios $AlR_3/TiCl_3$=2 we observed a polymerization rate of the order of 40 g/g.h, and obtained polymers containing fractions not extractable in boiling n-heptane of about 65-70%.

Using the ratio $AlR_3/TiCl_3$=5, the polymerization rates lowered to 30-32 g/g.h, whereas the fraction of isotactic polymers reached about the 75%.

In general, it seems possible to conclude that this product is always much less stereospecific than the most typical samples of $TiCl_3$ Stauffer that we have been examining during these last months, even if, sometimes, it gives much higher polymerization rates.

In our tests, however, we did not reach those polymerization rates of 100 g/g.h, you quoted in your letter of March 24.

With my best regards,

G. Natta

Ken:

(Texas)

[illegible] 1959

Ann.

July 31, 1959

Prof.A.E.Woodward
Assistant Professor of Chemistry
College of Chemistry and Physics
The Pennsylvania State University
University Park - Pennsylvania - USA

Ref.No.750/rl

Dear Professor Woodward,

I apologize for answering your kind letter of June 18 only now. My delay is due to the fact that I wanted to look for a chemist who could accept your kind proposal.

I am sorry to inform you that I did not find a postdoctoral specialized in the fields you require.

With kindest regards.

Sincerely yours,

G.Natta

25 Giugno 1959

Chiar.mo Prof.A.Nasini
Direttore Istituto Chimico
Università di
TORINO - Via M.d'Azeglio 48

Rif.N.758/rl

Caro Nasini,

Ho ricevuto una lettera dal Prof.A.M.Woodward, della Pennsylvania State University, di cui ti invio copia nel caso che possa interessare qualcuno dei tuoi collaboratori.

Ti, sarei grato se mi potessi far sapere qualcosa in modo che possa rispondere a Woodward.

Molti cordiali saluti.

G.Natta

All/

Consegnato la a Polvani
la Nasini

23rd Nov. 1959

Maurycy Bloch, President
The Western Petrochemical Co.
Two West 45th Street,
New York 36, N.Y.

our ref. 1130/lv

Dear Dr. Bloch,

thank you for your letter of October 20 which I got with some delay, having spent a long time abroad.

According to your wishes, I return you the photograph signed by myself.

As that picture looks quite nice, I would very much appreciate receiving a copy of it, if it does not trouble you too much.

With my best regards and thanks,

G. Natta

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

CENTRAL EXPERIMENT STATION

4800 FORBES STREET
PITTSBURGH 13, PENNSYLVANIA

Pontre Ercoli

July 2, 1959

Air Mail

Professor G. Natta
Istituto Di Chimica Industriale Del Politecnico
Piazzo Leonardo Da Vinci, 32,
Milano, Italy

Dear Professor Natta:

Thank you for your letter of June 25th. I am glad that you like the paper.

I am grateful to you for pointing out the omission of reference to work done in your laboratory. Please add, as you have suggested, the following sentence after the sequence of reactions on page 29: "An analogous sequence of reactions was first proposed by Natta, Ercoli, Castellano and Barbieri (50) who also examined from a kinetic standpoint the alternative hypothesis of a preliminary interaction between the olefin and cobalt hydrocarbonyl to form a hydrotricarbonyl complex with the evolution of carbon monoxide (51)." Please do not hesitate to modify this sentence or to make any other minor modifications in the paper as you see fit.

JACS 76, 4041 (1955)

Chim. Ind. 37 6 (1955)

We owe much to your laboratory for its many fine contributions to metal carbonyl and carbon monoxide chemistry which have helped us tremendously. It is an honor to have our paper printed in La Chimica e l' Industria.

I have one favor to ask. Would you please write the authors in the following way: H. W. Sternberg, R. Markby and I. Wender.

With best personal regards,

Sincerely,

Irving Wender

Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research

Oct. 30, 1959

sheet 2

It was a pleasure for me to read your manuscript in advance and to realize how much you have progressed in the unificating interpretation of the chemical problems of this fascinating field of chemistry.

With my kindest regards,

Yours sincerely,

R. Ercoli

July 31, 1959

Prof.Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research
Central Experiment Station
U.S.Dept.of the Interior
Bureau of Mines - Region V
4800 Forbes Street
PITTSBURGH 13 - Pennsylvania

Ref.No.806/rl

Dear Professor Wender,

I wish to inform you that your work has already been translated; we shall send you copy of the definite Italian work at the beginning of September, owing to the fact that at present we are all going on holiday.

With my best regards.

Sincerely yours,

Giulio Natta

Oct. 30, 1959

Prof. Irving Wender, Chief
Organic Chemistry Section,
Branch of Coal-to-Oil Resear
Central Experiment Station,
U.S. Dept. of the Interior,
Bureau of Mines, Region V,
4800 Forbes Street,
PITTSBURGH 13 - Pennsylvania

Dear Professor Wender,

I send you, under separate cover, the Italian translation of your article : "Metal Carbonyls and Related Compounds as Catalytic Intermediates in Organic Synthesis".

The text was translated by Dr. Rossana Lamma and revised by myself.

Some doubts subsist on pages 21-22 of our translation: in fact, in eq. 55 no hexandiol is presented as a reaction product while somewhere before, hexandiols have been announced. As butandiol is reported in eq. 55 and not before, most likely, you would refer only to the latter and to pentanediol. On page 22, no equation describing the formation of pentanediol is added to those describing the valerolactone formation (eq. 57, a) and b)). Perhaps it would be advisable to spend some words indicating that the open chain intermediates with added CO (as $(CO)_4CoCO(CH_2)_4OCo(CO)_4$) may enter an hydrogenolysis reaction of the previously illustrated types (eq. 25). Equation 35 is lacking and not reported in your manuscript. Perhaps we could change the subsequent numbers. On page 30, we introduced the suggested statement on our work on the "Oxo"kinetics.

A few days ago, the translation was sent to "La Chimica e l'Industria".

Please, let us know whether you like to have the text somehow modified.

The Editor required us a summary of fifteen/twenty lines. We hope you can have it written, otherwise we shall manage to write it ourselves.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

CENTRAL EXPERIMENT STATION

4800 FORBES STREET
PITTSBURGH 13, PENNSYLVANIA

Air Mail

June 18, 1959

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Perlamil
con Carli

Dear Professor Natta:

We are enclosing a copy of a manuscript entitled "Metal Carbonyls and Related Compounds as Catalytic Intermediates in Organic Syntheses," by H.W. Sternberg and I. Wender; this is a review of our recent work. This review was originally prepared for the International Conference on Coordination Chemistry held in London last May; it will eventually be published in a book which gives the main lectures at the London meeting. The London Chemical Society has released this review for prior publication in La Chimica e L'Industria but has asked that the following footnote be included: "To be published by the Chemical Society as Special Publication No. 13."

There are two reasons which influenced us to send this particular review paper to you. (1) We consider it complete and up to date, and (2) this paper has already been approved for publication by the Bureau of Mines.

If you feel that you would rather not include the suggested footnote, please do not hesitate to let us know. We will rewrite the paper and send it back to you as soon as possible.

Sincerely yours,

Irving

Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

CENTRAL EXPERIMENT STATION

4800 FORBES STREET
PITTSBURGH 13, PENNSYLVANIA

May 14, 1959

Air Mail

Professor G. N. Natta
Instituto Di Chimica Industriale
del Politenico
Piazza Leonardo da Vinci, 32
Milano, Italy

Ref. [illegible] for [illegible] in $Cr(CO)_6$ - chromium hexacarbonyl

Dear Professor Natta:

During my visit to your laboratories in Milano, you asked me to submit a paper reviewing our work on metal complexes and catalysis for publication in an Italian journal. We are ready to send you such a paper but must have a formal request from you for such a manuscript. Would it be possible for you to send us a letter requesting such a review article? Any form would be satisfactory for such a request but I am taking the liberty of suggesting a letter which would read approximately as below.

"We have been very interested in the work of the Bureau of Mines on the Fischer-Tropsch and related synthesis, especially in the approach taken by your group involving the study of catalysis by homogeneous metal complexes. There is much interest in Italy in this ~~work~~ ~~and~~ I would like to have an article reviewing your recent work ~~leading to the postulation of a new mechanism for the Fischer-Tropsch synthesis~~ for publication in an Italian journal. Your article would be translated by us into Italian and published in the La Chimica e l'Industria. We would be most grateful if you could submit such a paper."

Please feel free to change any or all of this suggested letter.

I am sending Dr. Ercoli samples of molybdenum and tungsten hexacarbonyls under separate cover.

Actually [illegible] the work done by us and your associates at the Bureau of Mines is considered in our country of outstanding importance.

2 lettere — ufficiale / personale

I still cherish memories of my day with you and your group and look forward to visiting Milano once more.

With kindest personal regards.

Sincerely yours,

Irving Wender

Irving Wender, Chief
Organic Chemistry Section
Branch of Coal-to-Oil Research

Wyandotte Chemicals Corporation

wyandotte · michigan

RESEARCH DIVISION

September 22, 1959

Professor Giulio Natta
Instituto di Chimica del
Politecnico di Milano
Milano, Italy

Dear Professor Natta:

It has been three years since I had the pleasure of meeting you at the Gordon Conference at Colby College, New Hampshire. I am planning on an extensive trip to Europe which will also take me to Milan, Italy. The purpose of my trip is to explore new polymer developments which may be of interest to Wyandotte Chemicals Corporation. Wyandotte is not exactly a newcomer in the polymer field, having been the first commercial manufacturer of block copolymers as represented by the Pluronics and Tetronics which are block copolymers of ethylene and propylene oxide. Within the last few years Wyandotte has gained considerable prominence through the manufacture of polyethers for the manufacture of polyurethanes, particularly for the preparation of flexible and rigid foams. In addition, urethane coatings, elastomers and plastics were developed based on these polyethers.

I would appreciate having an opportunity of meeting with you and with members of your staff to talk about new polymer developments both in the United States and in Italy. I am also investigating possibilities of having Wyandotte Chemicals Corp. sponsor research in some Universities prominent in polymer research. Due to your many outstanding contributions in polymer chemistry, particularly stereospecific polymers, the Polytechnic Institute of Milan is one of the best known polymer institutions in the world.

I am planning to be in Milan on November 2, and would be most obliged if you could let me know before October 2 if this date is convenient for a visit with you at the Polytechnic Institute. Should this letter arrive too late for a reply by October 2, I would appreciate it if you could write to Wiesbaden, Hotel Nassauer Hof, where I am planning to attend the IUPAC Symposium on Macromolecules from October 12 to 16.

Looking forward to seeing you in Milan, and with best regards.

Sincerely yours,

K. C. Frisch

Kurt C. Frisch
Director of Polymer Research

fm

PHELPS DODGE COPPER PRODUCTS CORPORATION

300 PARK AVENUE NEW YORK 22, N. Y.

July 29, 1959

Professor G. Natta
Montecatini
Via F. Turati, 18
Milano, Italy

Dear Professor Natta:

The enclosed discussion covers at the end some of our discussions on why polyethylene is unsatisfacotry for extra high voltage insulation.

I am thinking of preparing a paper on the molecular structure which we need for synthetic insulations which have to withstand extra high voltage.

I hope you will be interested.

Sincerely,

Kenneth S. Wyatt

Kenneth S. Wyatt

KSW:re
Enclosure.

MONTECATINI

SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

ANONIMA - CAPITALE VERSATO L. 100.000.000.000

MILANO

SETTORE PROGETTI E STUDI

Si prega indirizzare a: / Please reply to: Montecatini-SEPS, Via Turati, 18, Milano (Italy)

Phone: 6333 - Cables: GABBROPROGETTI - MILANO

Telex: MI-085 - GABBRO (begin message with: SEPS)

MILANO, 24 Dicembre 1959.

Preg.mo Signore
Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico di
M i l a n o.

Egregio Professore,

Sua 22. XII.

Gli isolanti elettrici solidi di materia organica impiegati nella tecnica hanno tre categorie di impieghi :

1. In luogo degli isolanti ceramici impiegati nelle correnti forti : fino ad ora gli isolanti organici che si sono affermati sono i manufatti di bakelite (spesso con inserzione di fibre o carta) e di resine epossidiche (spesso con carica di quarzo).
   Sono essenziali rigidità e resistenza meccanica.
   Non credo che si riuscirà a sostituire i materiali ceramici nelle applicazioni per esterno.

2. In luogo della gomma, dove occorre flessibilità.

3. In luogo del quarzo, della mica o dell'allumina sinterizzata nelle applicazioni dell'alta frequenza. E' essenziale un basso fattore di perdita.

Le manderó fra alcuni giorni quanto mi chiede nella Sua lettera.

Cordialmente :

Bartolomeo Orsoni

* Or/sl.

Fervidi auguri di Buon Natale e di felice Anno Nuovo

Best Wishes for a merry Christmas and a happy New Year

PIRELLI
SOCIETÀ PER AZIONI

Dr Wyatt

Chiar.mo
Prof. Dr. Ing. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
MILANO

Milano, 23 dicembre 1959.

Caro Giulio,

ti ringrazio per avermi inviato il rapporto di Mr. K. Wyatt sulla sua discussione a riguardo di un cavo in polietilene 35 kV che ti ritorno in allegato.
Tale rapporto l'avevo già ricevuto direttamente a suo tempo e per quanto non sia del tutto d'accordo con quanto dice tuttavia ci sono molte cose esatte.

La risposta alla tua domanda, vale a dire a riguardo del prezzo massimo che potrebbe essere pagato per un isolante ideale, penso la potrai trovare in un rapporto che ho ricevuto in questi giorni pure da Mr. Wyatt che si riferisce ad una sua proposta per una ricerca di un isolante particolarmente adatto per cavi ad altissime tensioni. Ti allego copia di tale rapporto.

Coi più cordiali saluti.

Palandri

(G. Palandri)

PHELPS DODGE COPPER PRODUCTS CORPORATION

300 PARK AVENUE NEW YORK 22, N. Y.

December 3, 1959

Your Ref. 916/eg

Professor G. Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano

Dear Professor Natta:

Your letter of November 25th was very pleasing since it offered a way to improve our synthetic insulating materials for extra-high voltage.

I am convinced that the polymerized parafins and olefins are the wrong answer for high electric stresses of the order of 200 to 400 volts per mil. They are right for communications cables and for low and medium voltage cables where the maximum electrical stresses are not more than 75 volts per mil. In fact, I think polyethylene is the worst possible structure devised for EHV. I am preparing a statement on the subject which will make all these things clear. This will be sent to you in a short time.

In the meantime, I am enclosing a letter which I sent out to a few utility engineers discussing the problem. I am trying to raise a million dollars from the electrical utilities for tailoring a molecule and synthesizing an insulating material for EHV. Of course, we shall try to modify existing materials.

We should like to work with you in this regard or perhaps, even at a later date, to pass the whole problem over to you as certain chemical companies here are making themselves very difficult.

Sincerely yours,

Kenneth S. Wyatt

Kenneth S. Wyatt

KSW:jk
Att.

PHELPS DODGE COPPER PRODUCTS CORPORATION

300 PARK AVENUE NEW YORK 22, N. Y.

December 10, 1959

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

At Philadelphia we had a chat about chemical structure and the development of a material suitable for Extra High Voltage insulation.

I have had a talk with some of the utilities here suggesting that they should put up some money and do research. The two attachments represent a crude beginning.

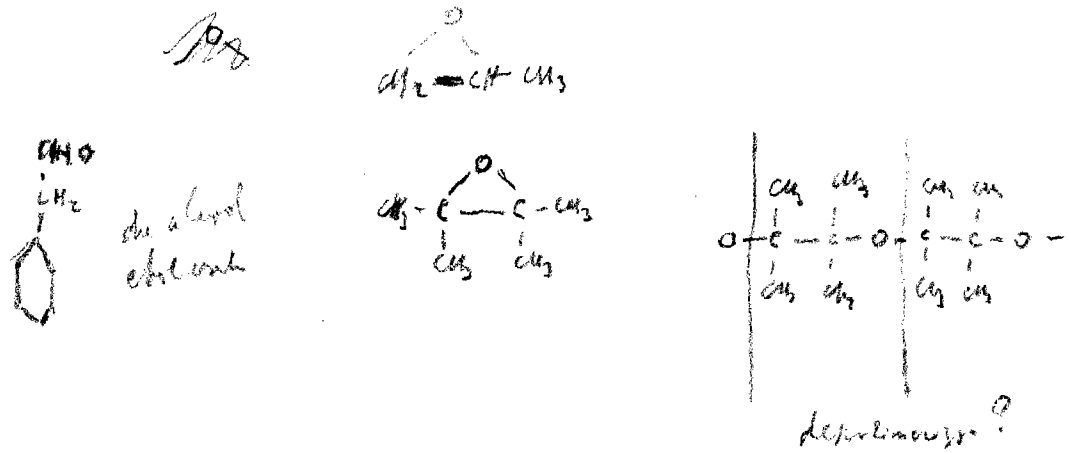
I should appreciate your critical comments.

Sincerely,

Kenneth S. Wyatt

Kenneth S. Wyatt

KSW: jk
Att.



23rd April 1959

Dr. J.C. Cowan Chief
Oilseed Crops Laboratory
United States Department
of Agriculture
Agricultural Research Serv
Peoria Illinois
U.S.A.

Our ref. 435/ac

Dear Dr. Cowan,

I have received your letter of the 15th April informing me about your next visit to Milan on June 11 or 12.

I wish to point out to you that I never worked on polymerization of vegetable oil derivatives beforewards. However, as our actual work keeps us very busy, at present, I am afraid I cannot start on a new branch of activity.

With my best regards.

G. Natta

July 3, 1959

Am.

Don N. Gray, Ph.D.
Research Chemist
University of Denver,
Denver Research Institute,
University Park,
Denver 10, Colorado.

our ref. 794/lv

Dear Mr. Don N. Gray,

thank you for your letter of June 26, concerning your request of samples of isotactic, atactic polypropylene and of isotactic polystyrene.

We are able to send you samples of about 10 gr of pure atactic and isotactic polypropylene which were produced in our laboratory. Instead we can send you bigger samples of polymers which were produced in an industrial scale, in which both the isotactic and the atactic polymers contain stereoblock polymers.

I would like to know whether you like better to receive the pure products obtained in our laboratory or bigger quantities of commercial products.

As regards the isotactic polystyrene, I can send you only samples produced in laboratory.

Looking forward to receiveing your answer on the subject, I send you my best regards.

G. Natta

9/9/59

Am

Richard D. Stacy, Ph.D.
Research Chemist,
University of Denver,
University Park,
Denver 10, Colorado.

our ref. 950/lv

Dear Dr. Stacy,

with regard to your letter of Aug. 20, 1959 I wish to inform you that the required samples of:

-isotactic polystyrene,
-Polypropylene: ether extractable fraction,
-Polypropylene: heptane non extractable fraction,

have been shipped on the Sept. 8, 1959, following the praxis you kindly suggested us.

Being sorry for the delay with which I send you the above-mentioned samples, I send you my best regards.

Sincerely,

Giulio Natta

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
EUROPEAN REGIONAL RESEARCH OFFICE
AMERICAN EMBASSY, ROME, ITALY

le 3 juin, 1959

Monsieur le Professeur Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan

Cher Professor Natta,

Me référant a la conversation que j'avais eu le plaisir d'avoir avec vous lors de ma visite à votre Institut en date du 18 février 1959 au sujet de notre programme de recherches en vertu de la loi Americaine P.L. 480, j'ai l'honneur de vous informer que Monsieur le Dr. John C. Cowan, Directeur du Laboratoire des Graines Oléagineuses du "Northern Utilization Research and Development Division" sera heureux de vous rencontrer lors d'un court sejour qu'il fera prochainement en Italie. Je l'accompagnerai durant son voyage à Milan où il compte visiter quelques institutions et nous aimerions discuter avec vous des possibilities de collaboration dans notre programme. Si cette date vous convient, nous pourrons vous rendre visite dan l'après-midi du jeudi 11 ct.

Dans l'attente du plaisir de vous rencontrer, je vous prie d'agréer, Cher Professeur, l'assurance de ma considération distinguée.

Clément R. Shabetai
Conseiller Technique

CRS:aw

May 12, 1959

J.C.Cowan, Chief
Oilseed Crops Laboratory,
U.S. Dept.of Agriculture,
Agricultural Research Service
Peoria, Illinois, U.S.A.

our ref. 581/lv

Dear Dr. Cowan,

I received your letter of May 5, 1959. I am looking forward to meeting you during your visit to Milan and I shall be very pleased to show you my Institute.

Should I not be in Milan during that period, one of my assistants will be encharged of entreating you.

With my best regards,

G.Natta

Dec. 10, 1959

Dr. Norman G. Gaylord
Vice President
Research and Development
Polymer Division,
The Western Petrochemical C
Two West 45th Street
New York 36, N.Y.

our ref. 1173/lv

Dear Dr. Gaylord,

I answer to your kind letter of Nov. 10 only to-day, because I came back to Milan just a few days ago.

I was sorry not to be able to meet you when you held your interesting communication in our Institute; anyway I hope I shall find another opportunity of meeting you soon.

I had a talk with Dr. Dall'Asta on his eventual co-operation to "Resins, Rubbers and Plastics" and I inform you that I have no objection to this enterprise. However I believe that an accurate review of all the works published in Italia magazines in the field of high polymers, should constitute too hard a labour for one person only. Thus, if necessary, Dr. Dall'Asta might be helped by other technicians who work in our Institute, and, among them, I can suggest Dr. Bergardini. For further details on the matter, you may write directly to Dr. Dall'Asta.

With my kindest regards,

G. Natta

Ann.

June 25 1959

Irving Wender, Chief
Organic Chemistry Section
United States Dept. Interior
Bureau of Mines - Region V
4800 Forbes Street
Pittsburgh 13 - Pennsylvani
U.S.A.

our reference 756/eg

Dear Doctor Wender,

I have received your letter of June 18th with the enclosed manuscript and I thank you very much for your kindness in sending me such a good paper to be published in this country.

La Chimica e l'Industria will publish the Italian translation perhaps in the September issue and will also include the recommended footnote. The translation will be made by Dr.Lamma and supervised by Prof.Ercoli.

Your review appears to me and to my associates to be an excellent work, of great usefulness and timeliness. Excuse me if I venture to inform you that it was somewhat surprising for us to find, at page 29, the "Martin's mechanism" of the hydroformylation presented without any reference to the strictly analogous mechanism previously proposed by us in the spring '54 (J.Ann.Chem.Soc. 76,4049 (1954). This mechanism and the alternative possibility of an interaction between cobalt hydrocarbonyl and olefin to form anhydrotricarbonyl complex as in your equation 76 (pag 31), were discussed in a more detailed way in the January 1955 issue of La Chimica e l'Industria (37,6 (1955).

We realise that a review does not maintain a hystorical viewpoint but it would be more satisfactory for us to find some records recalling our contribution. Perhaps at page 29, after the sequence of the reactions, you could add a phrase such as :

"an analogous sequence of reactions was firstly proposed by Natta, Ercoli, Castellano and Barbieri (5°) who also examined, from a kinetic standpoint, the alternative hypothesis of a pre-

continued ..

June 25th 1959

from page 1.

liminary counteraction between the olefin and the cobalt hydro-trimethyl-olefin complex with evolution of carbon monoxide (51)."

Obviously the suggested addition may be freely and largely modified. However, if you do not agree with our opinion on this particular subject, please do not hesitate to disregard the above consideration. In this case the review will be translated exactly in its present form.

With my sincere thanks nad best regards,

G.Natta

May 19, 1959

Irving Wender, Chief
Organic Chemistry Section,
Branch of Coal-to-Oil Res.
U.S. Dept. of the Interior,
4800 Forbes Street,
Pittsburgh 13, Pennsylvani

our ref. 620/lv

Dear Professor Irving Wender,

Thank you very much for your letter of May 14 and for the samples of molybdenum and tungsten hexacar= bonyls you sent to Prof. Ercoli.

Prof. Ercoli would like to know if you received the samples of chromiumhexacarbonyl he sent you in November 1958.

Following your advice I enclose here the formal request for the paper reviewing your work on metal complex= es and catalysis.

I fully agree with the letter you suggested which has been very useful to us.

Thanking you for your kindness, I send you my best regards,

G. Natta

Encl.

May 19? 1 959

Prof. Irving Wender, Chief
Organic Chemistry Sect.
Branch of Coal-to-Oil Res.
U.S.Dept. of the Interior,
4800 Forbes Street,
Pittsburgh 13, Pennsylvania

our ref. 620/lv

Dear Prof. Irving Wender,

We have been very interested in the work of the Bureau of Mines on the Fischer-Tropsch and related synthesis, especially in the approach taken by your group involving the study of catalysis by homogeneous metal complexes. There is much interest in Italy in this field of chemistry. Actually the work done by you and by your associates at the Bureau of Mines is considered of outstanding importance, also in our country. Thus I would like to have an article reviewing your recent work for publication in an Italian journal. Your arti= cle would be translated by us into Italian and published in "La Chimica e l'Industria".
We would be most grateful if you could submit such a paper.

Thanking you in advance, I send you my best regards,

G.Natta

29 settembre 1959

Dr.Kurt C.Frisch,
Wyandotte Chemicals Corporati
Director Of Polymer Research,
Wyandotte - Michigan

nmr ref.1042/lv

Dear Dr.Frisch,

I was charged by Professor Natta who is absent from Milan, to inform you that he is very sorry not to be able to welcome you in Milan on November 2. In fact, most probably, he will be abroad at that time.

Anyway, Professor Natta will certainly meet you in Wiesbaden during the IUPAC Congress, where he will go in any case.

Kindest regards from Professor Natta,

Sincerely yours,

The Secretariat

copia anche a Wiesbaden

22nd July 1959

Lee P.Witnauer
Principal Physical Chemist
United States Department of
Agriculture - Agr. Research Ser
600 East Mermaid Lane
Philadelphia 18, Pennsylvania
U.S.A

our references 849/eg

Dear Mr. Witnauer,

Referring to your letter of July 13, I am very sorry to inform you that I shall not be in Milan on Sept. 2 and 3. Anyway I already charged a co-worker of mine to welcome you at your arrival and to show you my Institute.

As you will reach the Institute by car, I advise you to inquire about the Politecnico, Piazza Leonardo da Vinci 32, where it will be easy for you to find the Institute of Industrial Chemistry.

I am sorry to miss the chance of meeting you.

With my best regards,

G.Natta

B O Z Z A

Milano, 26.1.1959

Professor Barnett F.Dodge

Dear Professor Dodge,

La ringrazio della sua gentile lettera del 1.12.1958, riguardante le letture che Lei potrà tenere nel nostro Istituto. Le confermo che il periodo che Lei indica, dell'ultima settimana di maggio, va bene, e pensoche Lei potrebbe tenere 3 lezioni in tre giorni diversi sulle applicazioni della termodinamica all'ingegneria chimica, come proposto, portando anche alcuni esempi.

La prego di confermarmi se é d'accordo in linea di massima su questo programma, in modo da prendere accordi precisi.

In attesa di incontrarLa, La prego di gradire i miei migliori saluti.

G.Natta

Chemical Engineering Department
Yale University
Sterling Chemistry Laboratory
225 Prospect Street
New Haven, Conn.

NEW HAVEN
MAR 12
7 PM
1959
CONN.

USE ZONE NOS.
FOR
MAIL SERVICE

AIR MAIL

AIR LETTER
AÉROGRAMME

VIA AIR MAIL
PAR AVION

Professor G. Natta
Instituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci
Milano 32, Italy

NO TAPE OR STICKER MAY BE ATTACHED

IF ANYTHING IS ENCLOSED, THIS LETTER WILL BE SENT BY ORDINARY MAIL

MILANO
7-8
16-III
1959

FIRST FOLD

SECOND FOLD

March 12, 1959

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci
Milano 32, Italy

Dear Professor Natta:

I have delayed answering your letter of January 27 until I could get some definite information about passage to Europe on a ship. Up to the present time the agents have not been able to obtain any passage for me which would enable me to arrive in Milano in May. I suppose I could get passage on an airplane but I don't like to do that because I want to take my car with me. In view of these difficulties of arranging for my travel, I think I had better say that I cannot get to Milano in May to deliver the lectures. I am sorry that it turned out this way but steamship reservations have to be made very early if one is to be certain of getting them at the time he wants them.

Sincerely yours,

B F Dodge

BFD:A

Barnett F. Dodge
Professor of Chemical Engineering
Yale University
225 Prospect Street
New Haven, Conn. USA

Chemical Engineering Department
Yale University
Sterling Chemistry Laboratory
225 Prospect Street
New Haven, Conn.

U S POSTAGE
AIR MAIL 10¢

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
Milano 32, Italy

FIRST FOLD

SECOND FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

NO TAPE OR STICKER MAY BE ATTACHED
IF ANYTHING IS ENCLOSED, THIS LETTER
WILL BE SENT AS ORDINARY MAIL

P. Mantica

Chemical Engineering Department
Yale University
Sterling Chemistry Laboratory
225 Prospect Street
New Haven, Conn.

December 1, 1958

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci
Milano 32, Italy

Dear Professor Natta:

Ever since receiving your letter of November 7 I have been trying to come to a decision about going to Milano next summer. If I come in May I couldn't leave here until about the middle of the month and would expect to arrive in Milano about May 23rd. This would leave a week in May during which time I could probably give three or four lectures. I presume that after your examinations in June the students leave for their vacations and so the lectures would have to be given before the examinations.

I don't have a very definite idea about how many lectures you would like to have me give. As we discussed by letter last year, I intend to lecture on the subject of the applications of thermodynamics to chemical engineering. This is a very broad subject and I could give a good many lectures but also I could compress them into as small a number as three. Could you give me an idea of what you had in mind?

I would appreciate a reply from you as soon as possible so that I can make reservations on a ship. This has to be done very soon if one is to be certain of getting space for next May.

Sincerely yours,

B F Dodge

Barnett F. Dodge
Professor of Chemical Engineering

BFD:A

Sì fine maggio
3 lezioni
argomento sta bene

Mantica
2/XII/58
N.

335 Pierce Street
Kingston, Pennsylvania
August 31, 1959

Professor G. Natta
Instituto di Chimica Industriale del Politecnico
Milano, Italy

Dear Prof. Natta

My purpose in writing to you is to investigate the possibility of doing research in high polymers at the Instituto. I am currently applying for a Fulbright Fellowship from the United States Government for study in Europe. My studying in Europe will be dependent on whether or not I can receive financial aid.

I should like to give you a brief account of my educational background and interests and request that you indicate and describe any projects which you feel would be of interest to me. Should it be possible for me to study in Europe, it would be for the academic year beginning September, 1960.

I received a Bachelor of Science degree in Chemical Engineering from the Massachusetts Institute of Technology in June of this year. My Bachelor's Thesis involved the study of the permeability of polypropylene films to gases. I am sure that you above allothers are aware of the properties of this polymer. My thesis was done under the supervision of Prof. Alan S. Michaels at M.I.T.

Beginning this month I will attend the Plastics Laboratory at Princeton University. The curriculum there will involve mostly the properties and manipulation of high polymers. I expect to receive a Master of Science degree in June of 1960.

If one were to divide the study of high polymers into the categories of synthesis, investigation and manipulation of properties, and polymer processing, my interests would lie in the field of investigation and manipulation of properties. I don't know if I can narrow this down more precisely, but this would include such things as investigation of structure, physical chemistry of polymers, and irradiation effects to name just a few.

I realize that most of your work is in the field of synthesis, but if you feel that there would be any possibility of studying with you or someone else at the Instituto along the lines I have mentioned, it would be greatly appreciated if you would outline and describe the type of work which may be available.

Since I find myself rather short of time to make my Fulbright application, I further request that you notify me as soon as possible without inconvenience to yourself.

Sincerely yours,

Howard H. Zabusky

Howard H. Zabusky

Ann

Sept. 4, 1959

Howard H. Zabusky,
335 Pierce Street,
Kingston, Pennsylvania

our ref. 969/lv

Dear Mr. Zabusky,

with regard to your letter, I am sorry to inform you that our Institute cannot give you any financial aid.

If you will succeed in getting the Fulbright Fellowship, we shall be able to make you welcome here, where you will be able to accomplish researches in the field of the properties of the new polymers and of their applications. The field of work may concern either the study of structure by X-Rays, or of crystallinity by I.R., or of the mechanical properties, according to the field you are mostly interested in.

With best regards.

(Prof. G. Natta)

25th November 1959

Mr. Kenneth S.Wyatt
PHELPS DODGE COPPER PRODUCTS C
300 Park Avenue
New York 22, N.Y.

Our refs.916/eg

Dear Dr. Wyatt,

I apologize for answering your kind letter of July 29 only to-day and I wish to thank you for the paper you kindly sent me.

I believe it is possible to obtain polymers which do not exhibit (or exhibit in a very limited degree) the defects belonging to the polymers indicated in your report. They can, however, be obtained only starting from particular monomers which, at present, are very expensive.

It would be very kind of you to let me know the highest price which could be paid for a polymer having all the characteristics quoted by you.

With my kindest regards,

G.Natta

March 21, 1959

Ann

Prof. Barnett F. Dodge
Yale University
225 Prospect Street
NEW HAVEN, Conn. - U.S.A.

Ref. No. 348/rl

Dear Professor Dodge,

I have received your letter of March 12, 1959, and I regret very much that, owing to the difficulties you mentioned in your letter, you cannot get to Milan, to deliver the lectures foreseen in May.

I do hope that some day you will able to come and in the meantime I remain,

Sincerely yours,

G. Natta

Ann

January 27, 1959

Prof. Barnett F. Dodge
Chemical Engineering Dept.,
Yale University
Sterling Chemistry Lab.,
225 Prospect Street
New Haven, Conn.

1312/mb

Dear Professor Dodge,

Many thanks for your kind letter of December 1, 1958, concerning the lectures you will be able to give at our Institute. Chemists and students from this Institute will certainly attend to them with the utmost interest.

As for the date you suggested, i.e. the second fortnight of May, I think it is all right: you might deliver three lectures, in three different days, on the subject of the applications of thermodynamics to chemical engineering, as previously concerted, and bring some examples suitable for a better explanation.

Please confirm if you do agree with this program in a general way, so as to allow us to make suitable arrangements.

Awaiting to meet you, I remain,

Sincerely yours,

G. Natta

efisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

UM2297 NRD57 BROOKLYN NY 16 22 955A =

PER LA RISPOSTA TELEFONATE AL N. 8838

TELEGRAMMA *via Italcable via Italo Radio*

1959 GEN 22 19 01

LT PROFESSOR G NATTA
LYTECHNIC INSTITUTE MILANO =
LEONARDO DA VINCI 32

1404

Spazio riservato agli estremi di ricevimento

22.-1.1959 MILANO

~~325~~

WOULD APPRECIATE RETURN OF GAYLORD MARK GALLEYS = H MARK +

Il Governo Italiano e la Società Italcable non assumono alcuna responsabilità in conseguenza del servizio telegrafico
Le tariffe « VIA ITALCABLE » e « VIA ITALO RADIO » sono uguali a quelle delle vie meno costose

USA 1960

November 9, 1960

J.W.Iliff, Secretary
Advisory Committee of the
John Scott Award
3500 Grays Ferry Ave.
Philadelphia 46, PA.

Dear Mr. Iliff,

With regard to your kind letter of October 19, I give you the requested explanations.

I believe that, among the definitions indicated in your letter, the broadest one better defines Prof.Natta's invention and, more precisely:

> "Method of synthesizing new classes of stereoregular polymers suitable for use as high melting plastics, highly tenacious textile fibers and valuable elastomers, and determination of their crystalline structures."

In fact, Prof. Natta was the first chemist who succeeded in synthesizing highly crystalline isotactic polymers of propylene, butene-1, styrene, and syndiotactic polymers of propylene, and in determining their crystalline structure. For the first time, he also isolated all four possible butadiene crystalline stereoisomers (1,2-isotactic and syndiotactic polybutadienes, trans-1,4 and cis-1,4 polybutadienes) in the state of very high steric purity, and determined their structures. Cis-1,4 polybutadiene of high steric purity possesses dynamic properties which are very similar to those of cis 1,4-polyisoprene, which constitutes natural rubber.

I would advise not to limit to "synthetic natural rubber", since the priority of the production of trans-1,4 and cis-1,4 polyisoprenes (the latter having a chemical composition very similar to that of natural rubber) may be called in question.

With my kind regards,

September 23, 1960

Memorandum

Professor Giulio Natta opened a new, wide field of macromolecular chemistry, with his discovery of the stereoregular polymerization processes with highly stereospecific catalysts. This discovery allowed to obtain, for the first time and by fairly simple means, new types of linear macromolecules, characterized by a particular regularity in their steric structure and high crystallinity.

He developed a large number of research works which allowed not only to synthetize a great number of new polymers, but also to determine the kinetics of the catalytic processes, the nature of the chain termination and chain transfer processes regulating the molecular weight, and the crystalline structure of some of the most important new macromolecules.

Many of these polymers are arousing a real revolution in the field of plastics, of synthetic fibres and synthetic rubbers.

a) Professor Natta denominated one type of these new highly crystalline polymers as "isotactic"; in them, molecules show a regular succession of monomeric units having the same relative steric configuration, and, in the crystalline state, a helix-type structure.
This is one of the first cases in which the structure of hydrocarbon macromolecules shows, in the solid state, a remarkable shape analogy with the structure of some natural substances containing asymmetric carbon atoms (such as α-keratin).

./.

September 23, 1960

Sheet No.2

Isotactic crystalline poly-α-olefins (polypropylene, polybutene, polystyrene, etc.) are produced in very high yields from the monomers which can be obtained (propylene and butene in particular) from crude oil at a very low cost. They are finding a large application not only in the field of plastics, but also in the field of synthetic fibres, owing to their high melting point and high mechanical properties.

High tenacity fibres will be far less expensive than any other synthetic fibre and, most probably, also less expensive than the present cost of cotton.

Commercial plants of polypropylene with Natta's process, are working in Ferrara (Italy) for the production of plastics (Moplen), and more recently in Terni (Italy) for the synthetic production of synthetic fibres (Meraklon) having high tenacity.

Companies which have license on the Natta's process (developed commercially by Montecatini) are building plants in U.S.A. (Novamont Co., New York), in England (Imperial Chemical Industries, London; Shell Chemical Co.Ltd., London), in France (Péchiney and Société Normande de Matières Plastiques, Paris), in Austria (Danubio Petrochemie AG, Wien), in Germany (Farbwerke Hoechst, Frankfurt; Badische Anilin und Soda Fabrik, Ludwigshafen a/R; Chemische Werke Hüls, Marl Kreis Recklinghausen), in Benelux (Rotterdamse Polyolefinen Matschappy, Rotterdam); other licenses are going to be given in Japan and in other

./.

September 23, 1960

Sheet No.3

Countries.

Natta and co-workers have also prepared and studied the structure of other new crystalline polymers (e.g. a new polypropylene, a new polybutadiene), he denominated "syndiotactic", which differ from the isotactic ones, because asymmetric carbon atoms, with an opposite steric configuration, alternate in the main chains in a regular succession.

b) New sterically pure polydiolefins and, among them, the four modifications of polybutadiene, two modifications of which have cis 1,4 and trans 1,4 enchainment and the other two have isotactic 1,2 and syndiotactic 1,2 enchainment respectively were prepared. Cis 1,4 polybutadiene at very high steric purity, obtained for the first time by Prof.Natta, exhibits, under stretching, crystallinity as natural rubber. This is the polymer which, for its properties, is the most similar to the cis 1,4 polyisoprene (contained in natural rubber) and it is less expensive than synthetic polyisoprene, owing to lower cost of the monomer butadiene in comparison with isoprene.

A pilot plant for the production of cis 1,4 polybutadienes with high steric purity (> 96%) has been built by Montecatini at Castellanza; a plant for the commercial production of cis 1,4 polybutadiene will be built in Brindisi.

The polymer with a high steric purity shows better mechanical properties, also when reinforcing agents are absent, and a better workability than other polybutadienes, developed by other Companies.

./.

September 23, 1960

Sheet No.4

c) Other new stereregulated non hydrocarbon monomers containing O, N, Si, Sn, etc., like isotactic polyvinylpiridines, polyaldehydes, polyvinylethers, were discovered by Natta and co-workers.

d) New synthetic rubbers were obtained by Natta et al. from amorphous ethylene-prepylene copolymers of high molecular weight, having linear head-to-tail structure and composition homogeneity; they are of great interest too.
This rubber is produced by a Montecatini pilot plant in Ferrara. This synthetic rubber which shows good elastic properties and a better aging resistance than natural rubber, has been favourably judged by manufacturing companies; it is scheduled that it will be produced by a commercial plant with a 20,000 tons scale output in Brindisi (Italy). It is foreseen a price cost lower than that of any other synthetic rubber.

At the same time, Prof.Natta and his co-workers devoted part of their research works to the chemistry of metallorganic compounds, succeeded in isolating new crystallizable complexes, having a catalytic activity in the polymerisation field; in the course of these researches, he was able to throw light upon mechanism of an important type of stereospecific catalysis, establishing that it is an anionic co-ordinated process.

./.

September 23, 1960

Sheet No.5

The research work carried out by Prof.Natta on one hand brought to results of high scientific interest and, on the other hand, to realisations of a very great commercial importance in the field of macromolecular chemistry (particularly, of high melting crystalline plastics, of high tenacity textile fibres and of new synthetic rubbers).

We herewith enclose a list of publications by G.Natta and co-workers, developed at the Institute of Industrial Chemistry of the Polytechnic of Milan.

Natta and co-workers have about 100 patents in Italy, most of their patent applications were filed by Montecatini Co. in many other countries.
Here we mention the first patents on stereospecific polymerisation and on new products :

— Production of isotactic polymers (plastics and fibres) of propylene and other α-olefins :
  - Italian Priority : June 8, 1954 (No.535,712)
  - Italian Priority : July 27, 1954 (No.537,425)
  [These Patents have been extended by Montecatini Co. in several foreign countries together with a Ziegler Patent :
  - German Priority : August 3, 1954 (No.537,164)]

— Production of isotactic polymers having high steric purity :
  - Italian Priority : December 3, 1954 (No.526,101)

./.

September 23, 1960

Sheet No.6

— Trans 1,4 polybutadiene and polyisoprene :
  - Italian Priority : March 12, 1955 (No.536,631)
  - Italian Priority : December 22, 1955 (No.553,904)

— Cis 1,4 polybutadiene (stereospecifically pure, crystallizing under stretching) :
  - Italian Priority : July 31, 1956 (No.566,940)

— Isotactic polybutadiene with 1,2 enchainment :
  - Italian Priority : April 13, 1956 (No.563,507)

— Syndiotactic polybutadiene with 1,2 enchainment :
  - Italian Priority : July 15, 1955 (No.538,453)

— Amorphous propylene-ethylene copolymers as rubber :
  - Italian Priority : December 23, 1955 (No.554,808)

- • - • - • - • - • -

Professor Giulio Natta opened a new, wide field of macromolecular chemistry, with his discovery of the stereo= regular polymerization processes with highly stereospecific catalysts. This discovery allowed to obtain, for the first time and by fairly simple means, new types of linear macro= molecules, characterized by a particular regularity in their steric structure and high crystallinity.
He developed a large number of research works which allowed not only to synthetize a great number of new polymers, but also to determine the kinetics of the catalytic processes, the nature of the chain termination and chain transfer processes regulating the molecular weight, and the crystalline structure of some of the most important new macromolecules.

Many of these new polymers are arousing a real revolution in the field of plastics, of synthetic fibres and synthetic rubbers.

a) Professor Natta denominated one type of these new highly crystalline polymers as "isotactic"; in them, molecules show a regular succession of monomeric units having the same relative steric configuration, and, in the crystalline state, a helix-type structure.
This is one of the first cases in which the structure of hydro= carbon macromolecules shows, in the solid state, a remarkable shape analogy with the structure of some natural substances containing asymmetric carbon atoms (such as α-keratin).
Isotactic crystalline poly-α-olefins (polypropylene, poly= butene, polystyrene, etc.) produced in very high yields from the monomers which can be obtained (propylene and butene in particular) from crude oil at a very low cost. They are find= ing a large commercial application not only in the field of plastics, but also in the field of synthetic fibres, owing to their high melting point and high mechanical properties.

High tenacity fibres will be far less expensive than any other synthetic fibre and, most probably, also less expensive than the present cost of cotton. ~~at present.~~

Commercial plants of polypropylene with Natta's process, are working in Ferrara (Italy) for the production of plastics (Moplen), and more recently in Terni (Italy) for the synthetic production of synthetic fibres (Meraklon) having high tenacity.

Companies which have license on the Natta's process (developed commercially by Montecatini) are building plants in U.S.A. (Novamont Co. New York), in England (Imperial Chemical Industries, London; Shell Chemical Co.Ltd., London), ~~in Netherlands (Shell Chemical Co.Ltd.)~~, in France ("Péchiney" and Société Normande de Matières Plastiques, Paris) in Austria (Danubio Petrochemie AG.,Wien), in Germany (Farbwerke Hoechst, Frankfürt; Badische Anilin und Soda Fabriek, Ludwigshafen a/R; Chemische Werke Hüls), in Benelux (Rotterdamse Polyolefinen Matschappy,Rotterdam); other licenses are going to be given in Japan and in other Countries.

Natta and co-workers have also prepared and studied the structure of other new crystalline polymers (E.g. a new polypropylene, a new polybutadiene), he denominated "syndiotactic", which differ from the isotactic ones, because asymmetric carbon atoms, with an opposite steric configuration, alternate in the main chains in a regular succession.

b) New sterically pure polydiolefins and, among them, the four modifications of polybutadiene, two modifications of which have cis I,4 and trans I,4 enchainment, and the other two have isotactic I,2 and syndiotactic I,2 enchainment respectively. Cis I,4 polybutadiene at very high steric purity, obtained for the first time by Prof.Natta, exhibits, under stretching, crystallinity as natural rubber. This is the polymer which, for its properties, is the most similar to the cis I,4 poly-isoprene (contained in natural rubber) and it is less expensive than synthetic polyisoprene, owing to the lower cost of the monomer butadiene in comparison with isoprene.

A pilot plant for the production of cis I,4 polybutadienes with high steric purity (> 96%) has been built by Montecatini at Castellanza

~~Spoliantza;~~ a plant for the commercial production of cis I,4 polybutadiene will be built in Brindisi.
The polymer with a high steric purity shows better mechanical properties, also when reinforcing agents are absent, and a better workability than other polybutadienes, developed by other Companies.

c) Other new stereoregulated non hydrocarbon monomers containing O, N, Si, Sn, etc., like isotactic polyvinylpiridines, polyaldehydes, polyvinylethers, were discovered by Natta and co-workers.

d) New synthetic rubbers were obtained by Natta et al. from amorphous ethylene-propylene copolymers of high molecular weight, having linear head-to-tail structure and composition homogeneity; they are of great interest too.
This rubber is produced by a Montecatini pilot plant in Ferrara. This synthetic rubber which shows good elastic properties and a better aging resistance than natural rubber, has been favour= ably judged by manufacturing companies; it is scheduled that it will be produced by a commercial plant with a 20,000 tons scale output in Brindisi (Italy). It is foreseen a price cost lower than that of any other synthetic rubber.

At the same time, Prof.Natta and his co-workers devoted part of their research works to the chemistry of metallorganic compounds, succeeded in isolating new crystallizable complexes, having a catalytic activity in the polymerization field; in the course of these researches, he was able to throw light upon the mechanism of an important type of stereospecific catalysis, establishing that it is an anionic co-ordinated process.

The research work carried out by Prof.Natta on one hand brought to results of high scientific interest and, on the other hand, to realizations of a very great commercial importance in the field of macromolecular chemistry (particularly, of high melting crystalline plastics, of high tenacity textile fibres

and of new synthetic rubbers).

We herewith enclose a list of publications by G.Natta and co-workers, developed at the Institute of Industrial Chemistry of the Polytechnic of Milan.

Natta and co-workers have about 100 patents in Italy, most of their patent applications were filed by Montecatini Co. in many other countries.

Here we mention the first patents on stereospecific polymerization and on new products :

--- Production of isotactic polymers (plastics and fibres) of propylene and other α-olefins :

- Italian Priority : June 8, 1954 (No.535,712)
- Italian Priority : July 27, 1954 (No.537,425)

[These Patents have been extended by Montecatini in several foreign countries together with a Ziegler Patent :
German Priority : August 3, 1954 (No.537.164)]

----- Production of isotactic polymers having high steric purity

- Italian Priority : December 3, 1954 (No.526,101)

--- Trans 1,4 polybutadiene and polyisoprene :

- Italian Priority : March 12, 1955 (No.536,631)
- Italian Priority : December 22, 1955 (No.553,904)

--- Cis 1,4 polybutadiene(stereospecifically pure, crystallizing under stretching):

- Italian Priority : July 31, 1956 (No.566.940)

--- Isotactic polybutadiene with 1,2 enchainment :

- Italian Priority : April 13, 1956 (No.563,507)

--- Syndiotactic polybutadiene with 1,2 enchainment :

- Italian Priority : July 15, 1955 (No.538,453)

--- Amorphous propylene-ethylene copolymers as rubber :

- Italian Priority : December 23, 1955 (No.554,803)

La scoperta di polimeri aventi una struttura sterica regolare a partire da monomeri olefinici e diolefinici ha consentito di preparare :

1° polimeri isotattici di alfa-olefine ad alta purezza sterica (Brev.Italiano ~~U.59~~ N°535.712; ~~U.63~~ N°537.425; ~~U.63/a~~ N°547.254) che hanno portato a applicazioni importanti nel campo delle materie plastiche e delle fibre tessili e dei film.

2° La preparazione di polimeri stereoregolari delle diolefine aventi alta purezza e capaci di cristallizzare.

3° Polimeri dell'isoprene aventi struttura della guttaperca e polimeri del butadiene aventi struttura 1,4 trans sono stati preparati ad alta purezza sterica (Brev.Italiano ~~U.78~~ N° 536.631; Brev.Belga N°545.952); polimeri del butadiene a concatenamento 1,2 isotattici e sindiotattici sono stati preparati pure con purezza sterica elevata.

Inoltre è stato preparato per la prima volta un polimero del butadiene 1,4 cis che cristallizza sotto stiro come la gomma naturale (Brev.Italiano ~~U.121~~ N°566.940; Brev.Belga N°559.676). Dato il minor costo del butadiene dei confronti dell'isoprene, i polimeri del butadiene con purezza sterica superiore al 96%, sono destinati a largo impiego in sostituzione dei polimeri di isoprene che sono più costosi.

Un altro tipo di gomma sintetica di notevole interesse pratico è il copolimero etilene-propilene.

Il copolimero etilene-propilene amorfo che presenta proprietà elastiche migliori degli altri polimeri olefinici sinora noti, maggiore resistenza all'invecchiamento della gomma naturale, e basso costo di produzione.

L'impianto della produttività di 20.000 ton/anno sarà costruito dalla Montecatini a Brindisi in base ai risultati dell'impianto pilota funzionante a Ferrara.

Di tutti i polimeri sopra indicati è stata determinata la struttura cristallina e la conformazione della catena nei cristalli : polipropilene isotattico, polibutene, polistirolo isotattico e altri stiroli sostituiti, polimeri isotattici delle aldeidi, vinileteri, vinilsilani, vinilpiridine, ecc. del polibutadiene; polimeri sindiotattici del butadiene, del propilene ;
la struttura cristallina del polibutadiene 1,4 cis e del 1,4 trans e nuova interpretazione della disposizione delle catene del poliisoprene 1,4 cis ;
sintesi e struttura cristallina dei polimeri diisotattici con struttura treodiisotattica, eritroisotattica ottenuti per polimerizzazione di composti non saturi con doppio legame olefinico sostituiti in entrambi gli atomi di carbonio dal doppio legame.

E' unito un elenco delle pubblicazioni già stampate.

GRAND HOTEL DUOMO
MILANO

impressione
piacente
only to visit

November 11, 1960

Dear Professor Natta,

Just before leaving London a few days ago I learned of your operation and was pleased to observe the happiness with which people spoke of the success.

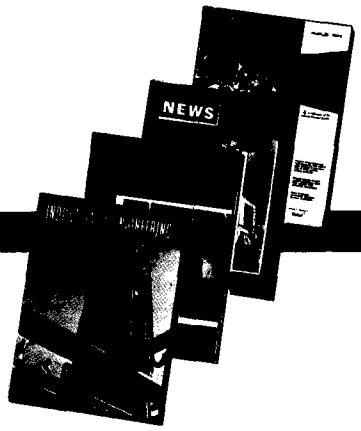
Now having arrived in Milan I learn that recently you have come home. I feel that I should not impose upon you, but I do want to give you my greetings and good wishes by means of this note. When I left the U.S. my wife asked especially that I convey her good wishes to both you and the charming Mrs. Natta whom we remember from our visits to Milan.

Sincerely yours, Richard Kuyper

P.za DUOMO 25, VIA S. RAFFAELE 1 - TEL. 88.33 (25 LINEE) TELEGR., DUOMOGRAND MILANO

ACS APPLIED PUBLICATIONS

PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY



Bush House • Aldwych, London, W.C.2 • Phone TEMple Bar 3605
Telegrams: JIECHEM, ESTRAND, LONDON

4 November, 1960

Professor Giulio Natta,
Istituto di Chimica Industriale,
Politecnico,
Piazza Leonardo da Vinci,
Milan, Italy.

Dear Professor Natta,

Some time ago I indicated by letter that I expected to be in Europe at this time and hoped I might see you. I am now in London and am planning to be in Milan Thursday and Friday, November 10 and 11. I have requested a reservation at the Hotel Duomo. On arrival I shall telephone you to learn if it might be possible for me to call on you briefly.

I send my cordial personal regards to you and Mrs. Natta.

Sincerely yours,

Richard L. Kenyon

Richard L. Kenyon
Editorial Director

Physical - Polymers

ACS APPLIED PUBLICATIONS

PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth Street N.W. • Washington 6, D. C. • REpublic 7-3337

30 June 1960

Professor Giulio Natta
Istituto di Chimica Industriale,
Politecnico
Piazza Leonardo da Vinci
Milan, Italy

Dear Professor Natta:

Some weeks ago, Mr. Lucio Lucini, President of Novamont Corporation, presented us with five volumes of your collected works as a gift from the Montecatini Company. I am pleased to tell you that these are now on display in the main library of the new American Chemical Society building in Washington, D. C. They are displayed with pride and appreciation. Certainly the scientific material in these volumes has contributed greatly to revolutionary progress in the science of polymer chemistry.

It gave me particular personal pleasure to accept these on behalf of the American Chemical Society, as I have stimulating recollections of our conversations in the days when I was European editor for our publications. I am very sorry indeed that I have not had an opportunity to visit you in several years as my duties have kept me in the United States. However, it now appears that I shall attend the International Congress of Industrial Chemistry sponsored by the Societe de Chimie Industrielle, in Barcelona in October. While I am in that part of the world I plan to visit some of the people who were so very kind and helpful to me a few years ago. I hope that at that time I shall have the pleasure of seeing you.

My cordial personal regards.

Sincerely,

Richard L. Kenyon

Richard L. Kenyon
Editorial Director

RLK:mhl

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

March 22, 1960

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

authors: Porri, Corradini, Morero and Allegra
ms: COMM ED: Hydrolysis of Cyclopentadienyl Titanium Trichloride

We received the Communication to the Editor by Porri, Corradini, Morero and Allegra. This places the editors in a difficult position.

On November 2, 1959, we received an article by Gorsich entitled "Preparation and Properties of Cyclopentadienyltitanium Trichloride". This was accepted on March 8, 1960. This pointed out the discrepancy. We do believe your x-ray and infra-red data should be published, probably as a NOTE in the Journal of Physical Chemistry, but we do not believe Communications to the Editor on this subject should be published.

We are asking Dr. Gorsich to communicate with you and with Dr. Barber.

Very sincerely yours,

W. Albert Noyes, Jr.

W. Albert Noyes, Jr.
Editor

WAN M

Encls. ms. orig.
orig. figs.

Porri
for Perkins

Ann.

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pennsylvania
U.S.A.

RESEARCH AND DEVELOPMENT DIVISION

May 20, 1960

Professor G. Natta
Institute of Industrial Chemistry
Polytechnic School of Milan
Milan, Italy

Dear Professor Natta:

I have recently had the opportunity to peruse the very interesting supplement put out by Nuovo Cimento entitled "Research on Crystalline Synthetic High Polymers with a Sterrically Regular Structure" Vol. XV, serie X, No. 1, 1960. Since I am actively engaged in a study of the infrared spectra of crystalline polymers, I should very much appreciate receiving a copy of this supplement or reprints of whatever papers you have available, which are in this supplement.

With thanks for the many other reprints which you have sent to me, I am

Very truly yours,

R. H. Marchessault

Robert H. Marchessault,
Research and Development
Division

RHM

Nuovo Cimento

September 23, 1960

Mr.J.W.Iliff, Secretary
Advisory Committee of the
John Scott Award
3500 Grays Ferry Ave.
Philadelphia 46, Pa., U.S.A.

Dear Mr.Iliff,

Thank you very much for applying to me with regard to the proposal that the John Scott Award be given to Professor Giulio Natta.

Even if I am well acquainted with the research works developed at the Institute of Industrial Chemistry of the Polytechnic, directed by Prof.Natta, I preferred to address myself directly to a proper person in the Institute of Industrial Chemistry in order to get some reprints of works by Prof.Natta and co-workers, for further information.

I send you a memorandum I have written on the works carried out by Prof.Natta, and a general list of papers in the field of stereo-ordered polymers. Moreover, I send you under separate cover some reprints of lectures, general in character, and of works on polymer structure.

Of course I am at your disposal for any other explanation you may desire.

With my kindest regards, I remain,

Very truly yours,

(Prof.L.Malatesta)

ADVISORY COMMITTEE ON THE JOHN SCOTT AWARD
BOARD OF DIRECTORS OF CITY TRUSTS
PHILADELPHIA

ADVISORY COMMITTEE
DONALD C. RUBEL
CHAIRMAN
JOHN W. ILIFF
SECRETARY
EDWARD G. BUDD, JR.
DR. CARL C. CHAMBERS
DR. JOHN H. GIBBON, JR.
WHEELER McMILLEN
HENRY N. PAUL, JR.
DR. WENDEL M. STANLEY
DR. E. R. WEIDLEIN
CORRESPONDING MEMBERS
DR. HARLOW SHAPLEY
DR. HAROLD C. UREY

OFFICE OF THE SECRETARY
3500 GRAYS FERRY AVE.
PHILADELPHIA 46, PA.

TELEPHONE
HO 5-3000

November 18, 1960.

Professor Lamberto Malatesta, Directtore
Instituto di Chimica Generale
Dell'Universita di Milano
Milano, Italy

Dear Professor Malatesta:

Thank you for your letter of November 9 and the definition of Professor Natta's invention. It is, of course, better and more accurate, and if clarifies some questions received from American correspondents.

The investigation is now proceeding satisfactorily.

Very truly yours,

J. W. Iliff, Secretary

JWI/mrl

Nov. 21, 1960

Dr. Richard L. Kenyon,
Editorial Director,
ACS Applied Publications,
1155 Sixteenth Street N.W.
Washington 6, D.C. (USA)

Dear Doctor Kenyon:

Thank you very much for the kind note you wrote to me on your visit to Milan.

I regret to have missed the opportunity to meet you again, being convalescent.

My wife joins me in sending you and Mrs. Kenyon our best regards.

G. Natta

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

March 28, 1960

Professor Giulio Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

I am very pleased that you liked the photographs and am sending you some additional prints. If I can be of further service please do not hesitate to write.

Best wishes,

Arthur Weinberg

Encl.

Ringrazio

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

March 8, 1960

Prof. Giulio Natta
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

The enclosed photographs are one immediate result of our Milan conversations on February 17th. I am rather pleased with them and hope you will be too.

Should you wish further prints, I shall be happy to supply them.

May I thank you once again for your unfailing patience and courtesy. It was pleasant and instructive talking with you.

Sincerely,

Dr. Arthur M. Weinberg
Vice President
Public Relations Dept.

AMW:jc
Encl.

rimpressione rimanente -
e chiedere
2 copie a parte
anche prints + [illegible]

NEW YORK • CLEVELAND

BALM Paints Pty. Ltd.

Registered Office
I.C.I. HOUSE, 1 NICHOLSON STREET, MELBOURNE, C.2

Cables and Telegrams
"PIGMENTS" MELBOURNE
TELEPHONE: FB 2061

G.P.O. BOX 4853
MELBOURNE

10th August 1960

Dr. G. Natta,
Instituto di Chimica Industriale del
Politecnico,
Milan,
ITALY.

Dear Dr. Natta,

I am planning an overseas visit within the next three months and during that time would very much like to visit your department and learn of the work you are doing in the Polymer field.

It is tentatively planned to visit you on 1st December and I should be very pleased to know if my planned visit is agreeable to you and whether the date is convenient.

In our Research Laboratory we have an active group concerned with development of new resins and polymers and this explains my interest in your work.

Yours sincerely,
BALM Paints Pty. Ltd.,

J.F. Pearse,
Research Manager.

JFP:JSA

March 30, 1960

W. Albert Noyes Jr., Editor
Journal American Chem. Soc/
Dept. of Chemistry,
University of Rochester,
River Campus Station,
Rochester 20, New York (US.

our ref. 323/lv

Dear Dr. Noyes,

I received your letter of March 22 concerning the Communication on the "Hydrolysis of Cyclopentadienyl titanium trichloride".

We are sorry that this Communication to the Editor cannot be accepted by your Journal; however we shall send it to a European Journal.

With regard to your suggestions to publish the I.R. and X-ray data in the Journal of Physical Chemistry, we prefer to postpone the publication of these data until we have examined the whole series of the hydrolysis products.

With kind regards,

G. Natta

July 12, 1960

Dr. Richard L. Kenyon,
Editorial Director, -
ACS Applied Publications,
1155-Sixteenth Street N.W.
Washington 6, D.C. (USA)

our ref. 702/lv

Dear Doctor Kenyon:

thank you very much for your letter of June 30 and for the kind works you addressed to my works and to myself.

I shall not go to Barcelona for the International Congress of Industrial Chemistry in October. If you come to Italy, while you are in Europe, I shall be very glad to meet you.

Hoping to meet you in a near future, I send you my best regards.

Sincerely yours,

G. Natta

January 27th 1960

James W. Anderson
S.C. Johnson & Son, Inc.
Racine, Wisconsin
(U.S.A.)

Dear Sir,

According to your request of the following reprint: "Conformation of Linear Chains & their Mode of Packing in the Crystal State; J.Pol.Sci. 39, 29 (1959), we are sorry to inform you that we have no available copies.

Best regards.

(Secretary to Prof. G. Natta)

Aug. 31, 1960

Dr. J. F. Pearse, Research Manag
Balm Paints Pty. Ltd.
I. C. I. House,
1 Nicholson Street,
Melbourne, C.2 (Canada)

our ref. 802/lv

Dear Dr. Pearse,

With regard to your letter of August 10, concerning your visit to Italy, I wish to inform you that I am not sure to be in Milan on Dec. 1, 1960.

In any case, if by chance, I am absent, some co-workers of mine will accompany you in your visit to my Institute.

With my best regards,

G. Natta

Nov. 10, 1960

Dr. Arthur M. Weinberg,
G.M. Basford Co.
60 East 42 Street,
New York 17, N.Y. (USA)

GN/lv

Dear Doctor Weinberg:

I sincerely thank you for your kind wishes which were very much appreciated.

I am recovering quite well and I hope that further improvements will appear in the future.

Thanking you again, I send you my best regards.

G. Natta

G. M. BASFORD COMPANY

60 East 42nd Street • New York 17, N.Y. • MUrray Hill 2 • 2838

November 2, 1960

Professor Giulio Natta
Polytechnic Institute of Milan
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Prof. Natta:

Dr. Ottolenghi tells me that you have just undergone an operation for Parkinson's, and that you are recuperating nicely.

May I join with your other friends and admirers in wishing you a speedy return to full activity and good health.

Sincerely,

Arthur M. Weinberg

AMW:tz

Aur

April 5, 1960

Dr. Arthur Weinberg,
c/o G.M. Basford Co.
60 East 42nd Street,
New York 17, N.Y. (U.S.A.)

Dear Doctor Weinberg,

I wish to thank you very much indeed for the beautiful photographs you kindly sent to me on March 28.

I feel much obliged for your courtesy.

Kindest regards,

G. Natta

March 18, 1960

Dr. Arthur H. Weinberg,
Vice President
Public Relations Dept.
G. . Bedford Co.
50 East 42nd Street,
New York 17, N.Y. (USA)

Dear Doctor Weinberg,

I wish to thank you most sincerely for the beautiful photographs you were so kind to send us.

I would be delighted to have some further prints of the photographs bearing the Nos 1 and 3.

Thanking you for your kindness and congratulating you for the very fine photographs, I send you my best regards.

Yours sincerely,

Giulio Natta

May 24, 1960

Prof. F. H. Basolo,
Department of Chemistry,
Northwestern University,
Evanston, Illinois (USA)

our ref.548/lv

Dear Doctor Basolo,

I wish to thank you for your letter of May 19, and for the lecture you gave in my Institute.

I am very sorry I could not be present at it, also because all my co-workers enjoyed it very much.

If possible, I would very much appreciate receiving the summary of your lecture for publication in "La Chimica e l'Industria".

Hoping to meet you in Italy sometime in the future, I send you my kindest regards.

Yours very sincerely,

G. Natta

Telefonato a Saccoman da Sicili

Mott Giustini Saccoman per il 12

INDUS... * 2 MAG 1960 * R 463

ISTITUTO DI CHIMICA GENERALE
DELL'UNIVERSITÀ DI PALERMO

IL DIRETTORE

PALERMO,
VIA ARCHIRAFI, 26 - TEL. 30502

(Barolo)

REF. 438/IV

Dear Prof. Natta:

Thank you very much for your letter inviting me to visit your laboratories and institute.

I regret that I will not be able to give my lecture on Friday May 13.

May I suggest that you talk to Prof. Malatesta and see if my visit with him can be changed to May 12. In such a case I will then visit with you on May 11 and give my lecture May 11.

I regret that this cannot be done on May 13 but hope some other arrangement there is possible. In any case I shall look forward to my visit with you and your people.

Many thanks and kind regards

F. Barolo

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

THE COLLEGE OF LIBERAL ARTS

Department of Chemistry
April 15, 1960

Professor R. Ercoli
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italia

Dear Professor Ercoli:

Thank you for the information you sent me sometime ago on your researches in metal carbonyls.

Professor Sacconi has invited me to give some lectures in Palermo. I leave here April 27. On my return I plan to stop in Milan. If possible I should like to visit you and the Natta research group.

I hope to spend Wednesday, May 11 with Professor L. Malatesta at the University. Would it be possible to visit you on the following day, May 12? If you want I would gladly give a lecture entitled "Carbon Monoxide Exchange with Metal Carbonyls and Some Derivatives". My slides are the American type, 3 1/4 x 4 inches.

Please let me know if it is convenient to visit you at this time. Since your letter may not reach me in time, send a carbon copy to me in care of Professor Sacconi at Palermo.

Many thanks and kind regards.

Sincerely yours,

F. Basolo

F. Basolo

FB:me

courtesy of Mrs Chiarieb

Aug 10 1960

(over)

Dr. Giulio Natta.

I do not know whether you remember me, Amerigo Capio, Head of Technical Information Celanese Corp of America, Summit New Jersey. I had the honor of meeting you with Dr Marie Bentivoglio in 1947. You were the first scientist to sign our guest book. We were just opening the laboratory. We had lunch together, you may recall, at the Hotel Sabulan, Summit NJ.

I am retired now after 43 years with Celanese (T.C.P. - tricresyl phosphate - additive to gasoline - Shell was my invention) I am on the way to Venice on touring Europe with my sister by car. (I am now a widower) and I just wanted to stop at the Institute and say Hello to a world famous chemist. Hope you are well and best wishes

Amerigo J Capio

I shall be in Rome Aug 24-28 and Sept 5-6 Via A Morelli 10 Parioli Section Rome c/o Miss Ida Dragoni

Dr Natta

If I can do anything for you in the way of U.S. patents or ~~of~~ securing technical information in English ~~&~~ my services will be at your disposal free. I am retired and will be glad to assist a noted professor

Dr. F. Basolo
Department of Chemistry
Northwestern University
Evanston, Illinois
U. S. A.

EVANSTON
MAY 20
4 PM
1960
ILL.

U S POSTAGE
AIR MAIL 10¢

Professor G. Natta
Istituto di Chimica Industriale del
Politecnico
Piazza Leonardo Da Vinci 32
Milano
ITALY

AIR LETTER • AÉROGRAMME • PAR AVION

FIRST FOLD

SECOND FOLD

Department of Chemistry
May 19, 1960

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italia

Dear Professor Natta:

I want to take this opportunity to thank you again and tell you how much I enjoyed my visit at your home and in your institute. You certainly have an excellent institute and the research being done there is known and appreciated all over the world.

It was indeed a pleasure for me to be there and to discuss the research that we are doing at Northwestern University. I wish my Italian were good so that I might have given a better lecture. At any rate I do think they were able to understand.

Many thanks and kindest regards to you and your wife.

Sincerely yours,

F. B. Basolo

FB:cam

Risposta inviata
che mi spiace
non poter essere
presente a
questa volta
G.N.

June 20, 1960

Instituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Gentlemen:

The California Chemical Company of San Francisco, California, has inform us of your interest in m-Toluic Acid (meta-methyl benzoic acid), in view of the fact that we are the only company at the present time in the U.S. who ar producing this particular chemical. We are pleased to have the opportunity to quote you on the item and wish to advise that we can supply the quantities that you have in mind promptly.

In connection with the price, we are in a position to quote 80¢ per pound, f. New York in the standard container, a 250 pound drum. Enclosed is one of our technical data sheets covering m-Toluic Acid, but should you wish additional information, we shall be glad to supply it upon request.

In the event that you would like to have a sample of our product, we shall be glad to send it by air parcel post. Therefore, after you have had an opport to look over the data sheet, should you wish to send us a request for a samp please feel free to do so.

We are informed that you also might be interested in a mixture of ortho and meta-Toluic Acids with possibly a slight trace of the para-Toluic Acid. Fo your information, we have worked on a mixed-Toluic Acid product for some time and have made experimental quantities, however, at the moment we do not have a technical data sheet or a price that we can quote you. We will ke your letter for future reference purposes and in the near future it is quite po sible that we will be able to communicate with you regarding a mixed-Toluic Acid.

We are very glad to have the opportunity to communicate with you and if we can be of further assistance in any way, we hope you will not hesitate to sen us your request.

Very truly yours,

Frank F. Black, Manager
Chemical Division

Ringraziare !

CARNEGIE INSTITUTE OF TECHNOLOGY
CHEMICAL AND PETROLEUM RESEARCH LABORATORY
PITTSBURGH 13, PENNSYLVANIA

December 15, 1959

Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano
Italy

Gentlemen:

We are transmitting to you under separate cover, with the compliments of the American Petroleum Institute, one copy of the 1953 bound volume of the American Petroleum Institute Research Project 44 entitled "Selected Values of Physical and Thermodynamic Properties of Hydrocarbons and Related Compounds" by Rossini, Pitzer, Arnett, Braun, and Pimentel.

We hope you will find this book useful.

Very truly yours,

Frederick D. Rossini
Silliman Professor and Head, Department of Chemistry
Director, Chemical and Petroleum Research Laboratory

April 26, 1960

Dr.F.Basolo,
c/o Prof.L.Sacconi,
Istituto di Chimica Generale
ed Inorganica,
Università di
Palermo

our ref.438/lv

Dear Dr.Basolo,

Prof.Ercoli forwarded me your letter of April 15, 1960.

I shall be very glad to welcome you on May 12.

We shall be happy to hear your lecture entitled "Carbon Monoxide Exchange with Metal Carbonyls and Some Derivatives". Unfortunately Prof.Letort, General Director of "Charbonnages de France" will give a lecture in my Institute on May 12. Thus, we would suggest you, if suitable to you, to give your lecture in the morning of Friday the 13th of May.

Glad to meet you in a very near future, I send you my best thanks and regards.

G.Natta

January 27th 1960

Bell Telephone Laboratories
Incorporated
Murray Hill, New Jersey

Attention of T. Rogers
L.D. Rubbark

Dear Sirs,

According to your request of the following reprint: "Conformation of Linear Chains & their Mode of Packing in the Crystal State"; J.Pol.Sci.31, 29 (1959), we are sorry to inform you that we run short of copies and therefore we are sending the only available copy to Mr.Ronald Galovey, hoping you will manage to borrow it from him~~self~~.

Best regards.

(Secretary to Prof.G.Natta)

CHEMSTRAND
RESEARCH CENTER, INC.

Phone 8-2204

Subsidiary of The Chemstrand Corporation

BOX 731 DURHAM, NORTH CAROLINA

December 19, 1960

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politechio
Piazza Leonard Da Vinci, 32
Milano, Italy

As I will have the opportunity to be in Europe during the early part of January, I would consider it a great privilege if I could visit with you at the Institute for a short time. I still remember with a great deal of pleasure my last visit to Milan and I believe that some of the studies in our laboratories might be of interest to you and your collaborators.

Some time during the week of January 22 would probably be most suitable for me. I look forward to hearing from you in the near future.

With best personal regards,

Sincerely,

Rolf Buchdahl

Rolf Buchdahl
Director of Basic Research

RB/60-236/dj

DUKE
DURHAM
U. N. C.
CHAPEL
HILL
RESEARCH
TRIANGLE
PARK
N. C. STATE
RALEIGH

Celanese
CORPORATION OF AMERICA

BOX 1000
SUMMIT, NEW JERSEY
TELEPHONE: CRESTVIEW 3-6600

RESEARCH LABORATORIES

August 8, 1960

FPR-60-129

Prof. Giulio Natta
Instituto Chimica Industriale
Politecnico of Milano
Italy

Dear Professor Natta:

Since I was unable to listen to your paper on "Progress in Stereospecific Polymerization" at Wiesbaden in person, I was very pleased and interested in reading it in Makromolekulare Chemie 35 94 (1960). I wonder if you still have reprints available at this date and could send me one.

In this paper you indicate a considerable amount of X-ray structural work, either just published or not yet available in print. I wonder if you can place me on your mailing list for publications concerned with X-ray structural work and, in general, with papers concerned with physical measurements and correlations with mechanical properties of stereoregular polymers.

Thanking you in advance for this courtesy, I am,

Very truly yours,

CELANESE CORPORATION OF AMERICA
SUMMIT RESEARCH LABORATORIES

H. D. Noether

H. D. Noether

HDN:mc

inviate:
- Fascicolo Nuovo Cimento
- [redacted]
- 406
- 407

[redacted]

scrivere che abbiamo inviato alcuni estratti. Molti sono ancora in press - lo metteremo nella nostra mailing list -

THE UNIVERSITY OF CHICAGO
CHICAGO 37 · ILLINOIS
DEPARTMENT OF PHYSICS

Ath

18 July, 1960

Professor Giulio Natta
Instituto di Chimica Industriale
Politecnico di Milano
Milano, Italy

Dear Professor Natta;

Today I have received your answer and I thank you very much for it. I will send you the reprints of my work; I have not done it before, because some are still in Florida and Kasha (with whom I was working) is temporarily at Harvard University. This has caused a considerable and unexpected delay.

I think my work is what could be classified as Theoretical Chemistry, but this may be better decided by yourself after you have the reprints.

I shall write soon to Prof. Segre and I shall ask him to contact directly Prof. Caglioti. As soon as I have Segre's answer I shall notify you.

I am also planning to ask Prof. Kasha, Pitzer and Mulliken for reference letters on my work. These letters will be addressed to you and Prof. Caglioti.

I am planning to apply for the Libera Docenza next year. This will give me more time and in addition I will have more work done.

I thank you again for your kind interest and help. I will keep in mind your advice concerning the difficulty of obtaining a Cattedra. Consequently I shall not neglect to consider the opportunities here in the U.S.A. and Canada.

Best regards to you and your wife.

Sincerely yours,

Enrico Clementi

Enrico Clementi

P.S.: I apologize to write you in English, but my handwriting is not so good, and my typing abilities are even worse.

Cordiali saluti alla Signora Gemma. -

UNIVERSITY OF CALIFORNIA

Dr. Enrico Clementi
DEPARTMENT OF CHEMISTRY
BERKELEY 4, CALIFORNIA

25 Giugno 1960

RISERVATA PERSONALE

Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico di Milano
M i l a n o /Italy

Preg.mo Professor Natta,

fra pochi giorni inizierò un nuovo periodo di specializzazione a Chicago con il professor R.S.Mulliken. Colà continuerò a lavorare in chimica quantistica, strutturistica e spettroscopia molecolare, come feci negli ultimi cinque anni. Con il professor Mulliken rimarrò per un periodo di circa 18 mesi.

Mi è stato offerto di lavorare (dopo il periodo a Chicago) con il professor G.Herzberg in Canada. Inoltre ho avuto un'offerta dalla I.B.M. in un nuovo reparto di ricerche in fotochimica e semiconduttori organici. Però vorrei ritornare in Italia e lavorare in un centro Universitario Italiano.

Il professor Emilio Segrè si è gentilmente offerto di aiutarmi a trovare un posto in un'Università in Italia. Secondo il professore non dovrei avere difficoltà ad ottenere la libera docenza, in vista del lavoro già fatto e della mia preparazione in chimica teorica. Il professor Segrè si stà inoltre interessando per vedere se potrò avere un cattedra in chimica teorica. Inoltre ha interessato di ciò il professor Amaldi di Roma e (tramite Amaldi) il Professor Caglioti.

Mi rivolgo a Lei con questa lettera perchè Lei conosce molto bene la situazione della Chimica in Italia, anche per quanto riguarda libere docenze e cattedre.

Gradirei sapere da Lei, se si intende istituire in Italia dei corsi di chimica quantistica (al livello dei corsi in Inghilterra o in U.S.A.) o se per caso ve ne sono di già.

Le sarei grato se volesse darmi il suo parere circa le mie possibilità di ottenere una libera docenza in chimica teorica ed una Cattedra (dopo il mio soggiorno a Chicago). Inoltre vorrei pregarla di dirmi se Lei intende appoggiarmi quando si presenterà l'occasione della libera docenza ed eventuale cattedra. Io conosco ben pochi chimici in Italia e per questo un suo appoggio, come quello del professor Segrè, Amaldi e Caglioti potrebbe essermi di grande aiuto.

Credo di essere ben preparato in chimica teorica e Lei potrà giudicare questo da se dai lavori fatti e in preparazione. Penso che la chimica quantica è oggi uscita dalla sua fase iniziale e

Rispondere che sono [illegible] a [illegible] il 12 [illegible] Prof. [illegible] [illegible] entro il 31 luglio [illegible] appropriate [illegible]

diverrà sempre più necessaria nel chiarire e predire quantitativamente concetti e proprietà chimiche fondamentali. Però - per quanto ricordo - la chimica quantistica in Italia è ancora una materia un pò trascurata. Per queste penso che la mia preparazione potrebbe essere apprezzata ed utile.

Le invio alcune copie del mio curriculum vitae ed elenco dei lavori fatti o in preparazione.

Ho molta speranza in un suo aiuto e consiglio. In attesa di una Sua risposta Le porgo i miei migliori ossequi.

Distintamente

Enrico Clementi

(Enrico Clementi)

Allegati: Curriculum.

P.S. Permette che io dia fotocopia della Sua risposta al Professor Segrè?

Il mio indirizzo di Chicago sarà:

Enrico Clementi
Department of Physics
Laboratory of Molecular Structure and Spectra
University of Chicago
Chicago 37, Illinois /U.S.A.

Sept. 7, 1960

Dr. Amerigo Caprio,
C/o Sig.na Ida Dragoni,
Via A. Morelli 10,
Parioli - R o m a

Dear Doctor Caprio:

Excuse my delay in answering your letter of Aug. 10; as a matter of fact, owing to my health, I took longer holidays than usual and I have just come back to Milan.

I remember our meeting at Summit in 1947, and I also remember your kindness.

Please, let me know in advance, if you come to Milan to visit me. I shall be very glad to see you again.

I had the opportunity to meet Mrs. Bentivoglio and her niece in Milan; the latter married a Milan chemist last Summer.

Hoping to meet you in a near future, I send you my kindest regards.

Sincerely yours,

G. Natta

COWLES CHEMICAL COMPANY

ESTABLISHED 1885

MANUFACTURER OF INDUSTRIAL CHEMICALS

GENERAL OFFICES - 7016 EUCLID AVENUE

CLEVELAND 3, OHIO

VIA AIR MIAL

July 7, 1960

Professor G. Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Recently we wrote to you regarding your interest in m-Toluic Acid as a result of a suggestion from Mr. W. H. Shiffler of The California Chemical Company. The purpose of this letter is to enclose a duplicate copy in view of the fact that I am not sure that the letter was addressed to your personal attention and may not have come directly to you.

After you have had an opportunity to study the contents of the letter, should you wish a sample of our m-Toluic Acid we shall be glad to send one to you.

Very truly yours,

Frank F. Black

Frank F. Black, General Manager
Chemical Division

lt

Si interessa

ILLINOIS INSTITUTE OF TECHNOLOGY
TECHNOLOGY CENTER
CHICAGO 16

Department of Chemistry

January 15, 1960

Prof. Dr. G. Natta
Istituto Chimica Industriale
Politecnico di Milano
Milano, Italy

Dear Professor Natta:

I am scheduled to arrive at Genoa on the S.S. Augustus on February 21. I shall be going up to Munich and I will pass through Milano on my way. I am thinking of spending a day there and I would very much like to visit your Laboratory again. If the ship arrives as scheduled on Feb.21 (sunday), I will be in Milano on monday Feb.22. I would very much appreciate it if you could let me know whether this date would be convenient for you. In case you should be detained it might be possible that Dr. Danusso who knows me fairly well, could arrange to meet me at the Institute. Inasmuch as I will be leaving Chicago around Feb.5 I would greatly appreciate it if you could let me know soon.

With best regards and many thanks in advance,

Sincerely yours,

H.P. Frank

H.P. Frank

Risposta che è
Vedrò volentieri
[illegible]
[illegible]
[illegible]
[illegible]

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

December 15, 1960

Professor Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Professor Natta:

I was very sorry to hear about your recent illness but I hope that you are recovering rapidly and will soon be again in good health.

With regard to the special issue which will contain your papers and others on the subject of stereoregular polymers, we have decided to wait with this issue until receiving your papers since the issue will be built around them. We feel that your suggestion to have this issue come out on the occasion of the 7th anniversary of the discovery of isotactic polymers is an excellent one and this is what we will do. Could you let us know what/would be most suitable (date) from this point of view and we would then have to have your manuscripts in not later than four months before the appearance of this issue. Of course you might send us the manuscripts as you go along, in which case we can have most of the work finished by the time your later manuscripts arrive. So by all means send us the various papers as they are completed and we will hold them for special issue.

With best personal regards from Dr. Proskauer and myself, and all our good wishes towards your rapid recovery.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Ed Immergut

E. H. Immergut
Editor

EHI:rjb

cc: Prof. H. F. Mark
Dr. M. L. Ottolenghi

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

July 29th 1960

Professor G.Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano,Italy.

Dear Professor Natta :

I was very happy to hear from Professor Mark that you are planning to send us a set of manuscripts for publication in the Journal of Polymer Science . I understand that you would prefer to send some of the papers by September 15th and the rest at the end of September. This would be perfectly allright and all of us are greatly looking forward to your papers which are always interesting and stimulating to polymer chemists everywhere.

With best personal regards and all good wishes ,

Yours sincerely,

Ed Immergut

E.H.Immergut

EHI/e

W Sparbow

Che invia a giro
di prim' tem dell anno

Footnote:

The definitions of the erythro and threo structures of 1d, polypropylene, reported in (8), are inverted with regard to the original work(1). The corresponding figures are right, if referred to representations of the type considered in this work and shown in the schemes 5 and 17.

References:

8) N.G.Gaylord, H.F.Mark: "Linear and Stereoregular Addition Polymers", Interscience, New York, 1959, p.481-482.

Footnote:

The definition of the erythro and threo structures of 1d, polypropylene, reported in (8), are inverted with regard to the original work(1). The corresponding figures are right, if referred to representations of the type considered in this work and shown in the schemes [5] and [17].

February 23, 1960

Prof. Frederick D. Rossini,
Director,
Chemical & Petroleum Researc
Laboratory,
Carnegie Institute of
Technology
Pittsburgh 13 -Pennsylvania

/lv

Dear Professor Rossini,

I wish to thank you very much for your kind sending us infrared, ultraviolet, raman and mass spectral data for the period 1.1.59 to 6.30.59.

With my kindest regards,

Giulio Natta

February
~~January~~ 15th 1960

Frederick D.Rossini, Director
Chemical & Petroleum Res.Lab.
Carnegie Institute of Technolog
Pittsburgh 13, Pennsylvania

Dear Prof. Rossini,

We most appreciated receiving one copy of the 1953 volume :
"Selected Values of Physical and Termodynamic properties of Hydrocarbons and related compounds"
and we thank you very much for your kindness

Very truly yours

G.Natta

May 4, 1960

Mr. C.N. Sjogren, President
Chemet Engineers, Inc.
2560 E. Foothill Blvd.
Pasadena, California (USA)

our ref. 471/lv

Dear Sir,

I refer to the communication I have received from Montecatini concerning the interest your Company took in the construction of laboratory pumps in the U.S.A.

As you already know the main characteristics of these machines constructed in the workshop of my Institute, I confirm you that I may negotiate drawings and prototypes of the two types of pumps, according to the conditions which you learnt from the letter Dr. B. Orsoni wrote to you on March 21, 1960.

The business could be more easily settled, if somebody belonging to your Company has the opportunity to come to Italy.

Otherwise we could send you the two prototypes and detailed drawings against your payment in Italy of the sum which will be fixed by letter and which was already required by us in a lump sum of $ U.S.A. 60,000=.(sixty thousand)

I shall be glad to know your opinion about the whole matter.

Sincerely yours,

Prof. G. Natta
Director of the Institute

January 27th 1960

Talbot J.L.Williams
The Chemstrand Co.
General Offices
Decatur, Alabama (U.S.A.)

Dear Sir,

According to your request of the following reprint: "Conformation of Linear Chains in the Crystal State", J.Pol.Sci. 22, 29 (1959), we are sorry to inform you that we have no available copies.

With regards.

(Secretary to Prof.G.Natta)

Sept.8, 1960

Dr.H.D.Noether,
Celanese Corporation of Ameri
Summit Research Laboratories,
Box 1000
Summit, New Jersey

Dear Doctor Noether:

With regard to your letter of August 8, I wish to inform you that I have already sent you some reprints concerned with the topics you may be interested in.

Some other works are still in press: however you will receive them in the future, since I have placed you on my mailing list.

With my best regards,

Sincerely yours,

G.Natta

R.Lamma
(secretary to Prof.Natta)

dictated by Prof.Natta,
but sent during his absence.

13 Luglio 1960

Egr.Dr.E.CLEMENTI
Department of Physics
Laboratory of Molecular
Structure and Spectra
University of
CHICAGO 37 - Ill. - U.S.A.

Prot.N.732/rà

Caro Clementi,

tornato a Milano dopo un periodo di assenza all'estero, rispondo alla Sua lettera del 25 giugno.

Per poter dare un parere su quanto mi chiede, occorrerebbe che avessi una copia delle Sue pubblicationi per vedere se si possono ritenere sufficienti per affrontare l'esame di libera docenza e per decidere in quale materia potrebbe presentarsi. Nel caso che fosse Chimica Teorica, sarebbe bene sentire il parere di qualcuno che si è occupato della materia. Pensc che se il Prof.Segre scrive al Prof.Caglioti chiedendo il parere ed allegando copia delle pubblicazioni,certamente Caglioti risponderà. Il Prof.Caglioti, nella sua posizione di Membro del Consiglio Superiore del Ministero della Pubblica Istruzione e di Presidente del Comitato per la Chimica del Consiglio Nazionale delle Ricerche, ha una visione della situazione migliore di quella che posso avere io. D'altra parte io come professore di chimica Industriale, ben difficilmente sarò chiamato a far parte di Commissioni Giudicatrici in Chimica Teorica o Chimica Generale. Nel caso che il Prof.Segre no potesse scrivere a Caglioti, potrò scrivere io stesso, allegando copia delle sue pubblicazioni, se me le manda.
La consiglierei di esaminare le possibilità che ha di lavoro in America, tenuto contocche,mentre può essere abbastanza facile per lei superare un esame di Libera Docenza, ben difficile è poter giungere ad una Cattedra di professore di ruolo, dato il grandissimo numero di concorrenti e la tendeza che spesso purtroppo si verifica, che i Commissari tendono a sostenere i propri allievi.

Molti cordiali saluti a Lei e Signora.

G.Natta

4 Luglio 1960

Egr.Dr.Enrico Clementi
Department Of Chemistry
University of California
Berkeley 4 - California

Caro Clementi,

Il Prof.Natta ha ricevuto la Sua lettera del 25 giugno al momento della sua partenza per il Congresso della Catalisi di Parigi e siccome non tornerà a Milano prima del 12 p.v. mentre il termine per le Libere Docenze scade il 31 luglio, mi ha incaricata di scriverLe quanto segue.

I titoli che Lei possiede rappresentano (dal punto di vista numerico) quello che generalmente è considerato come il minimo per presentarsi ad una Libera Docenza. Dato però la qualità del lavoro, potrebbe presentarsi alla Libera Docenza in Chimica Teorica. Un'obiezione che potrebbero farLe è la mancanza di una parte didattica, e spesso viene data molta importanza ad essa.

Il Prof.Natta, al suo ritorno da Parigi Le scriverà più a lungo direttamente.

Molti cordiali saluti a Lei ed a Sua moglie e molti auguri.

R.Lamma

July 28th 1960

Mr.Frank F.Black, General Mgr.
COWLES CHEMICAL CO.
7016 Euclid Avenue
Cleveland 3 , OHIO
(U.S.A.)

our ref.722/eg

Dear Mr.Black,

Many thanks for your kind letters of June 20 and July 7, in which you give me several information on m-Toluic Acid. The m-Toluic Acid cost is too high for the foreseen usage for which it has been found a cheaper substituent.

Please excuse my delay in answering you, and accept my best regards.

Sincerely yours

G.Natta

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

February 18, 1960

Professor G. Natta
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32, Milano
Italy

Dear Professor Natta:

Thank you very much for sending me a copy of your letter of January 27 addressed to Professor Mark. I was very happy to learn that you are considering sending us these very interesting articles that you mentioned in your letter, and I would like to add my assurances to those of Professor Mark that we will do everything in our power to get these articles published as soon as possible - in other words, within four or five months after receiving them from Professor Mark's office.

You might be interested to learn that I am now teaching a course in chemistry at Brooklyn Polytechnic every Monday evening. This is a course for evening students and fits in very well with my work at Interscience because I can be in Brooklyn by six in the evening to give my lecture. I am enjoying this course very much since I have always looked forward to being associated with my old school, and also it gives me a chance to be in touch, at least once a week, with Professor Mark and my other good friends at Brooklyn Poly.

Looking forward with great pleasure to your articles and with best personal regards to you and Rosita,

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Ed Immergut

E. H. Immergut
Editor

EHI/rds

RUBBER CHEMISTRY & TECHNOLOGY

B. L. JOHNSON, ASSOCIATE EDITOR
CHEMICAL AND PHYSICAL RESEARCH LABORATORIES
THE FIRESTONE TIRE AND RUBBER COMPANY
AKRON 17, OHIO

January 13, 1960

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico,
Milan, Italy

Dear Professor Natta:

Your paper (with Paolo Corradini) on "Conformation of Linear Chains and Their Mode of Packing in the Crystal State" which appeared in the Journal of Polymer Science, 39, 29 (1959) has been recommended for republication in Rubber Chemistry and Technology. May we have your permission for republication and a reprint of the paper if you approve?

Rubber Chemistry and Technology, as you know, is the official publication of the Rubber Division of the American Chemical Society. Permission for reprinting is obtained from the Journal of Polymer Science and acknowledgment of the original publication is always made.

Very truly yours,

B. L. Johnson

B. L. Johnson

vmh/

CC: D. Craig

PUBLISHED BY THE
DIVISION OF RUBBER CHEMISTRY OF THE AMERICAN CHEMICAL SOCIETY

THEODORE O. J. KRESSER

611 - 7TH STREET
ORANGE, TEXAS
TU 3-3157

December 1, 1959

Dr. Giulio Natta

Milan Polytechnic Institute

Milan, Italy

Grazie

Vedi se non necessario consigli

Dear Dr. Natta:

I trust you will remember your kind offer last summer to assist me with your criticism of my book on Polypropylene Applications.

I am enclosing the draft of the chapter which concerns itself with the scientific aspects of polypropylene. It is almost entirely a selection from your publications, rephrased in places to be easier for a mostly non-scientific group of readers to understand. I am concerned that in this process I may have misrepresented some things, or allowed other errors to creep in.

I will greatly appreciate it if you will read it over and let me know if there are parts you think need to be changed.

You will note that what I have sent you is a copy, so that there will be no need to return any of this material, except such pages as you may wish to use to note necessary changes or corrections.

Thank you very much for your help in this matter.

Yours truly

Theodore O. J. Kresser

Theodore O. J. Kresser

UNIVERSITY OF ILLINOIS
COLLEGE OF MEDICINE
DEPARTMENT OF PATHOLOGY
1853 WEST POLK STREET
CHICAGO 12, ILLINOIS

20 Marzo 1960

risposta

Gent.mo Prof. Natta

Le sono infinitamente grato per la sua affettuosa lettera del Febbraio scorso e per gli estratti della prima conferenza della Fondazione M. G. Levi.

Sono sicuro che la seconda conferenza contribuirà a stabilire una tradizione di alto contributo scientifico nel campo della Chimica Industriale. Questo è non solo un grande onore

alla memoria di mio Padre ma anche al Politecnico e all'Istituto a cui mio Padre era così profondamente attaccato.

Non credo che mamma più alta e più bella che questa conferenza potrebbe ricordare mio Padre agli amici, ai colleghi, agli allievi.

Ancora grazie. Con cordiali saluti a lei e alla signora Rosita

Suo affmo

Corrado Gini Pirani

HEADQUARTERS

Wright Air Development Division

AIR RESEARCH AND DEVELOPMENT COMMAND
UNITED STATES AIR FORCE
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

REPLY TO ATTN. OF: WWRCNP (Dr. Lovelace)

14 OCT 1960

SUBJECT: Request for Reports

TO: Istituto Di Chimica Industriale
Del Politechnico
ATTN: Dr. G. Natta
Piazza Leonardo Da Vinci 32, Milano
Italy

1. In answer to your request of 30 September 1960 for reprints of the work entitled "Synthesis and Evaluation of New Polymers Prepared by Stereospecific Catalysis" and "Fluorine-Containing Condensation Polymers and Resins". I am attaching all the reports which we have available on these subjects. We do not have a list of our publications which we can supply to you, however, I am attaching a copy of our last general conference. Should you have an interest in any particular areas we can then see if more definite reports are available covering the work.

2. I appreciate the offer of a list of your publications and am looking forward to receiving it.

A. M. Lovelace

A. M. LOVELACE
Chief, Polymer Branch
Nonmetallic Materials Laboratory
Materials Central

3 Atch
1. WADC TR 55-221, Pt I, II, III, IV, V, VI
2. WADC TR 58-382, Pt I, II, III
3. WADC TR 59-427, 1 cy

Update Lists 1955-1960

January 20, 1960

Dr. H. P. Frank,
Department of Chemistry,
Illinois Institute of Technol
Technology Center
Chicago 16 (U.S.A.)

our ref. 48/lv

Dear Dr. Frank,

With regard to your letter of January 15, I inform you that I shall be very glad to meet you on February 22, if my engagements allow me to be in Milan on the day.

In any case, Prof. Danusso will welcome you here and show you my Institute.

With my best regards.

G. Natta

December 19th,1960

Prof.E.H.Immergut
Interscience Publishers, I
250 Fifth Avenue,
New York 1, N.Y.
(U.S.A.)

Dear Professor Immergut,

Thank you for your letter of December 15th. I am glad that you agree with our suggestion to publish the special issue which will contain our papers on the subject of stereoregular polymers, on the occasion of the 7th anniversary of the discovery of isotactic polymers.

We discovered the first isotactic polymers during the first months of 1954, but the first patent on the subject was filed in June 1954. Therefore I think that the special issue can come out in June 1961.

Some papers are ready; however I did not send them to you yet, since the complete rest phisicians prescribed me has not allowed me to revise them after their translation into English, as I want to.

With my best personal regards to you and Dr.Proskauer, I am

Sincerely yours

G.Natta

Sept. 7, 1960

Prof. E. H. Immergut,
Interscience Publishers, Inc.
250 Fifth Avenue, New York 1
(U.S.A.)

our ref. 820/lv

Dear Professor Immergut:

Thank you for your kind letter of July-29th, concerning the publication of a set of works of mine in the Journal of Polymer Science.

I shall send you the first works of this set within some days.

With my best regards,

Sincerely yours,

G. Natta

Aur.

May 12, 1960

Dr.E.H.Immergut, Editor
Interscience Publishers, Inc.
250 Fifth Avenue,
New York 1, N.Y. (USA)

:lv

Dear Doctor Immergut:

I am writing to you wishing to ask you a favour. I would very much appreciate receiving the reprints of the paper:

P.Corradini, P.Ganis:"Chain structure of poly-m.methylstyrene"

within next June.
We sent the galley-proofs of this paper back to Polymer Science on January 28.

If you think it is impossible for you to have the reprints sent before the end of June, I hope you will be able to send us at least 10 preprints of the paper.

Thanking you in advance for your kindness, I send you my best regards.

Sincerely yours,

G.Natta

25th March 1960

Dr.E.H.Immergut, Editor
Interscience Publishers,Inc.
250 Fifth Avenue,
New York 1, N.Y. (U.S.A.)

our ref.321/lv

Dear Dr.Immergut,

the day before yesterday, I sent back to the Journal of Polymer Science, the paper:

G.Natta, M.Farina, M.Peraldo: "Proposed Nomenclature of di-isotactic Polymers".

I would most appreciate that, if it is still possible, the following sentence is added, as a footnote, at the end of page 4 of the manuscript:

"The definitions of the erythro and threo structures of 1d polypropylene, reported in (8), are inverted with regard to the original work(1). The corresponding figures are right, if referred to representations of the type considered in this work and shown in the schemes [5] and [13] ."

Furthermore, in the references, should be added a reference No.8, that is:

"8) N.G.Gaylord, H.F.Mark: "Linear and Stereoregular Addition Polymers", Interscience; New York, 1959, p.481-982."

I most apologize for the trouble I give you, and I send my kindest regards to you and to Mrs.Immergut.

Sincerely yours,

G.Natta

March 28, 1960

Dr. E. H. Immergut, Editor
Interscience Publishers, Inc
250 Fifth Avenue,
New York 1, N.Y. (U.S.A.)

/lv

Dear Professor Immergut,

following Professor Natta's letter of March 25, 1960, I am sorry to inform you that one of the numbers of the schemes quoted in the footnote is wrong.

Here is the correct text of the footnote to be added at the end of page 4 of the manuscript of the paper:

G. Natta, M. Farina, M. Peraldo: "Proposed Nomenclature of di-isotactic Polymers":

Footnote:

"The definition of the erythro and threo structures of 1d, polypropylene, reported in (8), are inverted with regard to the original work(1). The corresponding figures are right, if referred to representations of the type considered in this work and shown in the schemes [5] and [17]."

I am so sorry for this unlucky accident, and I hope you will be able to have the text corrected.

Thanking you very much for your courtesy, I send you my kindest regards.

Very truly yours,

End

February 25, 1960

Dr. A. H. Emmergut, Editor
Interscience Publishers, Inc.
250 Fifth Avenue,
New York 1, N.Y. (U.S.A.)

our ref. 162/lv

Dear Dr. Emmergut,

thank you for your letter of February 18, and for your kind assurance to look my articles publish= ed in a short time.

I was delighted to hear that you hold a course of lectures at the Polytechnic of Brooklyn. I congratulate you upon the interesting office you have been asked to. From your letter, I understand that you undertook your task with much enthusiasm: your actual competence in chemistry and your learners in it, will sure= ly bring you plenty of success.

To you and to Mrs. Emmergut, Rosita and I send our kindest regards.

Sincerely yours,

G. Natta

"POLYMER"
INDUSTRIE CHIMICHE SOCIETÀ PER AZIONI
CAPITALE L. 4.500.000.000 I. V.
SEDE IN MILANO - VIA F. TURATI, 18

MILANO, 29 dicembre 1959

Chiarissimo Sig.
Prof. Giulio NATTA
Istituto di Chimica Industriale
Politecnico di
MILANO
P.zza Leonardo Da Vinci, 32

RIFERIMENTI
NS DIREZIONE GENERALE
VS

Chiarissimo Professore,

Mr. James M. Margolis della Chemical Marketing & Research Co.

Questo signore mi ha scritto che, per mezzo Suo, é venuto a conoscenza della nostra possibilità di fornirgli dei polimeri stereoblocchi atattici di propilene con un peso specifico intorno a 0,9 ed un peso molecolare intorno a 3000-4000.

Desidererei sapere se Ella é del parere di fornire a questo signore informazioni sulle analisi tipiche di questo materiale ed un piccolo campione per prove.

Rimango in attesa di Sue cortesi precisazioni.

Ossequi.

Ing. Silvio Larcher

Ritorniare nostra lettera a Margolis e poi rispondere a Larcher N.

DEPARTMENT OF CHEMICAL ENGINEERING
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS

Ann.

August 18, 1960

Prof. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Prof. Natta:

I wish to thank you very much for the gracious hospitality which you extended me this past July when I visited your laboratories. Dr. Pegoraro conducted me on a very interesting and informative tour of your facilities, which impressed me very much. I look forward to future professional contact with you and your group. Good luck.

Yours truly,

Allan S. Hoffman

Allan S. Hoffman
Chemical Engineer

ASH:lgg

Buoni auguri!

non ancora
responded

DEPARTMENT OF CHEMICAL ENGINEERING

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE 39, MASSACHUSETTS

Room 12-184
May 6, 1960

Dr. Giulio Natta
Instituto Chimica Industriale
del Polytecnico di Milano
Milano, Italy

Dear Dr. Natta:

I am going to be making a trip to Italy this July and would like very much to be able to visit your laboratories. At present, my schedule is so indefinite that I cannot say exactly when I shall be in Milan. However, I wanted to write you in advance so that this letter could serve as an introduction in the event that I am fortunate enough to visit your laboratories. In any case, I am certainly looking forward to meeting you and your colleagues.

Yours truly,

Allan S. Hoffman

Allan S. Hoffman
Assistant Professor
Chemical Engineering

ASH:hlw

P.S. Although you probably do not remember, I had the pleasure of meeting you in Nottingham, England in July, 1958. I have also talked with Enico Galeazzo here at M.I.T. I believe he works in your laboratory.

ASH.

Spero che mia lettera si puo comprendere (e leggere); sto studiando l'italiano adesso, ma non ho basta di corraggio di scrivere tutti in italiano.

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

Ann

July 29, 1960

Chiar.mo Prof. G. NATTA
Istituto di Chimica Industriale del Politecnico
Milano
Piazza Leonardo da Vinci 32
MILAN, ITALY

Egregio Prof. Natta:

Mille grazie delle interessantissime pubblicazione e della Sua gentile lettera.

Il mio itinerario è ora fissato e posso perciò proporLe una data per la mia visita al Suo Istituto. Il giorno più comodo per me sarebbe lunedì, il 19 Settembre. È conveniente per Lei, questo giorno?

Spero di arrivare a Milano nella serata del 16 Settembre e, se Lei vuole, potrei telefonare al Suo ufficio la mattina del prossimo giorno (sabato) per fissare l'ora esatta della mia visita.

RingraziandoLa per la Sua cortesia, Le invio destinti ossequi —

Bernard D. Coleman

Bernard D. Coleman
Senior Fellow

BDC:mk

Il giorno stato giusto? Probabilmente Che lei non ci sarà

Tempo

Vedere con il sig. Prof. non c'è assistente

February 10, 1960

Th. Kresser, Esq.
611 - 7th Street,
Orange - Texas (U.S.A.)

our ref. 1252/lv

Dear Mr. Kresser,

according to your desire, I examined your book on Propylene Applications, and found it quite well written. On the whole, all your statements are correct. However, to be precise, I remind you the right spelling of the Italian words, at the very beginning of your paper, i.e. "Istituto di Chimica Industriale del Politecnico".

The scientific modifications I would suggest, concern, first, a sentence in the last paragraph on page 14: instead of

"Figure 3-6 shows a diagram of two of four possible spiral arrangements"

I believe it is better to write:

"Figure 3-6 shows a diagram of the two possible spiral arrangements".

Second, at the beginning of page 16, I would substitute the sentence:

"There are actually two kinds of right handed helices and two left handed ones, but they occupy about the same space and can substitute for each other in the crystal."

with new sentences sounding as follows:

"In the crystals, the two enantiomorphous spirals are present in equal quantities. There are two possible orientations for each of them, one with the CH-CH_3 bond in the up direction, and the other with the CH-CH_3 bond in the down one. Isomorphous spirals differing in the orientation of the CH-CH_3 bond occupy about the same space and can substitute for each other in a crystal".

With my best wishes and regards.

G. Natta

5 maggio 1960

Egr.Prof.Corrado Levi Pirani
University of Illinois
College of Medicine
Department of Pathology
1853 West Polk Street
Chicago 12, Illinois
(U.S.A.)

s.rif.308/eg

Caro Professor Corrado,

La ringrazio molto per la Sua gentile lettera del 20.3 alla quale ho tardato a rispondere perchè volevo informarLa circa la II conferenza che verrà fatta per la Fondazione M.G.Levi.

Eravamo in corrispondenza con il Premio Nobel Prof. Hinselwood, specialista della catalisi, che in un primo tempo aveva lasciato sperare di poter venire a Milano. A causa però della sua nomina a Presidente della Società Chimica Inghese, ha dovuto rinunciarvi per i nuovi impegni.

Sono lieto di poterLa informare ora che la II conferenza verrà fatta dal Premio Nobel Prof.Robinson nel prossimo autunno.

Se sarà possibile cercherò di fare in modo che abbia luogo nell'anniversario della data della scomparsa di Suo Padre.

Desidero informarLa che abbiamo distribuito degli estratti della I conferenza agli amici di Suo Padre. Le commoventi lettere che ho ricevuto attestano che Suo Padre aveva molti amici che lo ricordano con grande ammirazione.

Molti cordiali saluti.

Giulio Natta

February 10, 1960

Dr. B. L. Johnson, Ass. Editor
Chemical and Physical
Research Laboratories,
The Firestone Tire and Rubber
Co.
Akron 17, Ohio

our ref. 37/lv

Dear Mr. Johnson,

with regard to your letter of January 13, 1960, I wish to inform you that my work: "Conformation of Linear Chains and their Mode of Packing in the Crystal State" which appeared in J. Polymer Sci. 39, 29 (1959), is rather out of date, having been written at the beginning of 1958.

Recently, in a special issue of "Nuovo Cimento" we published in English a set of works on the structure chemistry. Thus I would suggest you to publish two articles which appeared in the above-mentioned issue, in "Rubber Chemistry and Technology", and more precisely:

G. Natta, P. Corradini - General Considerations on the Structure of Crystalline Polyhydrocarbons.

G. Natta, P. Corradini - The Crystal Structure of Cis 1,4 Polybutadiene.

In the case you are interested in this publication, I send you, under separate cover, a copy of the issue of "Nuovo Cimento".

The Editor of the review agrees to see these papers published in your journal, on condition that they bear the precise indication: "Reproduced from the Supplement to the 15th volume, series X, of "Nuovo Cimento", 1960, No. 1, 1st quarter."

With my kindest regards.

G. Natta

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

May 17, 1960

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italia

Dear Prof. Natta:

Thank you very much for your kind letter of May 6 and for the permission to visit your laboratory when I pass through Milan.

It is possible that I shall be in Milan not only for a day during the week of September 12 but also for another day during the week of September 19. When my travel schedule is fixed I shall write to you again suggesting a definite date for coming to your laboratory.

With most cordial regards,

Sincerely yours,

Bernard D. Coleman

Bernard D. Coleman
Senior Fellow

BDC:mk

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

May 2, 1960

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am a research scientist at the Mellon Institute doing work in continuum mechanics and the physical chemistry of polymers. For the next academic year I will be in Rome at the mathematics institute of Prof. Picone: il Istituto Nazionale per le Applicazioni del Calcolo. On my way to Rome I should very much like to stop in Milan and visit your laboratory to discuss with the research people problems of mutual interest.

Would it be alright with you if I were to come to your laboratory one day during the week of September 12, 1960? Although I am in no hurry to fix the exact date, I am anxious to know whether a visit at about that time would be agreeable to you. My trip to Europe will be supported by the U. S. Government and I must, in the very near future, fill out various applications which ask for an outline of my itinerary with approximate dates.

With this letter I am enclosing some reprints of articles on those of my research activities which might be of interest to the people at your laboratory.

It is with much pleasure that I look forward to the prospect of meeting you. With cordial regards,

Sincerely,

Bernard D. Coleman

Bernard D. Coleman
Senior Fellow

P. S. If it is more convenient, please reply in Italian.

BDC:mk

Enclosures: 3

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH, PA.

21 March 1960

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALIA

Dear Professor Natta:

I am much in debt to you for favoring me with a complete set of reprints of your original scientific contributions. This collection of your many notable achievements will be of great value, I assure you--especially so since many of them have not been readily available to us.

Your pioneering investigations on stereospecific polymers and polymerizations have opened up a vast area of science and technology, whose limits are not yet in sight. The great interest in this field which has developed since your preliminary paper appeared in the Journal of the American Chemical Society five years ago should be a source of great satisfaction to you.

Please accept my sincere thanks for the complete set of your scientific works.

With high esteem and kindest personal regards, I am

Sincerely,

Paul J. Flory

Paul J. Flory

Sept. 30, 1960

Dr. A. M. Lovelace, Chief
Polymer Branch
Non metallic Materials Div.
Materials Laboratory
Wright Air Development Div.
Air Research and Develop. Comma
U.S. Air Force
Wright-Patterson Air Force Ba
Ohio (U.S.A.)

Dear Dr. Lovelace:

if possible, I would very much appreciate receiving a copy of the reprints of the two papers entitled:

C. G. Overberger: "Synthesis and evaluation of new polymers prepared by stereospecific catalysis".

D. Kautson, J. J. Kolanc, J. E. Wier, E. V. Goninlock: "Fluorine-Containing condensation polymers and resins"

and also the general list of the works you have published.

In the case you are interested in some of our works, I send you, under separate cover, a list of papers published by my Institute in the field of stereospe= cific polymerizations.

Thanking you in advance, I send you my best regards.

G. Natta

30 Gennaio 1960

Egr.Ing.S.LARCHER, Direttore
Società POLYMER

S E D E

Prot.N.1318/rl

Oggetto : Mr.James M.Margolis della Chemical Marketing & Research Co.

Con riferimento alla Sua lettera del 29.12.1959, penso che si,possano mandare dei campioni del prodotto che normalmente ottenete a Terni come sottoprodotto della produzione del polipropilene, ossia il polimero solubile che viene separato, qualora eliminiate la parte solubile per ottenere un prodotto altamente isotattico per la filatura.

I migliori saluti.

(Prof.G.Natta)

May 11th 1960

Prof. Allan S.Hoffman
Massachusetts Institute of Technology
Cambridge 39, Massachusetts
(U.S.A.)

our ref.500/eg

Dear Professor Hoffman,

With regard to your letter of May 6, 1960, I am glad to inform you that you may visit us and my Institute on your trip to Italy. I only suggest you not to come here in August, being the Institute closed for summer holidays.

If I am out of town during ~~the~~ your ~~period~~ visit, you may address yourself to Dr.Crespi or Prof. Pasquon who will be very glad to accompany you in your visit to the Institute.

Sincerely yours

G.Natta

Ann

May 25, 1960

Dr. R. D. Coleman,
Mellon Institute,
Pittsburg 13, Pennsylvania (U

Dear Dr. Coleman,

thank you very much for the reprints of your papers which were very much appreciated.

Under separate cover, I send you some reprints which, I hope, will be of some interest for you. They especially deal with the works accomplished in my Institute in the mechanical field.

Very truly yours,

G. Natta

May 6, 1960

Dr. Bernard D. Coleman,
Senior Fellow,
Mellon Institute,
4400 Fifth Avenue,
Pittsburgh 13, PA (USA)

our ref. 491/lv

Dear Dr. Coleman,

with regard to your kind letter of May 2, I am sorry to inform you that most probably I shall be in Wien, during the week of September 12, to attend the Conference of the Verein Österreicher Chemiker.

However, even if I am out of town, you can come and visit my Institute, accompanied by a co-worker of mine.

I sincerely thank you for the interesting reprints you kindly sent me.

With my best regards,

G. Natta

Dec. 20, 1960

Prof. P. J. Flory,
Buckingham Road,
Fox Chapel,
Pittsburgh 15, Pa (USA)

our ref. 1075/lv

Confidential

Dear Professor Flory:

I wish to thank you and Mrs. Flory for your kind season's greetings which were the first I got from the U.S. this year.

Last October I was to undergo a rather difficult surgical operation, after which I was compelled to spend a long period of rest. That made me delay the publication of some papers dealing with works developed in our Institute.

I believe it may be of some interest to you to learn that, after many years of research, we succeeded in obtaining the asymmetric synthesis of optically active polymers from monomers which do not contain asymmetric Carbon atoms. Such a result has been obtained by polymerization of monomers, e.g. of the type:

R-CH=CH-CH=CHR'

in the conditions in which monomeric units of the following type are formed:

$$\left[-\underset{R}{HC}-CH=CH-\underset{R'}{CH}- \right]_n$$

We have obtained sterically regular polymers both with regard to the cis-trans isomery of the double-bond, and with regard to the optical isomery of the two tertiary carbon atoms. Such polymers have been obtained using particular catalysts acting with an-ionic mechanism, and possessing an optically active counterion.

I beg you to consider this piece of news confidential up to its publication. Since you belong to the Editorial Board of the Journal of American Chemical Soc., I would like to learn whether you think that a communication to the Editor may be published in the above-mentioned Journal fairly soon, and whether you think it convenient that I send

Dec. 20, 1960

2nd sheet

it directly to you, in order to avoid any waste of time. I should also be much obliged to you if you would kindly revise our English translation of this Communication to the Editor.

In this communication I would also give a detailed description of the polymerization conditions and of the results obtained using different monomers and different types of catalysts.

The interest of this work derives from the high yield in the asymmetric synthesis of these polymers, whereas, in general, in the (catalytic non enzymatic) asymmetric synthesis of low-molecular-weight substances, yields are very low.

I wish to inform you that I have already sent a Communication to the Editor of the Italian journal: Chimica e Industria, in which the obtainment of a tritactic optically active polymer is reported, but the catalysts employed have not been indicated. I think that this does not constitute an obstacle for the new communication to the Editor.

Hoping to hear from you on this matter, I send you my kindest regards and my best thanks.

Sincerely yours,

G. Natta

April 1, 1960

Professor P.J.FLORY
Mellon Institute
4400 Fifth Avenue
Pittsburgh, PA. (U.S.A.)

our ref.309/rl

Dear Professor Flory,

thank you verymmuch for your kind letter of March 21 and for the kind words you addressed to me and to the research works we are developing. I was most delighted to read them since they are told by one of the most outstanding scientists in the field of high polymers.

A great number of American chemists, associated with local Companies, still try not to acknowledge the priority of our works, probably for reasons of patents policy, but we think that many misunderstandings will be cleared up in a near future.

If an opportunity arises for you to come to Europe, we would be much honoured to welcome you in Milan, and particularly if you may hold a lecture.

Kindest regards to you and to Mrs. Flory, also from my wife.

Sincerely yours,

Giulio Natta

March 9th, 1960

Prof. P.Flory
Executive Director of
Mellon Institute
4400 Fifth Avenue,
Pittsburgh, 13 Pa. (U.S.A.)

our refs.235/cg

Dear Professor Flory,

With great pleasure I am forwarding to you, through the courtesy of Mr.Lucini, of Chemore Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytechnic Institute on stereospecific polymerization and stereoregular polymers.

I hope that this collection may be useful to you for reference, since, till now, these papers were rather scattered in many journals. Many of them were published in European reviews having a small circulation in the United States.

With my best personal regards, I am,
Sincerely yours,

G.Natta

Am

METAL & THERMIT CORPORATION

Research Laboratory

P. O. BOX 471 • RAHWAY, N. J.

Telephone: FUlton 1-3000

Monaco

Jan. 6, 1960

Messrs. G. Natta and P. Carradini
Polytechnic Institute of Industrial
Chemistry
Milan (Italy)

Dear Sirs:

We are interested in securing a copy of our paper on

"The Structure of New Organometallic Complexes of Titanium"

which was presented at the 17th International Congress of Pure and Applied Chemistry in Sept. 1959.

Thank you for your attention in this matter.

Very truly yours,
METAL AND THERMIT CORPORATION
Marguerite Moran
(Miss) Marguerite Moran
Tech. Info. Supervisor

MKM/m

METAL & THERMIT CORPORATION

Research Laboratory

P. O. BOX 471 • RAHWAY, N. J.

Telephone: FUlton 1-3000

Jan. 6, 1960

G. Natta, G. Mazzanti, U. Giannini
Polytechnic Institute of Industrial
Chemistry
Milan (Italy)

Dear Sirs:

We are interested in securing a copy of your paper on

"Catalytic Activity of some Organometallic Complexes in the Polymerisation of Vinyl Monomers"

which was presented at the 17th International Congress of Pure and Applied Chemistry in Sept. 1959.

Thank you for your attention in this matter.

Very truly yours,
METAL AND THERMIT CORPORATION
Marguerite Moran
(Miss) Marguerite Moran
Tech. Info. Supervisor

MKM/m

MINNESOTA MINING AND MANUFACTURING COMPANY

CENTRAL RESEARCH DEPARTMENT
3M HOUSE
WIGMORE STREET
LONDON, W.1, ENGLAND
TELEPHONE HUNTER 5522

L.O./2E-67

May 24, 1960
(dict. May 23)

Prof. G. Natta,
Instituto di Chimica Industriale del Politecnico,
Piazza Leonardo da Vinci 32,
Milano,
Italy.

Dear Prof. Natta,

It has been quite some time since I had the pleasure of visiting you at your home in Milano and another half year also since I last talked to you at the Wiesbaden polymer meeting where you gave us such a wonderful new paper and a series of further interesting new notes in cooperation with some of your coworkers.

Meanwhile I had hoped to see you at Bad Nauheim where we had an interesting meeting on plastics and polymers a few weeks ago and I only hope that it was not for reasons of health that you did not join us there. I was asked by my Company to present in German a paper on our American work in the area of fluorochemical elastomers and in view of your past wide interest in this area I would imagine that some of its contents may not be new and interesting to you because we have been reviewing the whole area and work since the end of the war. On the other hand, some of the developments of my own Company have not been mentioned in public before and it is therefore possible that you may still be interested in parts of the enclosure. I am sending you the original English text rather than the German version and would be grateful if you would let us have any comments or questions we would be able to answer.

Needless to say my colleagues and I are all very much impressed with the progress of elastomer work done under your guidance by the Montecatini group. I saw the latest exhibits at the Milano Fair and was also interested in learning of Montecatini's American venture.

With kind personal regards also to Mrs. Natta,

Yours sincerely,

Dr. A.E. Laurence
Manager, European Office
Central Research

AEL/MAM
Enclosure

MINNESOTA MINING AND MANUFACTURING COMPANY

GENERAL OFFICES • 900 BUSH AVENUE • SAINT PAUL 6, MINNESOTA • TELEPHONE PR. 6-8511

CENTRAL RESEARCH DEPARTMENT

2301 HUDSON ROAD

ST. PAUL 19, MINNESOTA

September 12, 1960

Dr. G. Natta
Institute of Industriele Chemistry
Polytechnic of Milan
Milan, Italy

Dear Dr. Natta:

We are very much interested in the address - "Stereospecific Polymerization" - which you gave at the Polymer Symposium in Moscow in June 1960 but the only copy we have is in Russian. We would appreciate very much your sending us a copy of your original manuscript, if you have one to give out. If not, could you lend us your original so that we may make a copy of it and return it to you promptly.

Any help you would give us on this matter will be greatly appreciated.

Very truly yours,

Don T. Ho

Don T. Ho
Librarian

DTH:FM

Where the version published in Polymer Symposium [illegible] Offprint [illegible] copy available [illegible] Rapi!

"MONTECATINI"
SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA
MILANO

Milano, 9 Dicembre 1960

Egregio Professore,

l'ing. Giustiniani mi ha trasmesso la lettera del 27 Novembre u.s. della Moulded Products Ltd a Lei diretta, invitandomi a rispondere direttamente ed a farLe pervenire copia della risposta.

Ho quindi provveduto e Le trasmetto pertanto copia della lettera in data odierna diretta alla Moulded Products Ltd.

Gradisca i miei migliori saluti.

(Giovanni Lombardo)

Egr.
Sig. Prof. G. NATTA
c/o Politecnico
Piazza L. Da Vinci, 32
MILANO

Ann

June 6, 1960

Dr. A. E. Laurence,
Minnesota Mining and
Manufactoring Co.
Central Research Dept.
3 M House
Wigmore Street,
London W.1.

our ref.566/lv

Dear Doctor Laurence,

thank you for your letter of May 24 and for sending me your paper on the work accomplished by your Company in the area of fluorochemical elastomers.

I have read it with great interest also because of the clearness with which it is written and with which the problems are defined.

Even if I think that fluorine elastomers are rather expensive products and therefore they are not susceptible of a very wide consumption, nevetheless they may acquire a remarkable importance for special uses. I am convinced that new products with improved properties will be found in future owing to the great number of researchers dealing with this field.

Kind regards,

Yours sincerely,

G. Natta

NATIONAL SEAL DIVISION
Federal-Mogul-Bower Bearings, Inc.
General Offices: Redwood City, California

November 28 1960

Airmail

File: I, Lib

Industrial Chemistry Institute
Milan Polytechnic
Polymer Division
Milan, Italy

Gentlemen:

We would be greatly interested in the articles listed on enclosure, which deal with olefinic polymerizations.

Unfortunately, our Research Chemical Staff does not read Italian and these articles do not seem to be translated in English.

Our questions are:

1. Are these articles published in some German or French magazines? These languages would be satisfactory for us. If this is the case, would you kindly indicate which magazines these are?

2. Would you kindly suggest European technical library (or similar organization in Germany, Switzerland, France or Belgium -- probably also in England) which can assist us in the search?

Thank you very much.

Sincerely,

NATIONAL SEAL DIVISION
Federal-Mogul-Bower Bearings, Inc.

Louis Janik

Louis Janik
Research Chemist

LJ/mm

Natta, Massanti, Valvassari, Pajaro:
"Copolymerization of Ethylene with Aliphatic A-Olefins"
Chim e. Ind. 39, No. 9, 733-743 (1957)

Massanti, Valvassari, Pajaro:
"Ethylene with Aliphatic A-Olefins. Part II. Reactivity Ratios of Ethylene and Propylene during Copolymerization in the Presence of Catalysts from Vanadium Oxychloride and Aluminum Alkyl"
Chim e. Ind., 39, No. 9, 743-748 (1957)

Massanti, Valvassari, Pajaro:
"Ethylene with Aliphatic A-Olefins. III. Ethylene-Propylene Copolymerization with Vanadium Tetrachloride Catalysts"
Chim e. Ind., 39, No. 10, 825-31 (1957)

Natta, Valvassari, Massanti, Santori:
"Copolymerization of Ethylene with Aliphatic A-Olefins. Part 4, Ethylene Propylene Copolymerization by Means of Vanadium Cl_3 Catalysts"
Chim e. Ind. 40, 717-24 (1958)

Natta, Valvassari, Massanti, Santori:
"Copolymerization of Ethylene with Aliphatic Olefins. V. Ethylene-Propylene Copolymerization by Means of Titanium Halide Catalysts"
Chim e. Ind. 40, 896-905 (1959)

Natta, Massanti, Valvassari, Pajaro:
"Copolymerization of Ethylene with Aliphatic A-Olefins. IV. Copolymerization of Ethylene with 1-Butene"
Chim e. Ind. 41, 764 (1959)

Natta, et. al.:
"Stereospecific Polymerization of A-Olefins."
Chim e. Ind. 38, 124-27 (1956)

Natta:
"Ethylene Polymerization Catelysed by Titanium Compounds"
Chim e. Ind. 39, No. 12, 1032 (December 1957)

Natta, Pino, Massanti, Longi:
"Stereospecific Polymerization of A-Olefins. Part 2. First Synthesis of Linear Isotactic and Non-isotactic Polymers of Propylene"
Gass. Chem. Ital. 87, No. 5, 549-569 (1957)

Natta, Pino, Massanti:
"Stereospecific Polymerization of Olefins. Part III. Polymerization of Propylene with Catalysts having Diverse Stereospecificity "
Gass. Chim. Ital. 87, No. 5, 570-585 (1957)

Natta, Pino, Massanti, Giannini, Mantica, Peraldo:
"Use of Decylopentadiene derivatives of Titanium for the Low-Pressure Polymerization of Ethylene"
Chim e. Ind. 39, No. 1, 19-20 (1957)

Natta, Pasquon, Giachetti, Pajaro:
"Kinetics of the Polymerization of Propylene with Heterogeneous Catalysts of Elevated Stereospecificity. Note V. Study of the Chain Transfer Processes using Aluminum Alkyls Labeled with C^{14}"
No further refs.

Natta, et. al.:
"Stereospecific Polymerization of A-Olefins. Part I."
Gass. Chim. Ital. 87, pp. 528-548 (1957)

Natta, et. al.:
"Isotactic and Stereoblock Polymers of Propylene"
Chim e. Ind. 39, No. 4, pp. 275-83 (1957)

Massanti:
"Copolymerization of Ethylene with Aliphatic A-Olefins. Part II. Reactivity Ratios of Ethylene and Propylene in Copolymerization in the Presence of Catalysts Prepared from $VOCl_3$ and Al trialkyls"
Chim e. Ind. 39, 743-748 (1957)

Natta, Parri, Corradini, Morero:
Stereospecific polymerization of conjugated diolefins. Note I. "Preparation and structure of Polydiolefins with 1, 4-trans Linkage"
Chim e. Ind. 40, 362-371 (1958)

Natta, Damusso:
"Stereospecific Polymerization of Styrene. Paper I. Data and Problems on Crystalline Polystyrenes."
Chim e. Ind. 40, No. 6, 445-450 (1958)

Natta, Pasquon, Pajaro, Giachetti:
"Kinetics of the Polymerization of Propylene by Means of Heterogenous Catalysts with High Stereo-specificity. IV. Kinetic Determination of Active Centers."
Chim e. Ind. 40, No. 7, 556-560 (1958)

Natta, Guildo:
"Chlorides and Various Al trialkyls".
Gass. Chim. Ital. 88 No. 2, 219-228 (1959)

Natta, et. al.:
"Elastomeric Properties of Ethylene Propylene Copolymers"
Chim. e. Ind. 41 (1959)

Natta, et. al.:
"Stereospecific Polymerization of Conjugated Diolefins. Note IV. Preparation of Syndiotactic 1, 2 Polybutadiene."
Chim. e. Ind. 41 526-33 (1959)

Natta, et. al.:
"Stereospecific Polymerizations on Conjugated Diolefins. II. Polymerization of Butadiene with Catalysts Prepared from Al Alkyls and Soluble Vanadium Chlorides."
Chim. e. Ind. 41, 116-22 (1959)

JOHNSON/S WAX

S.C. JOHNSON & SON, INC. Racine, Wisconsin

ESTABLISHED 1886

AIR MAIL

April 18, 1960

Professor Giulio Natta
Istituto Di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Prof. Natta:

I refer to your letter of March 21, reference 296/eg. I appreciate the opportunity to visit your laboratories accompanied by a coworker of yours on Thursday morning, June 9.

I will honor your request for security and secrecy of your research program and respect the privilege of visiting your laboratories.

Thank you for your kind courtesy. I will expect to be in Milan to take advantage of the privilege of visiting your institute.

Sincerely yours,

S. C. JOHNSON & SON, INC.

John W. Pearce
Applied Research Director

JWP/hu

PLENUM PRESS, INC.

227 West 17th Street • New York 11, N. Y. • CHelsea 2-3304

August 15, 1960

Industrial Chemistry Research Centre
Istituto di chimica industriale del Politecnico
Piazza Leonardo da Vinci,
Milan, Italy

Gentlemen:

Plenum Press has published the Proceedings and collected papers of many learned societies in the United States. Among these are the American Astronautical Society and The Society for Industrial Microbiology, in addition to which we have published the Proceedings of The Cryogenic Engineering Conferences, The Annual Conference on Applications of X-Ray Analysis, The Conference on the Exploding Wire Phenomenon and The Conference on Writing and Publication in Industry.

We would very much like to publish and distribute the Proceedings or collected papers of your organization.

We can offer thorough dissemination of the Work of your organization, for, in addition to using means immediately available to other publishers, we maintain a list of almost 100,000 names of previous purchasers of our publications. In addition, we offer a financial arrangement with a substantial advance payment which can be used to help defray the costs of your organization.

Publication of the Proceedings can be guaranteed within 120 days of receipt of manuscript. This is possible because we are a fully integrated publishing operation - maintaining our own composition and printing facilities.

Mr. Earl Coleman, the President of our organization will be in your country during the month of October. We would at that time be highly pleased to submit what I am sure will be a very attractive and interesting proposal.

Please let us know whether Mr. Coleman can visit you, and what time and date would be best suited for you.

Very sincerely yours,

PLENUM PRESS, INC.

Martin B. Gordon

Martin B. Gordon
Editor-in-Chief

MBG:gm

2612NY CHEMORE

TELEX NO 380 SEPT 7,1960

16-T

GABBROPROS

PROF G NATTA ET ING B ORSONI

DOTT IMMERGUT DI INTERSCIENCE PUBLISHERS ET PROF MARK AVVERTONO

CHE ARTICOLI PER NUMERO SPECIALE DICEMBRE 1960 DEDICATO

PROF NATTA DI ''JOURNAL OF POLYMER SCIENCE ''OCCORRONO

ENTRO SETTEMBRE STOP PREGA INVIO SEPARATO MAN MANO CHE

SONO PRONTI INVECE CHE ATTENDERE AVERLI TUTTI INSIEME

OTTOLENGHI

Sig. dr. Serpieri.
informi'e

ITALCABLE

PD9 BROOKLYN NY 33 29 1204P

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

PER LA RISPOSTA TELEFONATE AL N. 8838

TELEGRAMMA via Italcable ~~via Italo~~ Radio

29.-8.1960 MILANO

Spazio riservato agli estremi di ricevimento

PROFESSOR G NATTA ISTITUTO
CHIMICA INDUSTRIALE DEL
POLITECHICO PIAZZA LEONARDO
DA VINCI 32 MILAN

1083

MANY THANKS FOR YOUR CABLE SHALL BE AT YOUR DISPOSAL ALL DAY
SPETEMBER 27TH REGARDS H MARK

30 AGO 1960

R

Il Governo Italiano e la Società Italcable non assumono alcuna responsabilità in conseguenza del servizio telegrafico
Le tariffe « VIA ITALCABLE » e « VIA ITALO RADIO » sono quelle delle vie meno costose

TELEGRAMMA via Italcable via Italo Radio

25.-8.1960 MILANO

Spazio riservato agli estremi di ricevimento

PROFESSOR G NATTA
ISTITUTO DE CHIMICA INDUSTRIALE
DEL POLITECNICO PIAZZA LEONOARDO
DA VINCI 32 MILAN

1375

26 AGO 1960

R

lunedì martedì

COULD VIST YOUR 26TH AND 27TH SEPTEMBER BUT UNFORTUNATELY
NO LATER PLEASE ADVISE IF CONVENIENT H MARK

Professor Natta
Polytechnic of Brooklyn
Brooklyn 1 - New York
333 Jay Street

DEPARTMENT OF CHEMISTRY

August 8, 1960

Prof. Dott Ing. Giulio Natta
Direttore Dell'Istituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Please permit me to tell you that I expect to be in Milano on September 29th and would be very glad if I could see you and deliver a lecture to the Montecatini Research Staff and the members of your Institute. I shall bring with me a number of samples of all kinds of new plastics, fibers and rubbers and shall base my report on the IUPAC Meeting in Moscow, the Gordon Conferences and the ACS Meeting in New York.

Please kindly let me know if this is suitable for you.

As always, I am, with kindest personal regards,

Very sincerely yours,

H. Mark

H. Mark

HM:rr

Report a Chemistry the nuclear Conference in August

POLYTECHNIC INSTITUTE of BROOKLYN

333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

August 9, 1960

Dear Dr. Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

1) - Conference on: New Horizons in Vinyls and Plastics in the Shoe Industry -
2) - Mark - Immergut - Cellulose Chemistry
3) - Report on Gordon Conf. on Polymers -
4) - Mark - Principles of Polymer Stability -

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

June 6, 1960

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32 Milano

My dear Professor Natta,

Thank you very much for your kind letters of May 31, 1960.

We are all very sorry that you will not be in Moscow because we all know that your paper and your presence would be a highlight at the Conference.

I am very much obliged to you for your contributions to the "Natta Issue" of the Journal of Polymer Science and I would greatly appreciate if you could send the manuscripts to me around September 15, 1960. We shall accelerate the publication as much as possible.

We all hope that you will take a good long rest during the summer and that you will have completely recovered from your present condition in the fall.

Of course, whenever I come to Europe I shall not fail to come to Italy and to visit you and your famous Institute.

Please accept for Rosita and yourself from Mimi and myself, our warmest personal regards and very best wishes.

Very sincerely yours,

H. Mark

H. Mark

HM:fc

Rispondere ok
Sorrento

POLYTECHNIC INSTITUTE of BROOKLYN

333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

June 27, 1960

Dear Professor Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

MPD157 BROOKLYN NY 23 30 930A

PER LA RISPOSTA TELEFONATE AL N. 8838

T DR G NATTA ISTITUTO
CHIMICA INDUSTRIALE
POLITECHICO PIAZZA 1110
NARDODAVINICI 32 MILAN

TELEGRAMMA Italcable via Italo Radio

1960 30 S

Spazio riservato agli estremi di ricevimento

ITALCABLE 30.-8.1960 MILANO

GLI ANS

Am.

RE YOUR CABLE TWENTYNINTH SEPTEMBER IS ALL RIGHT REGARDS

H MARK

Il Governo Italiano e la Società Italcable non assumono alcuna responsabilità in conseguenza del servizio telegrafico
Le tariffe « VIA ITALCABLE » e « VIA ITALO RADIO » sono uguali a quelle delle vie meno costose

ATTA ISTITUTO DI CHIMICA
USTRIALE DEL POLITECNICO
PIAZZALEONARDODAVINCI 32 MILANO

1037

Spazio riservato agli estremi di ricevimento

ITALCABLE 23.-8.1960 MILANO

mercoledì

PLEASE ADVISE IF SEPTEMBER 28TH AND 30TH CONVENIENT

REGARDS

H.MARK

ISTITUTO DI CHIMICA INDUSTRIALE DEL POLITECNICO
23 AGO 1960
R

28-29 fine

A Torino o dopo

Il Governo Italiano e la Società Italcable non assumono alcuna responsabilità in conseguenza del servizio telegrafico
Le tariffe « VIA ITALCABLE » e « VIA ITALO RADIO » sono uguali a quelle delle vie meno costose

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

April 25, 1960

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

My dear Professor Natta,

Please accept my many thanks for your kind letter of March 9, 1960; today Dr. Lucini handed over to me the four volumes which contain the most valuable gift which I could imagine for me and for our Institute: your collected papers on stereospecific polymerization and stereospecific polymers.

We had organized a little symposium for this occasion and it is needless to say that everybody who was present asked me to convey to you his best wishes and greetings.

Please accept for your wife and yourself from Mimi and myself our warmest personal regards and very best wishes.

Very sincerely yours,

H. Mark

H. Mark

HM:fc

PS: Mimi and I also want to congratulate you and Rosita on the occasion of the engagement of your daughter and we wish her a very happy future.

Congratulations
Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

461

April 25, 1960

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

My dear Professor Natta,

Please accept my many thanks for your kind letter of March 9, 1960; today Dr. Lucini handed over to me the four volumes which contain the most valuable gift which I could imagine for me and for our Institute: your collected papers on stereospecific polymerization and stereospecific polymers.

We had organized a little symposium for this occasion and it is needless to say that everybody who was present asked me to convey to you his best wishes and greetings.

Please accept for your wife and yourself from Mimi and myself our warmest personal regards and very best wishes.

Very sincerely yours,

H. Mark

H. Mark

POLYTECHNIC INSTITUTE of BROOKLYN

333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

Ann

May 6,,1960

Dear Professor Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

Ann

March 15, 1960

Professor Dott. Ing. Giulio Natta
Direttore Del Istituto di Chimica
Industriale del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Permit me to thank you for your kind words of congratulations.

It was a great honor for me to receive the Nichols Medal and I am very grateful for your good wishes.

As ever, with kindest personal regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:ff

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

March 11, 1960

Prof. Dott. Ing. Giulio Natta
Direttore Dell Istituto di Chimica
Industriale Del R. Politecnico di Milano
Piazza Leomardo da Vinci 32
Milano, Italy

My dear Professor Natta,

Permit me to thank you for your kind words of congratulations.

It is a great honor for me to receive the Nichols Medal and I am very grateful to you for your good wishes.

With repeated thanks and, as ever, warmest personal regards, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fc

September 27, 1960

Mr.Don T. Ho
Minnesota Mining and
Manufacturing Co.
Central Research Dept.
2301 Hudson Road
St.Paul 19, Minnesota
(USA)

Dear Mr. Don T. Ho,

with regard to your letter of September 12, I am sorry to inform you that I have no copies of the lecture I held in Moscow in June 1960. However it will be published in the "Journal of Polymer Science". As soon as available, I shall send you a reprint of this publication. Now, if your like, I can send you a copy of the lecture I held in Paris at the Congress on Catalysis.

With my best regards,

G.Natta

469 → [illegible]

VERE:
Servizio Coordinam.Sviluppo e Propaganda

the 9th December 1960

Air Mail

FE/da

Dear Mr. Kaufmann,

Extrusion of Polypropylene Film

Prof. Natta, who is presently out of Milan, has kindly requested us to reply to your letter of November 27th, 1960.

The information as to the patent rights in Australia, to which you refer, is not correct: the situation is still under consideration by our Company and we cannot yet announce whether and when a manufacturing licence or licences will be granted with respect to the Australian market.

Your questions concerning the extrusion of tubular or flat film are therefore somewhat premature, since the matter is dependent uppn the ultimate solution which will be given to the said situation.

We shall not fail to contact you again as soon as the developments will warrant a resumption of the conversations on this subject.

Kindest regards,

"M O N T E C A T I N I"

Mr.
G.A. KAUFMANN
Market research Manager
MOULDED PRODUCTS LIMITED (Australasia)
165, Cremorne Street
RICHMOND E 1
Melbourne,Victoria

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

August 15, 1960

Prof. Dott. Ing. Giulio Natta
Directore Del Istituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Due to travelling connections I have to modify my schedule slightly. I shall now be in Milano on September 28 and in the morning of the 29th and would appreciate very if you could let me know if this new date is suitable for you.

With kindest best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fc

January 27th 1960

Leon Marker
Olin Mathieson Chem.Co.
New Haven 4, Connecticut
(U.S.A.)

Dear Sir,

According to your request of the following reprint: "Conformation of Linear Chains and their Mode of Packing in the Crystal State, J?Pol.Sci. 39, 29 (1959), we are sorry to inform you that we have no available copies.

Best regards.

(Secretary to Prof.G.Natta

March 21st 1960

Dr.John W.Pearce
Applied Research Director
S.C.Johnson & Son, Inc.
Racine, Wisconsin
(U.S.A.)

our ref.296/eg

Dear Dr.Pearce,

To-day I have received your letter of March 17, 1960 from which I learn your desire to visit our Institute. Not probably I shall not be in Milan during the period you plan to be here. In any case you will be able to visit our laboratories accompanied by a co-worker of mine.

However, I regret to inform you since now that, in these last years, we have received a great number of visitors belonging to American chemical industries, but for obvious reasons, we have never disclosed our research program, its scope and current objectives. Since we cannot act otherwise with you, these topics shall not be discussed.

With my best regards.

G.Natta

Established 1886

THE MAKERS OF Johnson's Wax

S. C. JOHNSON & SON, INC. • Racine, Wisconsin

March 17, 1960

Professor Giulio Natta
Istituto di Chimica
Industriale del Politecnico
Milan, Italy

Dear Professor Natta:

I am planning to be in Italy in early June and am therefore writing you to request the privilege of visiting your laboratories on Thursday, June 9. It is the purpose of my visit to gain a fuller appreciation of your research program in macromolecular chemistry, its scope, and current objectives.

In considering this trip I have discussed my itinerary with Dr. Mesrobian and members of the faculty at Brooklyn Polytechnic Institute, and they have recommended that I write you to request this privilege of visiting your laboratories during my visit to Milan.

I would appreciate some indication of the feasibility of this date by letter from you prior to my leaving the continental United States, perhaps as early as April 15.

Sincerely yours,

S. C. JOHNSON & SON, INC.

John W. Pearce
Applied Research Director

JWP/hu

FACTORIES: Racine, Wisconsin, U.S.A. • Brantford, Canada • West Drayton, England • Paris, France • Sydney, Australia • Hamburg, Germany • Mexico City, Mexico • Fortaleza, Brazil

• World's Largest Makers of Wax Polishes and Allied Products for Household, Commercial, Industrial, Automotive and Agricultural Uses

L50

Aug. 30, 1960

Mr. Martin B. Gordon,
Editor-in-Chief,
Plenum Press Inc.
227 West 17th Street,
New York 11, N.Y. (USA)

mr ref. 799/lv

Dear Mr. Gordon:

Thank you for your circular letter dated August 15, 1960.

I hope to be able to meet Mr. Coleman in Italy. If, by chance, I am out of town during the period Mr. Coleman will come here, some co-workers of mine, say either Prof. Mantica, or Prof. Pasquon, or Prof. Mazzanti, will be very pleased to meet him and talk with him.

With my best regards,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · Ulster 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

October 4, 1960

Professor Giulio Natta
Direttore del Istituto di Chimica
Industriale del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

As usual, it was a very great pleasure for me to visit with you in Milano where I had a most interesting visit.

Please accept my warm and sincere thanks for your true and generous hospitality and for your kindness.

I do sincerely hope to have the opportunity to see you in the very near future.

As ever, I am, with warmest personal regards and very best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:fc

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · Ulster 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

September 16, 1960

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

My dear Professor Natta,

Thank you very much for your kind letter of September 10.

I agree fully with your plans and I shall be delighted to spend the morning of September 29th at Montecatini and the afternoon at your Institute.

Until then, please accept my warmest personal regards and very best wishes.

Very sincerely yours,

H. Mark

H. Mark

HM:fc

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · Ulster 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

Ken 967

September 14, 1960

Dr. G. Natta
Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Lennardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Please kindly find enclosed four pages which indicate what kind of topics I shall be prepared to present to you during my visit with you in Milano.

I would appreciate it if you kindly would select those topics which appear to be of interest to you.

Please permit me to remain, with kindest best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:rac

IO sept. I960

Prof.H.Mark,
Polytechnic Institute of
Brooklyn,
333, Jay Street,
Brooklyn I, New York (USA)

our ref.83I/lv

Dear Professor Mark,

Thank you for your letter of Sept.6; I was very pleased to learn that you will stay in Milan for several days. I only regret that you cannot stay for the week-end, otherwise we could have made a trip by car, either to Champoluc or to Sanremo.

On the 29th, you will hold your lecture at the Montecatini building. Since you desire to have two hours at your disposal, I have anticipated your lecture at IO:30 a.m. instead of II:00 a.m. In the afternoon, if you have time, you can hold a short seminary either in my Institute, or in another place at the Polytechnic; at 5 p.m. In any case, on your arrival in Milan, on the 26th, you will find a detailed program at the Hotel Palace.

I do not know whether I shall be able to be in Milan on the 26th, but I shall do my best for being in town before evening, and I will call you up at the Hotel Palace on my arrival.

Rosita is very glad to meet you again, and she only regrets that Mimi will not be with you.

With my warmest regards and best wishes,

I am,

Very sincerely yours,

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · Ulster 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

September 6, 1960

Professor Giulio Natta
Direttore Del Istituto di Chimica Industriale
del R. Politecnico di Milano
Piazza Leonardo de Vinci 32
Milano, Italy

Dear Professor Natta,

Many thanks for your kind wire indicating that September 29 will be convenient for yourself and Montecatini for a visit and for a lecture on recent events in Polymer Chemistry.

I am planning to arrive in Italy on September 26 and shall phone you or Dr. Morandi on one of the following days to confirm my arrival. On September 29 I shall be available the whole day and I suggest that we arrange for a two (2) hour session in the morning and a two (2) hour session in the afternoon, each of which could be followed by a discussion. Later in the afternoon, I would like to go to Ferrania to visit Dr. Ajmar on Friday September 30; however I shall be back in Milano on Saturday, October 1, in case that you would like to have some more discussions. On October 1, at 4:45 pm, I must leave Milano again.

I am looking forward very much to seeing you again after so many months and I hope that I shall also have the pleasure to meet Rositta and your children. Unfortunately Mimi cannot come with me because she is very busy here with the house and with the grandchildren.

Please kindly accept my warmest regards and very best wishes, and permit me to remain,

Very sincerely yours,

H. Mark

H. Mark

HM:rac
P.S. In Milano I intend to stay at the Hotel Palace.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · Ulster 5-8000

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

September 9, 1960

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32,
Milano, Italy

My dear Professor Natta,

Very many thanks for your kind letter of September 1,1960.

I have been able to reorganize my schedule and am now able to go to Turin and visit Professor Nasini. I would appreciate it very much if you could drive me back to Milano on the evening of the 28th.

Looking forward to seeing you soon, please permit me to remain, with kindest best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rac

Sept.6, 1960

Professor H.Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref.814/lv

Dear Professor Mark,

On my return to Milan, after a period of rest at Champoluc, I wish to confirm what my secretary has already written to you.

You will hold your lecture on Sept.29, at 11 a.m., at the Montecatini ~~head office.~~ building in Via Moscova.

I know that Professor Nasini would be very pleased if you can attend the I.U.P.A.C. meetings in Turin on the occasion of the Congress which will take place in that town.

I will be in Turin on Sept.27 evening and I shall leave Turin to Milan on the 28th evening. If you are in Turin too, I hope I shall have the pleasure to ~~give you a lift to Milan.~~ accompany you to Milan.

Is Mimi coming with you? Rosita is looking forward to meeting her again.

Rosita joins me in sending you and Mimi, our kindest regards.

Very sincerely yours,

G.Natta

Sept. 1, 1960

Prof. H. Mark,
Polytechnic of Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref. 807/lv

Dear Professor Mark,

Professor Natta, who has left Milan for Champoluc, charged me to thank you for your cable and to apologize with you for the unpleasant occurrence of changing dates so many times.

At last, your lecture is scheduled for September 29, morning, at the Montecatini head-office.

Professor Natta believes that Professor Nasini has written to you with regard to the Turin Congress: your attendance there will be very much appreciated. Professor Natta also wishes to know whether you go to Turin on Sept. 28; in this case, he will be very pleased to give you a lift from Turin to Milan in the evening of Sept. 28.

Please, let us know whether we have to book a room for you in a Milan hotel for the 28th, 29th, and for any other day you wish to spend in Milan.

With kindest regards,

Very truly yours,

the secretary to
Prof. Natta.

Sorry September 28 and 29 I and other Monte=
catini men will be in Turin. Please postpone
or anticipate visit. Regards. Watta

---

dettato il 24 agosto 1960
ore 15

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

February 5, 1960

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

My dear Professor Natta,

Many thanks for your kind letter of January 27, 1960.

I am very sorry that I cannot come to Europe this spring because nothing would have pleased me more than to visit you and your laboratory.

I shall be delighted to publish all articles which you send us as fast as possible and shall give your manuscripts special attention as I have always done in the past. With our present schedule I can publish a paper three or four months after the manuscript has been received.

I hope that you and Rosita are always well and I am looking forward with the greatest pleasure to seing you in Moscow.

As ever, with warmest personal regards and best wishes,

I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fc

Ave

27 Luglio 1960

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1 - N.Y. - U.S.A.

Prot.N.764/rl

Caro Mark,

La ringrazio per la Sua lettera del 27/6 e per l'interessante materiale che mi ha inviato.

Nel precedente invio ho osservato un Report relativo al polipropilene preparato con il brevetto della Eastman Kodak. In tale Report era riferito che si doveva considerare tale prodotto come sindiotattico.

Noi abbiamo preparato con molta cura il polipropilene secondo il modo do operare indicato nel brevetto della Eastman Kodak. Si tratta però di un polimero isotattico, la cui temperatura di fusione corrisponde a quella dei polimeri isotattici. Ritengo che le temperature di fusione superiori a 180°C, indicate in tale brevetto, siano errate : infatti si tratta di un polimero a peso molecolare molto alto e la temperatura di fusione determinata con i metodi usuali della chimica organica, non fornisce dati esatti, in quanto non si osserva, alla temperatura di fusione, la formazione di gocce liquide.
Anche l'esame al microscopio polarizzatore può dare risultati inesatti, qualora il riscaldamento venga effettuato molto rapidamente e qualora il peso molecolare elevato non consenta una rapida diffusione delle molecole che mantengono in parte l'orientamento che possedevano nei cristalli.
Il comportamento del polimero della Eastman Kodak corrisponde a quello di un normale polimero isotattico ad alto peso molecolare.

Cordiali saluti.

Giulio Natta

June 30, 1960

Prof. H. Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York

our ref. 626/lv

My dear Professor Mark,

thank you for your letter of June 6 and for your postcard from Moscow. I answer you only now because I did not know when you would have come back to New York from Europe.

I also thank you for your kind wishes and for the interest you take in our works.
I am examining the possibility of sending you a set of manuscript within the 15th of September, but I fear that this period of time is not enough, also because all my co-workers go on holyday in the month of August. I shall write to you on this matter within next July.

Rosita joins me in sending you and Mimi, our warmest regards and best wishes.

Very truly yours,

G. Natta

P.S. I would very much appreciate learning whether it will be convenient if I send you part of the works by the 15th of September and another part by the end of September. On the whole these works will be about ten.

31 May 1960

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute
333 Jay Street
Brooklyn 1 - N.Y. - USA

Our ref.586/rl

Dear Professor Mark,

Dr.Ottolenghi told me your proposal to devote one issue of the J.Polymer Sci. to the works on ionic co-ordinated polymerizations, and on the stereospecific ones in particular. He also told me your desire that this issue should be published in 1960, since five years have elapsed since the first papers on stereospecific catalyses were published.

We believe we shll be able to prepare about ten works, by now unpublished, within the end of September.

In a short time, I will communicate you the titles of these works and, approximately also the number of their pages.

I would very much appreciate learning the names of the other authors who should contribute to this issue, and if possible, the titles of their works.

With kindest regards and best thanks.

G.Natta

May 31, 1960

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
Brooklyn 1 - N.Y. - USA

our ref.584/rl

Dear Professor Mark,

thank you very much for your kind wire, after which I had confirmed my decision to participate, together with Rosita, and with several co-workers of mine, to the Moscow Symposium. Therefore I had already bought the plane tickets, and a tour through the Intourist Agency, for the first five days.

Unfortunately my physicians prescribed me a period of absolute rest, being very tired owing to the University term and to the great number of works which are being developed in my Institute.

I herewith enclose a copy of a letter I sent to Prof.Huggins. I do hope he will be able to pay us a short visit in Milan, since I know that he will participate to the Congress of Catalysis in Paris, next July.

I know that you are always very busy. However if you have the possibility of coming to Italy, we shall be very glad to welcome you as out guest. Thus we could discuss with you the problems of the new nomenclature.

With kindest regards to Mimi and you, I remain,

Very sincerely yours,

Giulio Natta

31 May 1960

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of
Brooklyn - Brooklyn 1 - N.Y.
333 Jay street
(U.S.A.)

our ref.586/eg

Dear Professor Mark,

Dr.Ottolenghi told me your proposal to devote one issue of the J.of Polymer Sci to the works on ionic co-ordinated polymerizations, and on the stereospecific ones in particular. He also told me your desire that this issue should be published in 1960, since five years have elapsed since the first papers on stereospecific catalyses were published.

We believe we shall be able to prepare about ten works, by now unpublished, within the end of September.

In a short time, I will communicate you the titles of these works and, approximately also the number of their pages.

I would very much appreciate learning the names of the other authors who should contribute to this issue, and if possible, the titles of their works.

With kindest regards and best thanks

G.Natta

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

January 20, 1960

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta,

Please accept my many thanks for your kind letter of January 15, 1960 and for your cordial invitation to hold a lecture at your Institute in Milan.

Unfortunately I must decline your kind invitation since I will not be in Europe at that time as I had originally planned.

Permit me to remain with repeated thanks and best wishes,

Very sincerely yours,

H. Mark

H. Mark

HM:fc

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

January 27, 1960

Dear Dr. Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

HM:rs
Encl.

DEPARTMENT OF CHEMISTRY

March 11, 1960

Professor G. Natta
Instituto Di Chimica Industriale
Del Politechnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter of March 3, concerning our Seminar for Industry Research Associates which was held on January 15. This was primarily a report by some of our professors about research in progress; the papers themselves will not be published. Most of the material will probably appear in the form of several original manuscripts from the various professors' laboratories in the near future.

Enclosed are several recent reprints which may be of interest to you.

I shall be giving some of the work that I discussed in the Seminar referred to above at the Macromolecular Meeting in Moscow, and I am looking forward to seeing you there.

With kindest regards to you and Mrs. Natta.

Sincerely,

C. G. Overberger - Head
Department of Chemistry

cgo-h
encs.

airmail

21st MAY 1960

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1 - New York - USA

our Ref.539/rl

Dear Professor Mark,

I would very much appreciate learning whether the American Delegation and you in particular will partecipate to the International Macromolecular Symposium in Moscow next June.

I ask you this question since the present international political situation is somewhat troublesome. I beg you to answer me as soon as possible, as my coworkers and I should leave Italy for Moscow within a fortnigh.

Rosita joins me in sending you and Mimi our kindest regards and best thanks.

Very sincerely yours,

Giulio Natta

May 10, 1960

Prof.H.Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref.461/lv

Dear Professor Mark,

I wish to thank you very much for your kind letter of April 25.

Rosita and I also want to thank you and Mimi for the dear congratulations and wishes you sent us and my daughter on the occasion of her engagement.

Rosita joins me in sending you and Mimi our kindest regards.

Very truly yours,

Giulio Natta

March 9th, 1960

Prof. H.Mark
Polytechnic Inst.of Brooklyn
333 Jay Street
Brooklyn 1, New York
U.S.A

our refs.230/eg

Dear Professor Mark,

With great pleasure I am forwarding to you, through the courtesy of Mr.Lucini, of Chemore Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytechnic Institute on stereospecific polymerization and stereoregular polymers.

I hope that this collection may be useful to you for reference, since, till now, these papers were rather scattered in many journals, Many of them were published in European reviews having a small circulation in the United States.

With my best personal regards, I am,
Sincerely yours,

G.Natta

Dear Prof. Mark

Sorry not being able to attend ceremony in your honour, I send hearty congratulations for ~~deserved~~ outstanding recognition. Most sincerely.

Giulio Natta.

Professor Mark:
Polytechnic Institute
~~of Brooklyn~~
333, Jay Street,
Brooklyn 1
New York
U.S.A.

Telly

detto a
10/3/60
ore 18

January 27, 1960

Prof. H. Mark,
Polytechnic Institute of
Brooklyn,
333, Jay Street,
Brooklyn 1, New York.

our ref. 62/lv
" " 70/lv

copy to Dr. H. Immergut

Dear Professor Mark,

I was sorry to learn from your letter of January 20, that you will not come to Europe next March, and therefore I shall miss the opportunity and the pleasure of seeing you in Milan.

Since Dr. Immergut wrote me that it will be possible to publish works in Polymer Science with greater speed than in the past, we are examining the possibility to publish a series of works in a single issue of the Journal of Polymer Science. We can prepare a series of works, for instance, on the following subjects or similar topics:

- Stereospecific polymerization of some non hydro= carbon monomers.
- Structure of isotactic non hydrocarbon polymers.
- Structure and synthesis of stereo-ordered diole= fin polymers.
- Monodimensional space groups in the field of high polymers.
- Structure of syndiotactic polypropylene.
- Structure of di-isotactic polymers.
- Stereospecific polymerization using non metal= organic catalysts.
- Ethylene-aliphatic alpha-olefin copolymers.

I would like to know how long it will take to publish those papers, from their arrival in the States. We think we can write the papers within three or four months.

I hope you shall find another opportunity of coming to Europe before the IUPAC Congress in Moscow: in this case, I shall be very glad if you come to Italy.

WILEY SERIES ON THE SCIENCE AND TECHNOLOGY OF MATERIALS

May 26, 1960

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Thank you very much for your kind letter of May 5, 1960.

I would like to bring up another matter. As you see from the above letterhead, I am helping Wiley in an editorial and publishing enterprise that may be of great importance in aiding the development of the science of matter. The scope of the enterprise is indicated in the accompanying explanatory sheet.

It seems to me that you could contribute very significantly to the value of this series by writing a book entitled "The Crystalline Structure of (Stereoregular) Polymers". Perhaps you would wish to have one of your colleagues like P. Corradino help you as a co-author. I have been completely fascinated by your work in this field. Such a book should be addressed to graduate students and to academic and industrial research workers. It seems to me that your researches in this field should make such a book a very interesting one for you to write. Of course the title and even the subject matter is just a suggestion: we would be glad to receive any book by you.

I myself am having my book on "Properties and Structure of Polymers" published in the series. Many other books on important topics are planned. There will certainly be a sales advantage for books in this series.

If you write to me and indicate an interest I shall ask the John Wiley editorial staff to contact you on a contract and other business matters.

Very best wishes and regards.

Very truly yours,

Arthur Tobolsky

Arthur V. Tobolsky

cc: J. K. Maddock
J. H. Hollomon

January 27, 1960

2nd sheet

Rosita joins me in sending you and Mimi our kindest regards.

Very sincerely yours,

Giulio Natta

To Prof. G Natta
with sincerest best wishes

April 20, 1960

During the course of my professional career as a chemist, both as a professor of chemistry and as an industrial consultant, I had on very many occasions encountered the brilliant researches of Professor G. Natta, in the field of structure determination by X-rays, in the field of inorganic chemistry and in the field of heterogeneous catalysis. It therefore came as no surprise to me that when a few years ago a true revolution in polymer chemistry transpired, the man most responsible for that revolution was Professor Natta. It was very fitting that in the glorious afternoon of his career, Professor Natta shook the chemical world by his successful synthesis of stereoregular polymers.

I feel deeply touched that Professor Natta decided to honor my own work in polymer chemistry by this gift that you have presented to me today. I understand that only a very few complete copies of Professor Natta's collected works exist. As a fellow scientist I understand fully the deep attachment we all feel to our collected reprints, because they represent after all the summation of our life's work. They represent the hidden sweat and tears as well as the occasional triumphs and satisfactions. I deeply appreciate the symbolic value of this personal gift.

Professor Natta's work has been in large part supported by the Montecatini Company as well as by the University of Milan. It is a source of great satisfaction to me that the support of fundamental scientific work in Italy has been so enlightened, and that in turn this work will substantially enrich Italy as well as the rest of the world. I would like to express my thanks to the Montecatini Company for their gift to my University, which in this case too has important symbolic significance.

Arthur Tobolsky

PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY
SCHOOL OF ENGINEERING, JOHN C. GREEN FOUNDATION

Address reply to:
THE PLASTICS LABORATORY
30 CHARLTON STREET

January 29, 1960

Professor G. Natta
Institute di Chimica Industriale de Politecnico
Milano, Italy

Dear Professor Natta:

At the beginning of last September I wrote to you concerning the possibility of my doing research at the University on a Fulbright Fellowship. I should like to thank you for your prompt and courteous reply, and apologize for not acknowledging your reply at an earlier date.

While I feel that I would have benefitted greatly by working in your department, after much deliberation I decided to make my Fulbright application elsewhere.

I should like to thank you again for your kind consideration. I hope that some day I may have the opportunity to visit your facilities.

Sincerely yours,

Howard Zabusky

Howard H. Zabusky

HHZ:mw

Gettysburg College

GETTYSBURG, PENNSYLVANIA

CHEMISTRY DEPARTMENT

JOHN B. ZINN, PH. D.
PROFESSOR EMERITUS

CALVIN E. SCHILDKNECHT, PH. D.
PROFESSOR & DEPT. HEAD

CHARLES A. SLOAT, PH. D.
PROFESSOR

GLENN S. WEILAND, PH. D.
ASSOCIATE PROFESSOR

ALEX T. ROWLAND, PH. D.
ASSISTANT PROFESSOR

EUGENE DEARDORFF, A. B.
INSTRUCTOR

August 11, 1960

Professor G. Natta
Istituto Chimica Industriale
Politecnico Milano
Milano, Italy

Dear Professor Natta:

We would be happy to receive reprints of your polymer papers in 1960 such as Makromolekulare Chemie 35, 94 (1960).

Best wishes for continuing success in polymer research and best personal regards.

Sincerely,

Cal

C. E. Schildknecht

CES/dre

[illegible]

[illegible]

A [illegible]

Gettysburg College

GETTYSBURG, PENNSYLVANIA

CHEMISTRY DEPARTMENT

JOHN B. ZINN, PH. D.
PROFESSOR EMERITUS

CALVIN E. SCHILDKNECHT, PH. D.
PROFESSOR & DEPT. HEAD

CHARLES A. SLOAT, PH. D.
PROFESSOR

GLENN S. WEILAND, PH. D.
ASSOCIATE PROFESSOR

ALEX T. ROWLAND, PH. D.
ASSISTANT PROFESSOR

EUGENE DEARDORFF, A. B.
INSTRUCTOR

August 11, 1960

Dr. F. Danusso
Istituto Chimica Industriale
Politecnico Milano
Milano, Italy

Dear Dr. Danusso:

Congratulations on your continuing interesting researches on polymers. We would be glad to receive reprints of any of your polymer papers in 1959 and 1960. I have not forgotten the very pleasant day I spent with you in Milano in 1956.

Next time you are in the U. S. A. why not stop here enroute to Washington to see President Eisenhowers farm, the most visited battlefield in North America, our college and our new home.

Best wishes in research and best personal regards.

Sincerely,

Cal

Calvin E. Schildknecht

CES/dre

(I - precedenti fino a 290)

I - viare 291, 296, 302, 303, 306, 312, 324, 330, 338, 361, 374, 376, 386, 392, 406 bis, 452 -

CASE INSTITUTE OF TECHNOLOGY
UNIVERSITY CIRCLE
CLEVELAND 6, OHIO

DEPARTMENT OF CHEMISTRY
AND
CHEMICAL ENGINEERING

23 Agosto 1960

[illegible] TECNICO
30 AGO 1960
R 796

Prof. Dott. Giulio Natta
Politecnico di Milano
Piazza Leonardo da Vinci 32, Milano
Italia

Egregio Prof. Natta:

Nel Giugno del corrente anno, ho conseguito il mio diploma "Doctor of Philosophy" in Chimica Fisica presso il Case Institute of Technology di Cleveland, Ohio. Attualmente faccio parte del Corpo Accademico del Case.

La ragione per cui mi permetto di scriverLe é la seguente: Sono specializzato nel campo dei polimeri ed ho esperienza per quanto riguarda il lavoro di ricerca da Lei sviluppato. Desidererei ardentemente eseguire ricerca post-Laurea sotto la Sua guida.

Ho cercato di ottenere delle borse di studio rivolgendomi a diverse Istituzioni e Universitá, ma sembra difficile e complicato poter ottenere una di tali borse per l'Italia.

A questo punto ho deciso di lavorare qui al Case per quest'anno, in modo da poter risparmiare il denaro che mi permetta di pagarmi il viaggio e di fare fronte alle spese di permanenza in Italia. Sarei quindi disposto a lavorare senza compenso alcuno e potrei cominciare nel Febbraio 1961.

Allego un breve sommario del mio curriculum. Qualora Le interessasse, potrei inviare un resumé piú esteso e particolareggiato, e referenze da Lei eventualmente richieste.

Mi permetto, inoltre, di farLe presente che i miei genitori sono Italiani, e che conosco e parlo l'Italiano.

Le sarei profondamente grato qualora mi desse la possibilitá di lavorare insieme con i Suoi allievi.

In attesa di un Suo cenno, voglia gradire i miei migliori saluti.

Tito T. Serafini

Tito T. Serafini, Ph. D.
Research Associate

TTS/mm

Rispondere [illegible] con il testo di la lettera [illegible]
[illegible] dalle [illegible]
Sono spiacente di non poter disporre di
borse di studio per stranieri. Potrei [illegible]
accoglierLa nel mio Istituto [illegible]
senza però poter mettere [illegible] di [illegible]

Rispondere [illegible] di
svolgere ~~[illegible]~~ [illegible]
[illegible]
[illegible]
[illegible]
[illegible] (15-16 mesi)

STANFORD RESEARCH INSTITUTE
MENLO PARK, CALIFORNIA

DEPARTMENT OF CHEMISTRY

December 12, 1960

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32,
Milano, Italy

Dear Professor Natta:

My wife and I were delighted to learn, from your secretary, that your recent operation has yielded excellent results. We hope that your health will improve rapidly.

Please do not let consideration of our nomenclature subcommittee's report interfere in any way with your convalescence. Although we hope that it will not be long before we can reach complete agreement, your health is much more important.

We send our very best wishes to you and your family for Christmas and the New Year.

Sincerely,

Maurice L. Huggins

Maurice L. Huggins, Director
Physical and Inorganic Chemistry

MLH/cl

Many thanks for your Kind telegramme letter, very grateful for the great honour of having been elected to honorary member of your Academy. Sincerely G. N.

Dear Mr.

Only to-day I have received your letter of ~~12-2~~ 2-12 in which ~~I have Known~~ you communicate to me my election To honoray member of the N Y Academy of Sciences. This communication has given a great pleasure to me, and I thank you and the friends of your Country for this great honour. I ~~have~~ am very glad for the consideration you have given to my work and I feel much honoured to become a member of your important Academy. With my Kindest personal regards

Am.

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

December 2, 1960

Professor Dott. Ing. Giulio Natta
Direttor Dell'Instituto di Chemica Industriale
Del R. Politecnico di Milano
Plazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Please allow me to be the first to congratulate you on your election as Honorary Life Member of the New York Academy of Sciences. Your friends in this country are delighted to see the honor bestowed on you that is being awarded only to men who have made outstanding contributions to the advances of science and we hope that you will take this as a sign of our affection and admiration.

With kindest personal regards,

Yours sincerely,

F. R. Eirich

Frederick R. Eirich

FRE:BM

1066

Am. Chem. New York Academy of Sciences

December 14,1960

Mr. Frederich Eirich
Chairman Chemical Sciences
East Sixtythird Street - New York

Dear Mr. Eirich,

Only today I have received your letter of 12/2 in which you communicate to me my election to honorary member of the New York Academy of Sciences. This communication has given a great pleasure to me, and I thank you and the friends of your country for this great honour. I am very glad for the consideration you have given to my work and I feel much honoured to become a life member of your important Academy.

With my kindest personal regards, sincerely

Giulio Natta

Ann.

January 15, 1960

Prof.Dr.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1, New York - U.S.A.

our ref.33/rl

Dear Professor Mark,

from the program of the "Polymeric Progress" Conference, I learned that you will hold a lecture in London next March.

I shall not attend to this Meeting, as the work of my Institute abosorbs most of my time and having taken other engagements.

However, I shall be extremely pleased if you come to Milan to hold a lecture either on the subject you treat in London or on other subjects, as you like better.

On our part, we could arrange to let you have a contribution of $250.=

If you wish, onthe same occasion, to hold other lectures at other chemical Companies , say for instance, the Pirelli Co., I shall inform them of your coming to Milano

Hoping to meet you again in Milan soon, I send you my kindest regards.

G.Natta

April 28, 1960

Prof. C. G. Overberger - Head
Department of Chemistry,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (U.S.A.)

our ref. 410/lv

Dear Professor Overberger:

thank you very much for your letter of March 11, and for the information you give me about the works presented at your Seminar for Industry Research Associates.

I also sincerely thank you for the interesting reprints you were kind enough to send me.

Looking forward to meeting you in Moscow next June, I send you and Mrs. Overberger, my kindest regards.

G. Natta

Aus

March 3, 1960

Prof. C. G. Overberger,
Polytechnic Institute of
Brooklyn
333 Jay st.
Brooklyn 1, New York (U.S.A.)

our ref. 204/lv

Dear Professor Overberger,

thank you for the summary account of the Seminar for Industry Research Associates which was held on January 15, 1960, where you acted as chairman.

If the communications presented should be published, I should most appreciate receiving their reprints.

I hope I shall meet you and Mrs. Overberger sometimes soon in Italy; in the meantime I send you my kindest regards.

Giulio Natta

June 27, 1960

Prof. A.V. Tobolsky,
Princeton University,
Frick Chemical Lab.
Princeton, New Jersey (USA)

our ref. 654/lv

Dear Professor Tobolsky,

I apologize for answering your kind letter of May 26 (which arrived in Milan on June 17) only now. My delay is due to the fact that I am so late with a great number of engagements, that I was compelled to give up going to the IUPAC Congress of Macromolecular Chemistry in Moscow, where I should have delivered an Introductionary report, which was read by a co-worker of mine.

Moreover, only now I have finished writing a plenary Lecture which will be presented at the Paris Congress on Catalysis on July 5.

I wish to thank you very much for the kind proposal you addressed to me to write a book bearing the title: " The Crystalline Structure of (Stereo-regular) Polymers". I am very sorry but I cannot take new engagements; in fact, I am already late of an year with an engagement I took with the Pergamon Press, to write a book which will comprise the English translation of all our works on stereospecific catalysis; simple introductionary chapters will introduce each group. Only after finishing this work, I will be able to consider the book you propose me to write.

The original work which is developed in my Institute, and which I wish to follow personally, keeps me busy a great deal. Also my health compels me not to add new engagements to the old ones, which are already overwhelming.

Thank you for your kind letter, and I assure you that in 1961 I will examine the possibility of writing a book together with some co-workers of mine.

With my kindest regards.

G. Natta

May 5, 1960

Prof. Arthur V. Tobolsky,
Princeton University,
Frick Chemical Laboratory,
Princeton, New Jersey (USA)

Dear Professor Tobolsky,

Mr. Lucini forwarded me the text of the kind words you said when receiving the set of my collected papers on stereospecific polymerizations.

The words you said touched me very much, since they are told by a scientist who devoted his life to the hard scientific research work, who gave an outstanding contribution to the development of macromolecular chemistry, who understands all the labours and satisfactions given by the research work.

If the opportunity arises for you to come to Europe, I hope you will be able to come to Milan.

Looking forward to meeting you in a near future, I send you my kindest regards.

Very truly yours,

G. Natta

Ans

February 16, 1960

To Prof. L. F. Rahm
Plastics Laboratory, Director
Princeton University,
Princeton, New Jersey

our ref. 129/lv

Dear Professor Rahm,

Mr. Ronald A. Shelden, presently engaged in research work at this Institute, under the America-Italy Society "Montecatini" Fellowship, has informed us that he is presently in application for admission to the Doctoral Program at Princeton University.
This would, we are told, involve advanced studies in Chemical Engineering and research in the field of high polymers.

He has indicated that you would be interested in our comments on our impressions of his work at the Institute.
We have found Mr. Shelden to be interested and we are satisfied with his progress.
He has demonstrated imagination and initiative.
His work began only three months ago, and we believe he will be able to accomplish it within the period of his fellowship.

With my best regards,

Giulio Natta

December 22, 1964

Marshall Sittig
Princeton University
Princeton, N.J. _USA_

our ref.1021/eg

Dear Doctor Sittig:

I have read your interesting article on oxygen, appeared in the November 27 issue of Chemical Engineering News, in which you quoted the main stages in the production and use of oxygen.

I would like to point out some realizations I carried out in Italy, which, I believe, were the first ones.

1929 - Coghinas, Sardinia : gasification of very reactive coal (char coal) with oxygen and steam for the industrial production of mixtures of carbon oxide and hydrogen. This process was used by the "Società Metando e Derivati" for the production of methanol.

1931 - The same method was adopted by Montecatini S.p.a. for the production of methanol in Merano.

1940-41 - Production of carbon oxide by gasification of coal with oxygen and carbon dioxide for the production of synthetic methanol (Lonza Co., plant in Viège; Le Valais - Switzerland)

Under separate cover I send you some papers in which these plants are described. I also send you papers dealing with the gasification of coal containing volatile substances, with oxygen and steam for the production of synthesis gases, and one paper on the synthesis gases from methane and oxygen. Both these processes found industrial applications in Italy: the former by the Bombrini Parodi Delfino at Colleferro (1939) and the latter by Montecatini.

Accept my kindest regards and my best season's greetings.

G.NATTA

March 9, 1960

Prof. A. Tobolsky,
Priceton University,
Frick Chemical Laboratory,
Princeton N.J. (U.S.A.)

our ref. 229/lv

Dear Professor Tobolsky,

with great pleasure I am forwarding to you, through the courtesy of Mr. Lucini, of Chemore Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytechnic Institute on stereospecific polymerization and stereoregular polymers.

I hope that this collection may be useful to you for reference, since, till now, these papers were rather scattered in many journals. Many of them were published in European reviews having a small circulation in the United States.

With my best personal regards, I am,
Sincerely yours,

G. Natta

October 15, 1960

Prof. C. E. Schildknecht,
Gettysburg College,
Gettysburg, Pennsylvania
(U.S.A.)

our ref. 782/lv

Dear Professor Schildknecht,

Please excuse my delay in aswering your letter of August 11, 1960, which arrived here during my absence, and was delivered to me with delay, owing to a misunderstanding. Therefore I am very sorry for the delay with which you will receive the reprints you required.

Under separate cover I send you the reprints of more recent papers you may be interested in, and a list of papers published before 1960. I hope you will let me know whether you are interested in some of them: in that case, I shall be very glad to send them to you.

With my kindest regards,

G. Natta

399
400
404
412
407
421
388
402
409
415

7 Settembre 1960

Dr. Aito T. Serafini, Research Ass.
Case Institute of Technology
Dept. of Chemistry
University Circle
CLEVELAND 6 - Ohio - U.S.A.

Ns.Rif.N.796/GN/rl

Egregio Dottore,

rispondo con ritardo alla Sua lettera del 23.8.1960 perchè sono tornato soltanto ora da un periodo di ferie. Sono spiacente di non poter disporre di una Borsa di Studio per stranieri. Potrei soltanto accoglierLa nel mio Istituto senza farLe pagare nessuna spesa di iscrizione. Riguardo al lavoro da svolgere potremmo stabilirlo al Suo arrivo a Milano. Desidererei però che Lei restasse da noi il tempo necessario per portare a termine un lavoro (10-14 mesi).

I migliori saluti.

(Prof.G.Natta)

20th J[illegible] 1[illegible]

Jesse J. Prader
Spencer Chemical Co.
[illegible]
2000 West 67th Street
Merriam, Kansas (U.S.A.)

Dear Sir,

According to your request of the following reprint: "Conformation of Fibrous Proteins and their Role of Packing in the [illegible] States", J.Polymer Sci. 39, 83 (1959), we are sorry to inform you that we have no available copies.

Some regards.

(Secretary to Prof. G. Natta)

Cortella
Dow

(Copia in Cartellina)

the 1st March 1960

Dr.W.Hirschkind

Rt.2 Box 291
Martinez, California
USA

Dear Mr.Hirschkind,

Thank you very much for the wonderful box of sweet Californian fruits that we received yesterday. Rosita and I were very glad to get this present and we both thank you and Mrs.Hirschkind for the kind thought, hoping to have the pleasure of seeing you here in Milan next Spring or Summer.

I would like to talk with you on several matters: now I take the opportunity of informing you, confidentially, that, lately I have found the exponents of Montecatini rather disappointed at the news recently published in newspapers, concerning the future production of polystyrene in Italy, which will be started by DOW.

The Montecatini men are mostly disappointed because, despite their good relations with DOW, no hint had even been made to them at a direct activity of DOW in Italy, in particular with productions interfering with Montecatini productions.

If we consider that the Italian market is very small in comparison with other European markets, and even more with the American one, and that in Italy there are already three producers of polystyrene, and that the fourth one, that is the Government, is going to start its production, we must conclude that the intervention of DOW does not fill a gap, even if, by chance, the DOW product is furnished with some properties which are not found in the analogous Italian production.

I shall be very glad to know your opinion on the matter.

Hoping to meet you soon, I send to you, to Mrs.Hirschkind, and to your family, my best regards.

G.Natta

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

December 2, 1960

Professor Dott. Ing. Giulio Natta
Direttor Dell'Instituto di Chemica Industriale
Del R. Politecnico di Milano
Plazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Please allow me to be the first to congratulate you on your election as Honorary Life Member of the New York Academy of Sciences. Your friends in this country are delighted to see the honor bestowed on you that is being awarded only to men who have made outstanding contributions to the advances of science and we hope that you will take this as a sign of our affection and admiration.

With kindest personal regards,

Yours sincerely,

F. R. Eirich

Frederick R. Eirich

FRE:BM

THE PENNSYLVANIA STATE UNIVERSITY

UNIVERSITY PARK • PENNSYLVANIA

College of Chemistry and Physics
Department of Physics

January 6, 1960

Professor Giulio Natta
Istituto di Chimica Industriale
del Politechico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I recently read with great interest your paper on the Elastic and Anelastic behavior of isotactic polymers (LaChimica e L'Industria, 41, 737(1959)). As you probably know some of us here at Penn State have also studied the dynamic mechanical properties of polypropylene, polybutene and polystyrene at audiofrequencies. In conjunction with this I would like to find out if you could supply me with your values of the measuring frequency at the temperature of the damping maximum for your highly crystalline polypropylene (~ 40°C), the 40% crystalline polystyrene (150°C) and the crystalline polybutene (18°C). I would also appreciate a more accurate estimate than I can obtain from the figure in your paper of the temperature of the damping maximum for the polypropylene. An estimate of the crystallinity of the polybutene sample would also be helpful. I wish to compare your data with ours and also calculate approximate activation energies for the main amorphous transition for these three polymers.

Secondly, we are interested in making dynamic mechanical and NMR measurements on the following polymers and I would like to find out if you could supply us with 50-100 gms of any of them:

1. cis 1, 4 polyisoprene
2. trans 1, 4 polyisoprene
3. cis 1, 4 polybutadiene
4. trans 1, 4 polybutadiene
5. syndiotactic 1, 2 polybutadiene

Sincerely yours,

A. E. Woodward

Arthur Woodward

AW/slb

Ann

THE WESTERN PETROCHEMICAL CORPORATION

TWO WEST 45TH STREET • NEW YORK 36, N.Y. • MURRAY HILL 7-8220

MAURYCY BLOCH
PRESIDENT

MARCH 3, 1960

AIR MAIL

DR. GIULIO NATTA
POLYTECHNIC INSTITUTE OF MILAN
MILAN, ITALY

SUBJECT: PRESENTATION - BRONZE BUST OF PROFESSOR HERMAN F. MARK TO THE POLYTECHNIC INSTITUTE

DEAR DR. NATTA:

AS CHAIRMAN OF THE PRESENTATION COMMITTEE, I WOULD LIKE TO TAKE THE LIBERTY OF INVITING YOU TO ATTEND A LUNCHEON TO BE HELD AT THE ST. REGIS HOTEL ROOF ON SATURDAY, MARCH 12, 1960, AT 12:15 P.M.

ON THIS OCCASION, A BRONZE BUST OF PROFESSOR HERMAN F. MARK, DIRECTOR OF THE POLYMER RESEARCH INSTITUTE AND FOUNDER OF POLYMER SCIENCE, WILL BE PRESENTED TO THE POLYTECHNIC INSTITUTE.

THIS PRESENTATION COINCIDES WITH ANOTHER HONOR BEING BESTOWED UPON PROFESSOR MARK - THE NICHOLS AWARD MEDAL.

ENCLOSED PLEASE FIND A LIST OF THE PRESENTATION COMMITTEE. PROFESSORS DOTY AND ZIMM (MEMBERS OF THE NATIONAL ACADEMY OF SCIENCES AND FORMER STUDENTS OF PROFESSOR MARK) WILL DELIVER BRIEF MESSAGES.

PROFESSOR J. STERLING LIVINGSTON OF HARVARD BUSINESS SCHOOL WILL LECTURE ON A MOST INTERESTING AND TIMELY SUBJECT.

MY COLLEAGUES ON THIS COMMITTEE AND I HAVE INVITED A SMALL GROUP OF LEADERS IN SCIENCE AND INDUSTRY, AS WELL AS SEVERAL FRIENDS OF PROFESSOR MARK IN THE GOVERNMENT AND THE UNITED NATIONS.

DR. GIULIO NATTA MARCH 3, 1960

I BELIEVE YOU WILL BE INTERESTED IN READING THE ENCLOSED REPRINTS ABOUT PROFESSOR MARK.

IF BY CHANCE YOU ARE PLANNING TO COME TO NEW YORK ON OR BEFORE MARCH 12th, WE WOULD WELCOME THE OPPORTUNITY OF HAVING YOU JOIN US AT THIS LUNCHEON.

WE SINCERELY HOPE THAT WE SHALL HAVE THE HONOR AND PRIVILEGE OF YOUR COMPANY.

LOOKING FORWARD TO YOUR EARLY REPLY, WITH KINDEST REGARDS, I AM

SINCERELY,

MB/CTF
ENCLS.

WARWICK WAX DIVISION

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET • NEW YORK 36, N.Y. • MURRAY HILL 7-8220

January 11, 1960

Dear Friend of Warwick Wax:

During the past two months, we have written you regarding the expansion and modernization of our Chanute, Kansas refinery.

We have also offered you our two new products - Petrowax, MEKON WHITE, and Plastomer, ALBAPLEX.

We are now pleased to enclose our new specification and price sheet, effective January 1, 1961.

We wish to amplify our great desire to cooperate with you in 1961 and in years to come towards your greater progress and profits.

The personnel of our Chanute, Kansas refinery, our Research and Development Centers in Chanute, Kansas and Newark, New Jersey, and our sales staffs in New York, Chicago and Los Angeles, together with those from our 33 stock, sales and service centers throughout the United States and Canada, wish you a full measure of happiness and success in the new year. All of them appreciate and value the cooperation and friendship you have shown in the past, which are a great incentive and inspiration for future services with the new and expanded line of our products.

We look forward to the pleasure of hearing from you.

Kindest regards.

Sincerely,

Maurycy Bloch

Maurycy Bloch
President

MB/b
encl.

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET · NEW YORK 36, N.Y.
MURRAY HILL 7-8220

MAURYCY BLOCH
PRESIDENT

January 18, 1960

Via Air Mail

Dr. Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

I am very happy to send you herewith the photograph which you recently requested.

I would certainly like to hear from you as to when you expect to be back in America. It would be a great privilege and pleasure, indeed, to spend some time with you here.

Kindest personal regards.

Sincerely,

MB/s

Enclosure

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET • NEW YORK 36, N.Y. • MURRAY HILL 7-8220

MAURYCY BLOCH
PRESIDENT

January 6, 1960

Dear Friend:

When The Western Petrochemical Corporation was formed in April, 1959, I promised to keep you posted on new developments. This report covers our first six months of operation during which we improved and expanded existing services and facilities in a number of significant steps. We believe these to be of equal importance not only to the health and growth of our company but to users of waxes and polymers alike.

The additions to personnel, plant and laboratory facilities, and to our product lines are described fully in the enclosed material. They all add up to the fact that the Warwick Wax and Polymer divisions of The Western Petrochemical Corporation are now better equipped to serve through creative chemistry the wax and polymer requirements of the packaging, polish, carbon paper and other industries.

A careful review of the enclosed material will reveal in detail what's new at Western Petrochemical, other than our recently designed logotype which appears throughout this report. Please use the return envelope and check list enclosed to receive specific information on any further information you may desire.

With kindest regards,

Sincerely,

Maurycy Bloch

THE WESTERN PETROCHEMICAL CORPORATION
TWO WEST 45TH STREET • NEW YORK 36, N.Y. • MURRAY HILL 7-8220

DR. JOHN J. FISH
VICE PRESIDENT
RESEARCH AND DEVELOPMENT

DIC
44

November 28, 1960

Dr. Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

With further reference to Mr. Bloch's letter of November 11, 1960 concerning MEKON WHITE, I would like to elaborate on an outstanding effect of MEKON WHITE.

MEKON WHITE blends most easily with Polyethylenes in the extrusion process and increases considerably the melt index of the blend. The melt index of one polyethylene for instance was raised from 2.36 to 10.3 by blending the polymer with 12.5% of MEKON WHITE by a one-time extrusion. Many other improvements of the film can be accomplished by incorporation of MEKON WHITE.

We will be most appreciative of your comments after an evaluation of the MEKON WHITE.

With kind regards.

Very truly yours,

John J. Fish

JJF/n

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
BERKELEY 4, CALIFORNIA

October 3, 1960

AIR MAIL

Professor G. Natta
Istituto de Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

My dear Professor Natta:

I have today received the collection of reprints which you were so kind as to think of sending me. I was particularly pleased to receive the collection published in the Nuovo Cimento since it is something which normally does not come to me. I want to congratulate you on a remarkable series of works.

I have heard that your health has not been all that it should be and I do hope that you are taking steps to protect it properly. I am looking forward to seeing you in the not too distant future.

Greetings and very truly yours,

Melvin Calvin
Professor of Chemistry

MC:mt

Am.

217

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF CHEMISTRY
AND CHEMICAL ENGINEERING
BERKELEY 4, CALIFORNIA

April 5, 1960

AIR MAIL

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Milan, ITALY

Dear Professor Natta:

I would very much appreciate receiving a reprint of your interesting paper which appeared in Tetrahedron, 8, 86 (1960). Best personal regards, and

388

Greetings and very truly yours,

Melvin Calvin
Melvin Calvin

mt

UNIVERSITY OF LOUISVILLE
LOUISVILLE 8, KENTUCKY

COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF CHEMISTRY

May 12, 1960

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of April 28 and the very kind offer to arrange a visit with yourself or Professor Mazzanti or Dr. Valvassori.

I will arrive in Milan on May 31st and will telephone your office to arrange a convenient time for this visit. I will be staying at the Continental Hotel.

My best regards,

Sincerely yours,

Richard H. Wiley

Richard H. Wiley
Chairman

RHW:de

U. S. INDUSTRIAL CHEMICALS CO.
DIVISION OF NATIONAL DISTILLERS PRODUCTS CORPORATION
RESEARCH DIVISION
1275 SECTION ROAD
CINCINNATI 37, OHIO
VALLEY 1-4280

84

Bombay
January 28, 1960

Dear Prof. Natta:

I thank you very much for your letter of January 12 agreeing to let me visit your laboratories and your co-workers. I am indeed looking forward to this good fortune.

I will plan on visiting your laboratories on 16th February around 10 A.M. or so. I sincerely hope that you will be in Milan that day.

With my very best regards

Sincerely yours
Pandurang M Kamath
PANDURANG M. KAMATH

[illegible]

U. S. INDUSTRIAL CHEMICALS CO.

DIVISION OF NATIONAL DISTILLERS and CHEMICAL CORPORATION

RESEARCH • 1275 SECTION ROAD • CINCINNATI 37, OHIO

December 22, 1959

Prof. G. Natta
Instituto Chimica Industriale del Politecnico
Milano, Italy

Dear Prof. Natta:

I am writing this letter to find out if I may have the good fortune of visiting your much renowned laboratory during the course of my return trip to U.S.A. following my visit to India, my native country. Besides having the pleasure of discussing with you mutual problems during your visits to this country, I have followed with great interest much of the work reported in the literature from your laboratory. My friend, Prof. Norman G. Gaylord of Brooklyn Polytechnic who recently completed a lecture tour of Europe has given me a very impressive account of the original and high quality research work that is being carried out in your laboratories and has urged me to try to visit your laboratories, if I get time to do so during the said return trip.

I have just about one week at my disposal to spend in Europe which happens to be the third week of February 1960. My chief interest is the study of structure and properties of high polymers by both physical and physio-chemical means. I would indeed consider it a privilege if you should be in a position to permit me to visit your laboratories and kindly spare some of your valuable time showing me some of your equipment and perhaps discuss with you and your co-workers problems of mutual interest. Should you be able to afford me this opportunity, I would further appreciate it very much if you will kindly suggest to me two alternate dates during the said week (between 15th and 20th of February) that are most convenient for you in this regard. I will try to arrange my itinerary to suit to your convenience. I would also appreciate any information which you think may help me in making this vist most fruitful.

Looking forward to a favorable reply, I remain

Yours very truly,

Pandurang M. Kamath

PMK:ew

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

Ans (Polit. Brooklyn)

December 29, 1959

Prof. G. Natta
Instituto Chimica Industriale del Politecnico
Milano, Italy

Dear Prof. Natta,

Permit me to write to you on behalf of Dr. Kamath who would very much like to visit your research laboratory during his forthcoming trip to Europe.

I can highly recommend Dr. Kamath to you and would appreciate any assistance you could give him.

With kindest regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rac

introduce a Kamath
Verdi lett. N 1/1960
Ans. (U.S. Chemicals...)

March 9, 1960

Mr. [illegible] Kopczewski, Preside
of the New York Academy of
Sciences,
2, West Sixty-third Street,
New York (U.S.A.)

our ref. 236/lv

Dear Mr. Kopczewski,

With great pleasure I am forwarding to you, [illegible] on behalf of Montecatini Corporation, a complete collection of the original scientific and technical papers covering the work carried out at the Milan Polytechnic Institute on isotactic polymerization and stereoregular polymers.

I hope that this collection may be useful to the library of your Academy for reference, since, till now, these papers have been published in many journals. Many of them were published in Italian, previous having a small circulation in the United States.

With my best personal regards, I am,

Sincerely yours,

Giulio Natta

January 21, 1960

Dr. Arthur Woodward,
The Pennsylvania State Univ
College of Chemistry and
Physics, Dept. of Physics
University Park, Pennsylvan

our ref. 18/lv

Dear Dr. Woodward,

with regard to your letter of January 6, I send you the required data, concerning the tempe= ratures-of the damping maximum in isotactic polymers and their correspondent frequencies:

- Polypropylene	41°C	15.5 KHz
- Polystyrene	147°C	8.07 "
- Polybutene	16°C	17.8 "

With regard to your request of samples, I am sorry but, at present, I have not at my disposal the required amount of well characterized diolefin poly= mers.

We had prepared those polymers in the very pure state some time ago, but all the samples were used up in studying their possible uses and, in particular, in vulcanization tests.

If, during the next months, we shall find time enough to prepare some pure samples, I shall send them to you. As a matter of fact, I believe that only samples with a steric purity higher that 99% are worth while examining; because of that, I do not send you samples prepared a long time ago, with a lower steric purity, also fearing that too long a storing period has caused a little crosslinkage in them.

With my best regards.

Giulio Natta

Ann.

January 22, 1960

M. Bloch, Esq.
The Western Petrochemical Co
Two West 45th Street,
New York 36, N.Y.

Dear Mr. Bloch;

I wish to thank you sincerely for the beautiful photograph you were kind enough to send me promptly.

Sending you my best regards, I remain

Yours sincerely,

G. Natta

HERMANN F. VIEWEG
647 LINCOLN ROAD
GROSSE POINTE 30, MICHIGAN

Nat

27 Dec 60

My dear Dr. Natta:

The news item in Chemical and Engineering News telling of your award of a medal and citation by the City of Milan was read with great pleasure. May I offer my congratulations ?

Also, I should like to acknowledge , with thanks, receipt of the list of your technical publications which you recently sent me.

Very sincerely yours,

Hermann F Vieweg

HERMANN F. VIEWEG
647 LINCOLN ROAD
GROSSE POINTE 30, MICHIGAN

5 Sept 60

Dr. Giulio Natta,
Istituto di Chimica industriale del Politechnico,
Milano, Italy.

Dear Dr. Natta:

In the course of some forty years as a chemist, I have had occasion to read many technical papers, including those in a diversity of European languages.

It is quite a pleasure to have the opportunity of reading papers from your laboratory. They are always so clear, logical, and direct that they could well serve as a model for other technical writers. They have been a great help to me in developing my reading knowledge of the Italian language.

Very sincerely,

Hermann Vieweg

Hermann F. Vieweg.

WAYNE STATE UNIVERSITY
COLLEGE OF LIBERAL ARTS
DETROIT 2, MICHIGAN

DEPARTMENT OF CHEMISTRY

August 2, 1960

Prof. Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci,
32, Milano

Dear Prof. Natta :

I would like to thank you for your letter of July 29 and your kind arrangement.

My itenerary is not fixed yet but I shall visit Milano around Oct. 28. According to your letter I will meet Prof. Danusso in case you are out of Milano.

With best regards.

Sincerely yours,

Eiichi Wada

Eiichi Wada

WAYNE STATE UNIVERSITY

COLLEGE OF LIBERAL ARTS

DETROIT 2, MICHIGAN

DEPARTMENT OF CHEMISTRY

June 3, 1960

Dr. Natta
Institute di Chimica Industriale del Politecnico
Milano, Italy

Dear Dr. Natta:

I am now working in the field of light scattering of macromolecular solutions, especially in the flowing state, with Dr. Heller at Wayne State University. I came here in 1958 from the Institue of Physical and Chemical Research, Tokyo, Japan and am going to leave here for Japan this coming September via Europe.

Since I have been interested in the field of physical chemistry of polymer solutions, especially in non-Newtonian viscosity and flow birefringence, I would like to see you and visit your laboratory on this occasion. Dr. Peterlin, who is now working with us, recommended me to write to you on this matter.

I would greatly appreciate it if I could receive a letter of invitation from you. This letter is necessary in order for me to receive permission from the Consulate General of Japan for traveling through your country.

Sincerely yours,

Eiichi Wada
Eiichi Wada

EW:vc

Rispondere che può venire a Milano

(scrivo Bonsuso al ritorno da Milano)

The Towers

THE
WALDORF-ASTORIA
NEW YORK 22, N.Y.

May 31, 1960

Dr. Prof. Giulio Natta
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Knowing you have occasion to visit New York City during the year, I feel you would want to know abut the Marco Polo Club.

Its Board of Governors has asked me to propose for membership a limited number of persons from Europe.

Our good friend, Dr. Costantino Gallia, Director of the Grand Hotel Intercontinental in Milan, was anxious that the opportunity for membership be first presented to you.

The enclosed information will give the type of facilities included in the Club. It is possible that you are personally acquainted with the Board of Governors. A special International Membership has been created and since the Club is specially designed to provide luncheon, cocktail and dining facilities for its private membership, it could be of real convenience to you on the occasions of your New York visits.

A note to Mr. Bert E. White, Vice President and General Manager of the Marco Polo Club, located in The Waldorf-Astoria, might better serve to answer any questions you might have.

With every good wish,

Cordialmente
Devmo F. Dell'Agnese

F. Dell'Agnese
Manager
Waldorf-Astoria Towers

FD'A/jb
Enclosure

January 12, 1960

Dr.Pandurang M.Kamath
U.S.Industrial Chemicals Co.
Research
1275 Section Road
CINCINNATI 37 - Ohio (USA)

copy to Prof.Mark

Prot.No.1/rl

Dear Dr.Kamath,

with regard to your letter of December 22, 1959 I inform you that I hope I shall be able to meet you in Milan either on Tuesday, February 16, ot on Thursday, February 18.

I have already told some coworkers of mine - say Prof.Corradini, expert in chemical structure researches and Dr.Crespi, expert in the physical properties - to welcome you here, if, by chance, I shall be absent.

With my best regards.

Sincerely yours,

G.Natta

Ann.

June 26th 1959
June 26th 1959

Prof.Bryce Crawford
University of Minnesota
Minneapolis, 14
U.S.A.

our reference 774/eg

Dear Professor,

As you requested, I am pleased to give you a note about Dr. Zerbi, who is planning, as you already know, to go to the United States and who would like very much to work in your laboratory if it would be possible.

Dr. Zerbi obtained the degree in Pure Chemistry in the University of Pavia in 1956- since than he has been working in the Institute of Industrial Chemistry of Polytechnic of Milan where I am Director in the infrared spectroscopy laboratory under the direction of Prof. Enrico Mantica.

Dr. Zerbi in this period devoted himself in structural researches in the field of infrared spectroscopy and particularly in the study of integrated intensities of substances in condensed phase. He pointed out some relations between conjugation and integrated intensity of infrared bands in aromatic and carbonyl substances.

Further he was interested in theoretical treatment of molecular vibrations, in vibrational analysis and normal coordinate treatment of some molecule and particularly of methyl-and ethyl azide. At present he is interested in the study of force constants and in the calculations of them.

In the field of application of infrared spectra to problems of organic chemistry he is working on the absorption bands of pyrazole and its mono- and polysubstituted derivatives in order to deduce some correlations useful in structural organic problems on complex molecules.

Recently, in collaboration with the "Clinica Medica Generale" of the University of Milan, he began a study of infrared spectra of some proteins in particular of deoxirybonucleic acid obtained

continued .....

June 26th 1959

From page 1

from normal and diseased tissues.

Considering the results of this researches, the interest he has been showing during these years and his attitude to scientific problems, I am pleased to recommend Dr. Zerbi to you, because I am sure that he couldwork with the best advantages in your laboratory under your direction.

He wants really to improve his training and experience in the field of molecular spectroscopy particularly from a theoretical point of view in order to get some new techniques and methods of researches. He should like also to take some specialised courses in the subjects useful in this field of researches.

With kindest regards,

Very sincerely yours

G.Natta

Arthur D. Little, Inc.

GENERAL OFFICES
THIRTY MEMORIAL DRIVE
CAMBRIDGE 42, MASSACHUSETTS

ESTABLISHED 1886

ACORN PARK
CAMBRIDGE 40, MASSACHUSETTS

UNIVERSITY
4-5770

May 4, 1960

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico Di Milano
Milano, Italy

Dear Professor Natta: C-62874

I am planning to be in Milano on June 20, 21 and 22. I was hoping that it might be possible for me to visit with you on one of these days to discuss an assignment we have with a large consumer of polyethylene in the United States. This company is considering entering the production of polyethylene and possibly polypropylene. Part of our assignment is to advise this company concerning new developments which are on the horizon in this fast-moving field. I realize that you are not free to discuss your work in detail. However, whatever you can talk about would be of immeasurable aid.

In addition, I would like to talk with the proper people at Montecatini concerning the nature of licensing agreements for the production of polypropylene. I would appreciate it if you could inform me who this may be, so that I can arrange to meet with him also during my visit to Milano.

Very truly yours

Norman M. Wiederhorn

Norman M. Wiederhorn

sarà qui in quel periodo, per quanto riguarda licenze polipropilene a Ossi

/amm

UNIVERSITY OF LOUISVILLE
LOUISVILLE 8, KENTUCKY

COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF CHEMISTRY

April 20, 1960

Professor G. Natta
Istituto Chimica Industriale del Politecnico
Milano, Italy

Dear Professor Natta:

We have recently completed some copolymerization studies using labeled monomers. These have been reported in the J. Polymer Science 42, 479, 491 (1960). We have also completed a study of the styrene-p-methylstyrene system using ionization chamber assay instead of direct counting.

I am very much interested in the study you and your colleagues G. Mazzanti and A. Valvassori have made of the ethylene-propylene monomer reactivity ratios using labeled ethylene.

I will be in Milan June 1-4 and would greatly appreciate having an opportunity to tell you, or Dr. Mazzanti or Dr. Valvassori, about our work and to visit your laboratories. Will it be possible for me to arrange such a visit on one of these days?

Sincerely yours,

Richard H. Wiley

Richard H. Wiley
Chairman

RHW:de

cc: Dr. G. Mazzanti
Dr. A. Valvassori

MONTECATINI
SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA
ANONIMA - CAPITALE VERSATO L. 100.000.000.000

MILANO

SETTORE PROGETTI E STUDI

Ann Wyatt

MILANO. 11 Gennaio 1960.

Si prega indirizzare a: / Please reply to: Montecatini-SEPS, Via Turati, 18, Milano (Italy)
Phone: 6333 - Cables: GABBROPROGETTI - MILANO
Telex: MI-085 - GABBRO (begin message with: SEPS)

Preg.mo Signore
Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico di
M i l a n o.

24

Isolamento per cavi ad altissima tensione (350 ÷ 500 kV).

Egregio Professore,

Sua 22.XII : dalla relazione del dr. Wyatt appare che l'inconveniente principale dei dielettrici costituiti da idrocarburi saturi è che essi sotto l'azione del campo elettrico sviluppano idrogeno o tendono a depolimerizzare.

Sotto questo aspetto gli idrocaburi aromatici, e anche il polistirolo, si comportano molto meglio. Un miglioramento si ottiene anche sciogliendo negli idrocaburi saturi (liquidi o solidi) il 5% di naftalina.

Sta di fatto che noi non possediamo i risultati di prove dielettriche di lunga durata, cioè di mesi e anni; è presente a noi che anche nel campo meccanico il comportamento delle materie plastiche sotto l'azione di sforzi prolungati continui o variabili è ancora pochissimo conosciuto. Un esempio clamoroso si è avuto quando si sono volute fare tubazioni di polietilene Ziegler.

Credo che questo sia il punto centrale della questione: finora abbiamo considerato solo gli impieghi immediati e di breve durata delle materie plastiche, come oggetti stampati, imballaggi, film, fibre, etc.

Si constata che nel campo elettrotecnico delle correnti forti gli unici polimeri che hanno riconosciuto (e sempre limitato) l'impiego sono le resine fenoliche e le epossidiche, rinforzate con carta, cotone, polvere di quarzo, etc.; e sempre limitatamente agli impieghi per interno.

Il polietilene e il polipropilene hanno rigidità dielettrica intorno a 30 kV/mm, ma la tensione pratica di impiego appare intorno a 3 kV/mm che, per un cavo a 300 kV porterebbe a uno spessore di isolamente superiore a 100 mm, per tener conto

*

dell'accentuato gradiente di potenziale in prossimità del conduttore.

In simili condizioni, il dielettrico costituisce a causa del suo spessore, anche un isolamento termico e impedisce la dissipazione del calore. Ne segue che la capacità di trasporto di energia del cavo è limitata.

Unisco documentazione circa i fattori di dissipazione dielettrica (tg δ) ammessi.

Cordialmente :

Bartolomeo Orsoni

All.
Or/sl.

ELENCO ALLEGATI:

1. Estratto da ASTM standard D 150 - 54 T (Definitions),
2. " " Norme CEI 20-9 (Norme per fili isolati),
3. " " British Standard 480 (Impregnated paper insulated cables for electricity supply)
4. " " specifications della Association of Edison Illuminating Companies (solide type impregnated-paper-insulated lead-covered cable specifications)
5. " " ASTM standard D 27-4-58 (insulation for wires and cables).

30.XII.59

June 17, 1960

Mr. P. Dell'Agnese, Manager
Waldorf-Astoria Towers
New York 22, N.Y. (USA)

our ref. 610/lv

Dear Mr. Dell'Agnese,

Thank you very much for your kind letter of May 31, and for inviting me to join the Marco Polo Club.

I would be very glad to become a Member, but unfortunately I think I shall not come to New York in a near future; therefore my membership would be almost useless.

Thanking you again, I send you my kindest regards.

Sincerely yours,

G. Mutta

July 29, 1960

Dr.Eiichi Wada
Wayne State University
College of Liberal Arts
Department of Chemistry
Detroit 2, Michigan

Our Ref.630/GN/rl

Dear Dr.Wada,

I learned from your letter that you most probably will leave U.S.A. for Japan via Europe.
If you may came to Italy, I believe that it may be of interest for you to visit my Institute, as we are developing several methods of physical studies of polymers, that is fields analogous to your work.

If, by chance, I shall be out of Milan during your visit, you may mett some coworkers of mine, e.g. Prof.Danusso, who will discuss with you on matters of mutual interest.

With best regards.

Sincerely yours,

Prof.Giulio Natta

Sept.II, 1960

Dr.Hermann F.Vieweg,
647 Lincoln Road,
Grosse Pointe 30, Michigan
(U.S.A.)

Dear Doctor Vieweg,

Thank you for your kind letter of September 9.

Since I learn from your letter that you are interested in our works, I send you, under separate cover, the list of the works which have been published by my Institute, during these last six years, in the field of the stereospecific polymerization.

With my best regards,

Sincerely yours,

G.Natta

May 12, 1960

Dr. Norman M. Wiederhorn,
c/o Arthur D. Little, Inc.
Thirty Memorial Drive,
Cambridge 42, Massachusetts
(USA)

our ref. 494/lv

Dear Doctor Wiederhorn,

with regard to your letter of May 4, I am sorry to inform you that I shall be out of town on June 20, 21 and 22, having to attend the I.U.P.A.C. Conference.

If you desire to talk about the nature of licensing agreements for the production of polypropylene, I suggest you to address yourself to Dr. B. Orsoni, Director of the Projects and Studies Dept. (SMPS), Soc. Montecatini, Via Turati 18, Milano.

With my best wished and regards.

G. Natta

(10/5)

April 28, 1960

Dr. Richard H. Wiley, Chairman
College of Arts and Sciences,
Dept. of Chemistry,
University of Louisville,
Louisville 8, Kentucky

our ref. 435/lv

Dear Doctor Wiley,

with regard to your letter of April 20, 1960, I inform you that I shall be glad to meet you in Milan, during the period June 1-4.

If, by chance, I am not in town in that period, Prof. Mazzanti and Dr. Valvassori will be very pleased to have a talk with you on the matter you are interested in, and to show you my Institute.

With my best regards,

G. Natta

10 Febbraio 1960

Egr.Dr.Giuseppe ZERBI
c/o University of Minnesota
Institute of Technology
Department of Chemistry
MINNEAPOLIS 14 - Minnesota - U

Prot.N.1295/rl

Egregio Dr.Zerbi,

La ringrazio molto della Sua gentile lettera del dicembre scorso e degli auguri che ricambio vivissimi. Le rispondo appena ora perchè sono stato molto preso dal lavoro in questi ultimi mesi.

Sono lieto che Lei possa lavorare come Honorary Fellow presso il Prof.Crawford; spero che Lei si trovi bene e possa completare la Sua specializzazione.

La pregherei di informarmi per tempo circa la data del Suo ritorno in modo che io possa interessarmi per una Sua eventuale sistemazione in Italia. La pregherei anche di informarmi, o meglio di informare il Prof.Mantica, delle notizie che possano interessarci, in particolare riguardo alle apparecchiature.

Molti auguri per il Suo lavoro e molti cordiali saluti.

(Prof.G.Natta)

UNIVERSITY OF MINNESOTA
INSTITUTE OF TECHNOLOGY
MINNEAPOLIS 14

DEPARTMENT OF CHEMISTRY

Minneapolis 15 dicembre 1959

Egregio Professore

ho il vivo desiderio che questa mia lettera le giunga prima delle feste natalizie perche' desidero le giungano, insieme alle mie notizie, i miei piu' vivi auguri.

Come Lei ha certamente saputo dal Prof. Mantica, io ho lasciato l'Italia il 9 novembre per gli Stati Uniti, diretto alla Universita' di Minneapolis, nel Minnesota. Nella speranza che lei tornasse nella prima settimana di novembre ho rimandato la data della mia partenza perche' desideravo salutarla e ringraziarla per quanto ha fatto perche' io ottenessi questa borsa di studio. Purtroppo le inevitabili difficolta' di prenotazione e di viaggio mi hanno costretto a partire il 10 novembre da Genova.

Come le e' noto, mi e' stata assegnata una delle borse di studio per giovani ricercatori italiani offerte dalla Accademia Nazionale delle Scienze di Washington per un periodo di studio nei laboratori di ricerca americani.

Grazie anche alla sua gentile lettera di presentazione, il Prof. E.Br. Crawford, direttore dell'Istituto di Chimica dell'Universita' di Minneapolis, ed insigne spettroscopista, mi ha accettato come "Honorary fellow" per un periodo di specializzazione nel suo Istituto. Mi e' cosi' possibile lavorare a contatto di esperti nel campo della spettroscopia molecolare in modo da migliorare la mia esperienza sperimentale e teorica.

Desidero a questo punto ringraziarla vivamente per avermi concesso di lavorare per tre anni nel suo Istituto a fianco del Prof. Mantica per potermi introdurre in questo campo di ricerche che mi e' di particolare interesse.

Mi permetto pure sperare che, dopo aver approfondito e migliorato la mia preparazione in questo campo, ritornando in Italia, io possa riprendere a lavorare nel suo Istituto.

Se io posso esserle utile in qualcosa, qui negli Stati Uniti, conti pure sul mio interessamento.

Rinnovandole i miei piu' sinceri ringraziamenti, la prego di accettare gli auguri piu' vivi per questo Natale e per il prossimo nuovo anno.

Dr. Giuseppe Zerbi.

Giuseppe Zerbi

AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS

COLLEGE STATION, TEXAS

Department of
CHEMISTRY

January 25, 1960

Dott. G. Natta
Istituto di Chimica Industriale
Politecnico, Milano
Italy

Egregio Dott. Natta:

Accluso alla presente troverà copie della corrispondenza che ho avuto coll'ufficio di Ricerche delle forze aeree degli Stati Uniti in Europa.

Ho espresso il mio interesso di fare un anno di ricerche in chimica in qualche Università italiana.

Lei noterà io ho sottolineato quella parte della lettera nella quale è richiesto che io faccia delle pratiche per ottenere dello spazio nel laboratorio per lavorare sul progetto di ricerca proposto.

Se Lei crede che il mio progetto La interessa, e potrà offrirmi dello spazio necessario dove proseguirlo, Le sarei molto grato se Lei potesse considerare la possibilita di espletare questo mio programma nel Suo laboratorio.

Le spese e lo stipendio saranno sostenute dall'ufficio Ricerche delle forze aeree degli Stati Uniti.

Accluso alla presente Lei troverà anche copie del programma da me proposto, ed un sommario dei miei studi, titoli conseguiti, della mia esperienza ed altri studi tecnici.

Augurandomi diricevere una Sua favorevole risposta, La prego di darmi, se è possibile, delle informazioni circa la disponibilità di abitazioni nelle vicinanze dell'Istituto.

La ringrazio del Suo interesso.

Con i miei più distinti saluti.

Suo dev^mo^,

Ralph A Zingaro

Ralph A. Zingaro

RAZ/nm

USA 1961

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, 4.8.1961

TELEF. 292.125 - 292.126
292.105 - 106 - 107

Chiar.mo Prof.G.Natta
Via M.Pagano 54
M i l a n o

Egregio Professore,

Le invio altri telegrammi arrivati oggi.

E' arrivata dall'Università una lettera indirizzata a Malatesta relativa alla proposta del premio Award per Lei.

Ho fatto vedere la lettera a Mazzanti ed è sua opinione che le obiezioni siano facilmente demolibili, anzi si è fatto dare da Serpieri il "Joint Statement" Montecatini-Ziegler che può aiutare a ribattere le obiezioni. Però la lettera di risposta dovrà essere firmata da Malatesta e tutte le mie telefonate, sia all'Università sia a casa, per rintracciarlo sono state inutili. Ho mandato allora il Magno a vedere se rintracciava qualche assistente ma l'Università è chiusa fino a settembre e il portiere non ha i recapiti di nessun professore. E' molto probabile che Malatesta sia andato a Montreal e che partecipi anche al Congresso di Detroit.
Stando così le cose, io Le mando la lettera, il Joint Statement e le lettere precedenti, ma non mi sembra il caso che Lei si metta subito a preparare la risposta, ci si potrà pensare con calma a settembre quando sarà tornato Malatesta. D'altra parte, essendo una cosa che interessa Lei personalmente, ho ritenuto necessario fargliela avere.

Ho dato disposizioni perchè Le sia respinta la posta a Champoluc nelle due settimane in cui l'Istituto sarà chiuso. Le confermo che riprenderò il lavoro mercoledì 30 agosto.

Augurando a Lei e famiglia un buon proseguimento di vacanze, Le invio molti cordiali saluti.

Rossana Lamma

Award 1960-1961

Milan, Oct. 18, 1961

Mr. J. W. Iliff, - Secretary
Advisory Committee on the
John Scott Award
3500 Grays-Ferry Ave.
Philadelphia 46, PA (USA)

Dear Mr. Iliff:

Thank you for your letter of July 24. I apologize for my belated answer, but your letter arrived here during my Summer holidays.

First of all, I wish to clarify some misunderstandings arisen on the work of G. Natta and K. Ziegler in some American environments, particularly in those interested in this matter, because they have either pending patents or a Ziegler license. The relations between Montecatini (the Company dealing with the commercial appliances of Natta's patents) and Prof. Ziegler are clarified by a joint statement by Montecatini and Ziegler, written by mutual consent and published in Chemical Engineering News, a photocopy of which is herewith enclosed.

It appears from your letter that the stereospecific polymerization of ethylene was accomplished before that of propylene. It must be borne in mind that a "stereospecific polymerization of ethylene" cannot exist and that it is impossible to speak of a "stereoregular polyethylene" as indicated in your letter, since the monomeric unit of ethylene does not contain asymmetric centers (either optical or geometrical). Ziegler polyethylene, obtained at low pressure, differs from the I.C.I. one, obtained at high pressure in the degree of crystallinity, which is higher in the Ziegler polymer owing to a lower number of branchings present, and not to steric reasons, concerning the structure of the monomeric units of ethylene. Marlex, which is a Phillips polymer free from branchings, shows a degree of crystallinity which is even higher than that of some Ziegler-type polyethylenes.

I wish to call again your attention to the fact that the Ziegler patent on polypropylene has priority August 1954, whereas the Natta patent has priority June 1954. Moreover, while the Ziegler patent only described a process for the polymerization of propylene, Natta, already in his first patent, described

the separation of the crystalline polymers from the amorphous ones, and demonstrated that crystallinity is due to the regularity of the steric configuration of monomeric units in the macromolecule.

He successively developed highly stereospecific proceedings for the obtainment of highly crystalline polymers, even in the crude state.

I also remind you that Natta was the first chemist able to obtain isotactic and syndiotactic hydrocarbon polymers of alpha-olefins and of diolefins.
In particular, in the field of diolefins, he isolated for the first time, crystalline butadiene polymers with trans 1,4-structure, and obtained cis 1,4 polymers with a very high steric purity (higher than 98%). He also pointed out the importance of the steric purity on the physical and mechanical properties, particularly on the dynamic ones, of cis 1,4 polybutadiene.

The research done by Natta in the field of new synthetic rubbers permitted obtaining new elastomeric products by copolymerization of ethylene with alpha-olefins.
For all his works on synthetic rubber he recently received the first International Synthetic Rubber Gold Medal. Photocopies of the reprint on the award ceremony and of the award itself are herewith enclosed.

Natta recently developed also proceedings for the preparation of stereoregular polymers from non hydrocarbon monomers, and discovered the di-isotactic polymers, thus applying the stereospecific polymerization also to non vinyl monomers.

He discovered and described the structure of di-isotactic polymers and of polymers containing simultaneously asymmetric centers both geometrical and optical, for instance in the case of substituted butadiene polymers, of 1,3-pentadiene, of alkyl sorbates, etc.

More recently, with the use of optical inactive monomers, he accomplished the asymmetric synthesis of optical active polymers.

I will be glad to give you any further comments you may wish.

Accept my kindest regards,

Luciano Malatesta

ADVANCES IN CHEMISTRY SERIES
ANALYTICAL CHEMISTRY
CHEMICAL AND ENGINEERING NEWS
INDUSTRIAL AND ENGINEERING CHEMISTRY
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
JOURNAL OF CHEMICAL AND ENGINEERING DATA

ACS APPLIED PUBLICATIONS
PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth St., N. W., Washington 6, D. C. • REpublic 7-3337

RICHARD L. KENYON
Editorial Director

8 June 1961

Professor Giulio Natta
Istituto di Chimica Industriale
Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

Recently we received from Mr. Lucio Lucini, President of the Chemore Corporation, Volume Six of your collected papers. We are adding this to the five volumes already included in the library of the American Chemical Society here in Washington. We are indeed proud to be one of the possessors of a set of your collected works.

I send cordial personal regards.

Sincerely,

Richard L. Kenyon

Richard L. Kenyon

RLK:mhl
cc: Mr. Lucio Lucini

J.A.C.S.

Il volumetto è la traduzione inglese effettuata da A.B.Morris dell'Università di Hull dell'edizione Russa pubblicata nel 1959. In esso vengono riportate sole notizie precedenti tale data, e manca quindi delle vaste conoscenze acquisite negli ultimi anni nel campo delle poliolefine. Gli Autori che hanno personalmente effettuato ricerche in tale campo, riportano certi risultati e certe interpretazione basate sui lavori effettuati in Russia. Manca però tanto per i lavori russi, quanto per quelli effettuati in Europa ed in America, una completa bibliografia. Vengono riportati solo i nomi degli Autori, ma non citati quelli delle Riviste, nè la data delle pubblicazioni. Il traduttore, competente negli argomenti trattati, ha portato qualche piccola modifica nella traduzione, adottando simboli diversi ed, in qualche caso, variando alcune formule e ~~le loro dimensioni~~, per renderle più comprensibili usando convenzioni adottate dai chimici-fisici europei ed americani.

Nella Introduzione si accenna ai polimeri dell'etilene, a basso peso molecolare, ottenuti già dal 1884 da chimici russi, ed alla ben maggiore importanza degli altri polimeri dell'etilene ottenuti sia ad alta che a bassa e media pressione, ed a quelli del propilene per le loro possibilità di impiego nel campo delle materie plastiche, delle fibre e dei films.

Nel capitolo I vengono considerate materie prime di origine petrolifera delle diverse regioni (petrolifere) e vengono in particolare riportate le loro composizioni medie e quelle dei gas naturali russi che per il loro elevato contenuto in frazioni C_2-C_3 si prestano meglio alla produzione di etilene e propilene per deidrogenazione.

Il capitolo II riguarda la produzione del polietilene con processi ad alta pressione, riguardanti la struttura e le proprietà fisiche e chimiche.

Il capitolo III riguarda la produzione di polietilene a bassa pressione

col processi Ziegler per la produzione di composti metallorganici del litio e dell'alluminio. Nel confrontare le proprietà dei polimeri polietileni ottenuti ad alta ed a bassa pressione, gli Autori di riferiscono a dei prodotti medi, ma non considerano le notevoli variazioni di proprietà sia dei polietileni ad alta pressione (le cui proprietà variano notevolmente col grado) e di quelli a bassa pressione che variano notevolmente col variare del contenuto dei gruppi metilici (da circa 0,1% per dei più tipici catalizzatori Ziegler a meno di 0,01% con catalizzatori aventi un supporto cristallino) che comporta notevoli variazioni nella cristallinità, nella temperatura di fusione (da 130° a 138°).

Nel Capitolo IV vengono riportati i prezzi a pressione media sviluppati dalla Philips e dalla Esso Standard Oil dell'Italiana per la produzione di polietilene di alto peso molecolare con l'impiego di catalizzatori a base di oxidi e contenenti rispettivamente composti di molibdeno e di cromo.

Il capitolo V riguarda le variazioni di proprietà del polietilene trattato con radiazioni di alta energia. A pag. 53 viene detto precisamente che la temperatura di fusione del polietilene irradiato può superare i 200°. Si tratta evidentemente della temperatura di rammollimento e di scorrimento viscoso, poichè la temperatura di fusione vera, che corrisponde alla completa fusione dei cristalliti non supera per nessun non polietilene i 138°, [illegible] valore corrispondente a quelli più limpidi e viene riletta e non essenziale per effetto delle radiazioni che si riducono la cristallinità.

Capitolo VI. - Tratta del polietilene [illegible] la sua preparazione e le sue proprietà. Il termine Hyalon per indicare il prodotto fabbricato in USA corrisponde ad un [illegible] di stampo ed evidentemente si riferisce all'[illegible].

Il Capitolo VII esamina le applicazioni [illegible] industriali e domestiche dei polietileni. In questo punto di vista vengono confrontati i prodotti ottenuti ad alta e bassa pressione anche per il loro impiego per la produzione di fibre.

Il Capitolo VIII tratta la preparazione, le proprietà e le applicazioni dei nuovi polimeri del propilene riportando i risultati e le configurazioni steriche dei prodotti e la loro influenza sulle proprietà riferendosi principalmente ai risultati pubblicati da Autori italiani. Tra le applicazioni del polipropilene vengono riportate succintamente quelle delle fibre (confrontate con quelle del Nylon) e quelle delle film (confrontate con quelle del polietilene). Infine vi è una breve aggiunta da parte del traduttore relativa all'interpretazione del meccanismo dei processi di polimerizzazione. Tenuto conto che la traduzione inglese è stata effettuata nel 1961, tale aggiunta risulta piuttosto incompleta soprattutto per quanto riguarda i processi di trasferimento di catena che regolano il peso molecolare e le interpretazioni della stereospecificità.

Il libro, scritto in modo chiaro si legge facilmente e può essere utile per studenti e per chi dei non specializzati, che desiderino farsi una idea generale sulle nuove poliolefine, che tanta importanza stanno assumendo nel campo della chimica macromolecolare e per le loro applicazioni.

Il testo fornisce anche una idea dell'interesse che l'argomento ha suscitato anche nei Paesi oltre oceano sui quali spesso difettano notizie.

La mancanza di una completa bibliografia, come ho già detto, rende il libro meno utile per chi voglia specializzarsi in tale campo.

ACS APPLIED PUBLICATIONS

ANALYTICAL CHEMISTRY
CHEMICAL AND ENGINEERING NEWS
INDUSTRIAL AND ENGINEERING CHEMISTRY
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
JOURNAL OF CHEMICAL AND ENGINEERING DATA

ADVANCES IN CHEMISTRY SERIES

PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth St., N. W., Washington 6, D. C. • REpublic 7-3337

October 30, 1961

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vince 32
Milan, Italy

Dear Dr. Natta:

In further regard to your letter of October 11th, I regret to say that I neglected to mention two points which are rather important about the paper you plan to offer for our volume in "Polymerization and Polycondensation Processes."

One point is that the paper you offer should be original; that is to say, that it should be one which has not been published elsewhere in any language. This is a point we are asking all authors to observe.

The other point is that we will need to have your paper by December 1 in order to include it in the volume.

Sincerely yours,

Robert F. Gould

Robert F. Gould
Editor

RFG:sb

Paper

ACS APPLIED PUBLICATIONS
ANALYTICAL CHEMISTRY
CHEMICAL AND ENGINEERING NEWS
INDUSTRIAL AND ENGINEERING CHEMISTRY
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
JOURNAL OF CHEMICAL AND ENGINEERING DATA

ADVANCES IN CHEMISTRY SERIES
PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth St., N. W., Washington 6, D. C. • REpublic 7-3337

October 27, 1961

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

Dr. Mark has passed to me your letter of October 11 with your question about the type of paper to be included in our volume on "Polymerization and Polycondensation Processes." We will be happy to have either paper, but our preference tends towards the detailed paper on a specific field. We hope we can receive your paper in the fairly near future, because publication plans are proceeding, and a number of papers are already in hand.

Sincerely yours,

Robert F. Gould

Robert F. Gould
Editor

RFG:sb
cc: Dr. H. F. Mark
Dr. Norbert Platzer

ACS APPLIED PUBLICATIONS

ANALYTICAL CHEMISTRY
CHEMICAL AND ENGINEERING NEWS
INDUSTRIAL AND ENGINEERING CHEMISTRY
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
JOURNAL OF CHEMICAL AND ENGINEERING DATA

ADVANCES IN CHEMISTRY SERIES
PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth St., N. W., Washington 6, D. C. • REpublic 7-3337

November 7, 1961

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vince 32
Milan, Italy

Dear Dr. Natta:

Because we are working on a very tight schedule, it is important that the paper you are preparing for our Advances in Chemistry Series present no problem which can be avoided in the beginning.

We are enclosing our Guide for Authors, which summarizes our copy requirements. Your attention is called particularly to our style for arrangement of literature references, and to our specifications for illustrative material. As an added convenience we are enclosing a list of journal abbreviations. These are from the List of Periodicals Abstracted by Chemical Abstracts and include journals frequently cited.

Your cooperation in following our copy requirements will be much appreciated.

Very truly yours,

Robert F. Gould
Editor

RFG:SA:jm
Enclosures

cc: Dr. H. F. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York
(with enclosures)

Dec.6, 1961

Mr.R.F.Gould, Editor
Advances in Chemistry Series
Washington , D.C. (USA)

cc: Prof.H.Mark,
Polytechnic Institute of
Brooklyn, N.Y. (USA)

our ref.930/lv

Dear Mr.Gould:

Your letters dated October 27 and 30, in which you had informed me that the article for "Advances in Chemistry Series" should be an original work and reach you within Dec.1, arrived here only on November 20.

I regret to inform you that no paper dealing with completely original work is ready. Therefore I am sorry to inform you that I cannot send you my contribution to the Volume:"Polymerization and Polycondensation Processes".

With my best regards,

G.Natta

Au
Basford

Dec.28, 1961

Miss Patricia Nowicki,
Account Executive,
Public Relations Dept.,
G.M.Basford Co.
60 East 42nd Street,
New York City 17, New York (USA

Dear Miss Nowicki:

I apologize for my addressing to you again with regard to the S.P.E. Technical Conference scheduled for 1962.

As Professor Natta wrote to you on Oct.9, 1961 (our ref. 820/lv), he will be unable to participate in that Conference this time, owing to innumerable other engagements he cannot postpone. In the quoted letter, he also asked you to inform the Organizing Committee of his impossibility.

Now he has received a telegram, whih sounds as follows:

" Tech.Conference on polypropylene to be held 4/17/62 SPE Philadelphia section. Reply by 12/31/61 if able to participate in polymer science section. C.C.Deegan".

Professor Natta, before leaving Milan for a short period of rest, charged me to ask you to confirm his impossibility to come and participate in the 1962 SPE Conference, though he regrets it very much. He sincerely hopes to be able to accept their kind invitation on another accasion.

Accept my kindest regards and season's greetings.

R.Lamma (secretary)

Dec.4, 1961

Miss Patricia Nowicki,
Account Executive,
Public Relations Dept.,
G.M.Basford Co.
60 East 42nd Street,
New York City 17, N.Y. (USA)

Dear Miss Nowicki:

Thank you for the twenty-five reprints of Prof.Natta's article, you kindly sent to us by air mail, on November 27.

We are looking forward to receiving the remaining copies sent via steamer.

Cordially,

G.Crespi

GC/lv

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

November 27, 1961

Dr. Giovanni Crespi
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Dr. Crespi:

Attached are the twenty-five advanced copies of the reprint of Dr. Natta's article from the July, 1962 issue of RUBBER AGE. The remaining 475 copies are being sent by steamship and they are leaving our offices today.

We will invoice you as soon as we receive the printer's statement.

Cordially,

Patricia Nowicki

Patricia Nowicki
Account Executive
Public Relations Department

PN/bd
Enc.

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

November 17, 1961

Dr. Giovanni Crespi
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Dr. Crespi:

We expect delivery next Tuesday of the reprints of Dr. Natta's article on vulcanization from the July issue of RUBBER AGE. Because reprints are done in multiples of four and this particular article was a four-page article, it would have been awkard and considerably more expensive to have it done with a special cover. Presuming that you would abide by our judgement, 500 copies have been ordered as a four-page reprint without cover.

We will ship them to you next week via steamer, but I will air mail 25 copies in advance for your immediate use.

We will invoice this job as you directed in your letter of October 19th.

Cordially,

Patricia Nowicki

Patricia Nowicki
Account Executive
Public Relations Department

PN/bd

original mail
copy arrived
by Fred

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

October 4, 1961

Dr. Giulio Natta
Director of the Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

Despite the fact that I know you have been contacted about this several times before -- and probably several times during Mr. Sasso's recent visit to Milan -- there still seems to be some confusion over the question of your preparing a paper for the up-coming SPE Technical Conference scheduled for 1962. Mr. Sasso reported it was almost certain that you would prepare a paper. It has now reached the time when we must have a definite answer.

I spoke with Mr. Kiessling, chairman of the Conference this morning and he tells me that the absolute deadline for material to be in the hands of the committee is October 25th -- with no exceptions. Therefore it would be most helpful if we could tell the committee whether it can expect that you will submit a paper for the Conference. Needless to say, the SPE would be honored to have you prepare a paper and has already expressed disappointment at the prospect that this might not transpire.

Dr. Natta, I know you are a very busy man and that you are still recuperating from your recent surgery, but I would be extremely grateful if you would inform me of your decision on this matter as soon as possible.

Many thanks.

Cordially,

Patricia Nowicki

PN/bu

Patricia Nowicki
Account Executive
Public Relations Department

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

Ann

September 15, 1961

Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32, Milano,
Italy

Dear Dr. Natta:

Your letter was a pleasure to receive and I feel truly honored that you took time from your busy schedule to write.

I hope your recovery is rapid and complete, and that you can soon return to the work you love so much. Had it not been for your discoveries, my association with Montecatini could never have happened. The relationship has been a very rewarding and exciting one.

Hopefully, I will have the privilege of meeting you sometime in the near future.

Sincerely,

Patricia Nowicki

PN/bu

Patricia Nowicki
Account Executive
Public Relations Department

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

July 18, 1961

Professor Giulio Natta
Polytechnic Institute of Milan
Pizza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

Attached is a copy of your article on the vulcanization of ethylene-propylene copolymers. As you will see this appeared in the July issue of RUBBER AGE, a leading publication in the rubber field. I am sure you will be pleased with the publication and will be especially happy to know that the editor honored our request to have the manuscript published as originally written.

Cordially,

Patricia Nowicki

Patricia Nowicki
Account Executive
Public Relations Department

PN/bu
encl.

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

July 25, 1961

Professor Giulio Natta
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

Enclosed is a copy of the August Scientific American with your article. I do hope that it meets with your approval.

Notice that it is the "lead" article in the magazine, and that the editors have gone out of their way to make it visually attractive and instructive.

May I say how much we appreciate your cooperation in this matter. And I should like to say a word, too, in appreciation for the help Dr. Serpieri was able to give us on this material during his visit to the United States.

I hope this letter finds you feeling somewhat better.

Best regards,

Arthur M. Weinberg

Dr. Arthur M. Weinberg
Vice President
Public Relations Department

AMW:mt
Enclosure

CC: E. Serpieri

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

July 20, 1961

Professor Giulio Natta
Polytechnic Institute of Milan
Pizza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

Attached is a copy of your editorial on "New Frontiers in Macromolecules" which appeared in the July issue of SPE TRANSACTIONS.

You will probably notice that the only changes made were those necessary for style purposes. The Transactions is a new prestige publication of the Society of Plastics Engineers and is distributed to 55,000 members of this very important group.

Cordially,

Patricia Nowicki
Account Executive
Public Relations Department

PN/bu
encl.

CC: Dr. Serpieri

BILLERICA RESEARCH CENTER

CABOT CORPORATION CONCORD ROAD, BILLERICA, MASSACHUSETTS

CABLE ADDRESS "CABLAK" BOSTON
TELEPHONE: BILLERICA - MONTROSE 3-3455
VIA BOSTON - LIBERTY 2-7300

730

Ann Cabot

September 21, 1962

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32,
Milano, Italy

Dear Professor Natta:

Thank you for your letter of September 18, 1962 which I received today and also for your telegram of the 18th.

By now Dr. Naar should have been in contact with you since I advised him by cable to do so.

My congratulations to Professor Corradini on his appointment at the University of Naples.

Many thanks for allowing Dr. Naar to visit with you. With kind personal regards.

Very truly yours,

J C MacKenzie

J. C. MacKenzie,
Associate Director

JCM:is
cc: R. Naar

BILLERICA RESEARCH CENTER

CABOT CORPORATION CONCORD ROAD, BILLERICA, MASSACHUSETTS

CABLE ADDRESS "CABLAK" BOSTON
TELEPHONE: BILLERICA - MONTROSE 3-3455
VIA BOSTON - LIBERTY 2-7300

Corradini

September 10, 1962

Professor Giulio Natta
54 via Mario Pagano
Milano, Italy

Dear Professor Natta:

One of my colleagues Mr. Raymond Naar will be journeying from Athens to London via Italy during the week of September 18.

Mr. Naar who is presenting a theoretical paper at the Society of Chemical Industry Meeting in London, on polymer blending, would appreciate having the opportunity to meet with Professor Corridini to discuss subjects of mutual interest. If this can be satisfactorily arranged would you kindly advise me if some date near the end of the week of September 18 would be convenient.

It was a pleasure to see you and Mrs. Natta again at Moretonhampstead. Please give her my best regards.

With kindest respect to yours,

Very truly yours,

CABOT CORPORATION

Jcm

J. C. MacKenzie

JCM:is
cc: RLN

Sept.9, 1961

Dr.Arthur M.Weinberg,
Vice President,
Public Relations Dept.
G.D.Basford Company,
60 East 42nd Street,
New York City 17, N.Y. (USA)

our ref.703/lv

Dear Doctor Weinberg:

I apologise for answering your kind letter of July 25, 1961 with some delay - due to a surgical operation I underwent two months ago, which compelled me to spend a long period of convalescence. Only a few days ago I started working again in my laboratory.

Thank you very much for the case with which you had published my article in Scientific American.

A great number of chemists from all over the world have required us reprints of this article, and we look forward to receiving them, I believe, through Dr.Serpieri.

If Scientific American likes other articles by me, I can, within a few months, write one paper either on "Taylor-made giant molecules" or on grafted macromolecules.

With my best personal regards.

G.Natta

Sept.9, 1961

Miss Patricia Nowicki,
Account Executive,
Public Relations Dept.
G.M.Basford Company
60 East 42nd Street,
New York City 17, N.Y. (USA)

Dear Miss Nowicki:

I apologize for answering your kind letter of July 18, with some delay - due to a period of complete rest I had to take after a surgical operation.

I wish to thank you for sending me a copy of my article on the vulcanization of ethylene-propylene copolymers, and for the promptness with which, thank to your care, my article was published.

With kind regards,

G.Natta

Oct.19, 1961

Miss Patricia Nowicki,
Account Executive,
Public Relations Dept.
W.A.Basford Company,
60 East 42nd Street,
New York City 17, N.Y. (USA)

Dear Miss Nowicki:

Further to Prof.Natta letter of Sept.9, I would ask a pleasure of you.

We would like to receive 500 copies (75 without cover to be invoiced to the Biblioteca Centrale - Politecnico - P.za L.da Vinci 32 - Milano) of reprints of Prof.Natta and co-workers' article on the vulcanization of ethylene-propylene copolymers, which appeared in the July issue of Rubber Age.

Your help in this connection will be much appreciated.

Thank you and kind regards,

G.Crespi

GC/lv

Oct.9, 1961

Miss Patricia Nowicki,
Account Executive,
Public Relations Dept.
G.M.Basford Co.
60 East 42nd Street,
New York City 17, New York

our ref.820/lv

Dear Miss Nowicki:

Thank you for your letter of October 4, from which I learn that the deadline for material to be presented at the SPE Technical Conference is October 25th.

As you know, I underwent an operation last July: that is why I was compelled to spend a long period of convalescence. Only now I have started working again at my Institute, and I am so overwhelmed with behindhand duties that I cannot devote myself to other works. I have also got a great number of previous engagements I cannot postpone: therefore it is impossible for me to write a lecture for the SPE Conference.

Please, explain this thing in the best way to the Organizing Committee of the SPE Conference and justify my refusing their invitation, which was, indeed, highly appreciated.

Kindest regards,

G.Natta

BILLERICA RESEARCH CENTER

CABOT CORPORATION CONCORD ROAD, BILLERICA, MASSACHUSETTS

CABLE ADDRESS "CABLAK" BOSTON

TELEPHONE: BILLERICA - MONTROSE 3-3455
VIA BOSTON - LIBERTY 2-7300

April 24, 1962

Professor G. Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Prof. Natta:

Thank you for your letter of April 19 and your kindness in extending an invitation to Dr. Heitmiller to visit your Institute.

Dr. Heitmiller is now back in this country. He contacted your office on April 17. Unfortunately, you were not there and his Italian was such that his purpose in calling was not understood.

It is quite possible that he will be in Milan in the not too distant future at which time, if we may consider the invitation open, he will be in touch with you or Dr. Crespi.

With kindest personal regards.

Very truly yours,

CABOT CORPORATION

J C MacKenzie

JCM:mls

J. C. MacKenzie, Head
Organic & Polymer Research

avrei potuto intracciarmi
h) 6 h al Lab
h) quando avrei occasione
di tornare a Uni M piacere
di incontrarlo, e se fosse
ancora poté parlare con la mia segretaria
di parla inglese - Numero diretto -

BILLERICA RESEARCH CENTER

CABOT CORPORATION CONCORD ROAD, BILLERICA, MASSACHUSETTS

CABLE ADDRESS "CABLAK" BOSTON

TELEPHONE: BILLERICA - MONTROSE 3-3455
VIA BOSTON - LIBERTY 2-7300

April 12, 1962

324

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

It is slightly more than two years since I last had the pleasure of visiting you in Milano and, unfortunately, I do not have a visit scheduled in the foreseeable future. However, one of my colleagues, Dr. Richard F. Heitmiller, who has had considerable experience in fibers and plastics research and evaluation, is expecting to be in Milano during the week of April 16. con chi può parlare?

Although Dr. Heitmiller's stay in Milano will be brief, should his schedule permit I would appreciate it if he were able to pay you our respects. Perhaps also you may permit him to visit your Institute and meet some of your collaborators. If this is impractical, we shall understand. Therefore, time permitting, Dr. Heitmiller will be in contact with your office.

With thanks and my personal regards to Mrs. Natta and yourself.

Very truly yours,

CABOT CORPORATION

J C MacKenzie

J. C. MacKenzie, Head
Organic & Polymer Research

JCM:mls

RESEARCH LABORATORIES

CABOT

CABOT CORPORATION 38 MEMORIAL DRIVE, CAMBRIDGE 42, MASSACHUSETTS

CABLE ADDRESS "CABLAK" BOSTON
TELEPHONE UNIVERSITY 4-1430

September 19, 1961

Dr. G. Natta
Director
Instituto di Chemica
Industriale del Politechnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta,

We would appreciate your sending us 2-6 reprints of your article, "Physical and Technical Properties of Cis-Polubutadiene," which appeared in Rubber and Plastics Age, volume 42, pages 276-82(March 1961). 504

Our records show that in July and August of 1961, we requested one copy of an article by G. Mazzanti and yourself which appeared in Tetrahedron, volume 8, number 1/2, pages 86-100(1960), and two copies of the article entitled "Vulcanisation of elastomeric properties of ethylene propylene copolymers." Neither of these has been received to date. Are they still available? If so, please include these articles in the shipment. 388 463

Thank you for your consideration.

Very truly yours,

CABOT CORPORATION
Rochelle Stuart
Rochelle Stuart
Technical Information Service

Sept.18, 1962

Mr.J.C.MacKenzie,
Billerica Research Center,
Cabot Corporation,
Concord Road,
x Billerica, Massachusetts (USA)

our ref. 697/lv

Dear Mr.MacKenzie:

Your letter of Sept.10, 1962, reached me yesterday on my return to Milan; to-day I have sent you the following telegram: "Corradini presently Naples, Via Mezzocannone, will be Milan Polytechnic September 19. Please, inform me date arrival Dr. Naar. Natta".

As a matter of fact, Corradini was a short time ago appointed Professor of General Chemistry at the University of Naples, Via Mezzocannone 4; he will be certainly pleased if Dr.Naar can go and visit him in his Institute.

Corradini will be in Milan to-morrow, Sept. 19, and I will inform him about the possible visit of Dr.Naar.

Since I do not know the address of Dr.Naar and I fear you cannot contact him in time, I hope he will call me up on his arrival to Milan.

My wife joins me in sending you kindest regards.

Giulio Natta

Sent airmail

BILLERICA RESEARCH CENTER

CABOT

CABOT CORPORATION CONCORD ROAD, BILLERICA, MASSACHUSETTS

CABLE ADDRESS "CABLAK" BOSTON
TELEPHONE: BILLERICA - MONTROSE 3-3455
VIA BOSTON - LIBERTY 2-7300

697

Ann Cabot

September 10, 1962

Professor Giulio Natta
54 via Mario Pagano
Milano, Italy

Dear Professor Natta:

One of my colleagues Mr. Raymond Naar will be journeying from Athens to London via Italy during the week of September 18.

Mr. Naar who is presenting a theoretical paper at the Society of Chemical Industry Meeting in London, on polymer blending, would appreciate having the opportunity to meet with Professor Corridini to discuss subjects of mutual interest. If this can be satisfactorily arranged would you kindly advise me if some date near the end of the week of September 18 would be convenient.

It was a pleasure to see you and Mrs. Natta again at Moretonhampstead. Please give her my best regards.

With kindest respect to yours,

Very truly yours,

CABOT CORPORATION
ORIGINAL SIGNED BY
J. C. MACKENZIE

J. C. MacKenzie

JCM:is
cc: RZN

May 2, 1962

Dr.J.C.MacKenzie, Head,
Organic & Polymer Research,
Billerica Research Center,
Cabot Corporation,
Concord Road,
Billerica, Massachusetts (USA)

our ref.368/lv

Dear Dr.MacKenzie:

I was sorry to learn from your letter of April 24, 1962 that Dr.Heitmiller came to Milan, but he could not contact me.

If another opportunity arises for him to come to Milan, I shall be glad to meet him. If I am absent, he can speak to my Segretary, who certainly speak English. My private telephone number at the Institute, is 235.181.

With my kindest regards.

G.Natta

April 19, 1962

Mr.J.C.MacKenzie, Head
Organic & Polymer Research
Billerica Research Center,
Cabot Corporation,
Concord Road,
Billerica, Mass. (USA)

our ref.324/lv

Dear Doctor MacKenzie:

Thank you for your kind letter of April 12. My wife joins me in thanking you for your kind memory of us. We hope that an opportunity will arise in the near future for you and Mrs.MacKenzie to come to Europe. We shall be delighted to meet you again.

With regard to the visit of Mr.Heitmiller, I shall be glad to meet him, if he comes when I am in town. In fact I leaving to-morrow for Easter holidays, and will be out of town for about 1 week. In any case, if Mr.Heitmiller comes when I am absent, he will meet Dr.Crespi, who among my co-workers is the most qualified in the field Mr.Heitmiller is interested in.

With my kindest regards,

G.Natta

July 21, 1961

Prof. F. D. Rossini, Director
Chemical & Petroleum Research
Laboratory,
Carnegie Institute of Technol
Pittsburgh 13 - Pennsylvania

GN/lv

Dear Professor Rossini,

I wish to thank you very much for sending us infrared, ultraviolet and mass spectral data for the period 7-1-60 to 12-31-60.

With my kindest regards.

G. Natta

3 novembre 1961

Warmest congratulations. Giulio Rosita Natta

Melvin Calvin - Chemistry
University of California
Berkeley 4 - California (USA)

PALACE HOTEL
MILANO

Ass
Celanese mi ha dato indirizzo del Professore

Prof Natta
54, Via M. Pagano
Milan

Feb 14th 1961

Mon Cher Prof Natta.

Pardonnez moi de l'usage de crayon mais j'ecrit dans un chambre d'Hotel. Permettez moi d'introduire moi-même : mon nom est «Frank Brown» Je ne parle pas Italien. Je suis leur directeur technical de Le «Celanese Plastics Company» 744 Broad Street Newark New Jersey U.S.A. Ma Compagne appartient au Celanese Corporation of America.

Nous ~~deur~~ voulons de parler avec vous de votre nouveau publication sur les aldehydes isotactique. Cette discussion peut-être, ~~doura~~ fera chacun bien content.

Je téléphonie ~~vous~~ chez vous aujourd'hui

December 1961

Prof. G Natta
Instituto Di CHIMICA Industriale Del Politechno
Piazza Leonardo DA Vinci 32
Milan

Dear Prof Natta

With reference to your letter dt Nov 10th 61. I cannot thank you very much for giving me an opportunity to meet you and for the invitation for lunch or Dinner. As I will be arriving in Milan on 21st Jan '62 as per itinerary attached, it would be my extreme pleasure to meet you and spend time with you. I will be very ~~glad~~ very much appreciate if you could suggest the exact time of meeting and any programme there after. I will also be visiting Passirano Laboratories, Milan, which is a subsidiary of our Company W. R. Grace. Looking forward to hear your reply

Thanks

Yours Sincerely
R. N. Chopra
7100 Cedar Avenue
Takoma Park
Md

Please note the time of arrival and the flight number

LIST OF TOPICS

1. Methods of determining rates of polymerization. Importance of stepwise rate determination. General kinetics of copolymerization.

2. Copolymerization rates of 1:2 disubstituted ethylenes. Special reference to hetero-polymerization.

3. Intereffects of variables and nonvariables in determining the rates of copolymerization.

4. Study of chain transfer with solvents, monomers and catalysts in addition polymerization.

5. My impressions of people and polymer chemistry abroad in the last five years.

CIGA
PALACE HOTEL
MILANO

mais vous etiez envoyé. ~~Je~~
Je téléphonerai à vous de Londres
at 17:00 hours à dimanche Feb. 12th.
Je parle francais un peu et aussi Anglais
mais non Italien. Je voudrais d'arranger
~~ce à cette fois~~ à cette temps un
rendez vous avec vous à Milan pour la
prochaine semaine — Samedi 18th of Feb ou
Monday 20th.
Ma addresse à Londres est

Frank Brown
c/o Celanese Corporation of America
49 Old Bond Street
London W1.
England

Telephone Hyde Park 0029

S'il vous plait excusez le crayon et le
Francais

Frank Brown

Dec.5, 1961

Dr.R.K.Chada,
7100 Cedar Avenue,
Takoma Park, Md.,U.S.A.

our ref.981/lv

Dear Doctor Chada:

I have received your letter from which I learn that you will arrive in Milan on Jan. 21, 1962.

e domeni

I do hope I shall be in Milan on that day, but if, by then, I am not back from the journey abroad I have scheduled, two co-workers of mine, Prof.Massanti and Prof.Pasquon will be glad to meet you.

I would mostly appreciate your reporting us the most significant data drawn from the lectures presented at the Annual Meeting of A.I.Chem.E. held in New York in these days.

With my kindest regards,

G.Natta

WASHINGTON, 3 D.C.
NOV 13
11:30AM
1961

DEFEAT
MUSCULAR DYSTROPHY
SUPPORT MDAA

US POSTAGE
11¢
AIR MAIL

Prof. G. Natta
Dir. of Institute of Ind. chem.
Polytechnic Institute of Milan
Milan. Italy.

AÉROGRAMME • PAR AVION

FIRST FOLD

SECOND FOLD

Am/Chaudhri

14 NOV. 1961

R

Prof G. Natta
Dir of Institute of Ind chemistry
Polytechnic Institute of Milan
Milan Italy

Dear Prof Natta.

With reference to further clarification of my last letter please note that this trip is not sponsered by W. R. Grace & Co, although I am an employee of this Company and it is an outcome of my own enterprise. The Company is aware of my plans for this trip, however.

Thanks

R. N. Chaudhri
7100, Cedar Avenue
Takoma Park, Maryland
U.S.A.

MOISTEN FLAP WELL AND APPLY PRESSURE

It is particularly interesting to examine the products obtained by grafting of vinyl chloride on poly-α-olefin, because of the difference in solubility as compared to the homopolymers. Such grafting proves to be rather difficult, and it is necessary to adopt particular conditions to avoid the formation of vinyl chloride homopolymers to the exclusion of grafting. The high solubility of amorphous poly-α-olefins in aliphatic hydrocarbons allows the non-grafted poly-α-olefins to be separated with ease from the homopolymers and from the grafted polymer of vinyl chloride. A separation, at least in part, of the last can be carried out, although less easily, by dissolution or by fractional precipitation of solutions in ketonic solvents. If the polymerization is carried out in an aqueous emulsion in the presence of polyethylenamines, grafting occurs in preference to homopolymer formation (Table IV).

The plasticizing action of the poly-α-olefins bound to the grafted polyvinyl chloride (PVC) is quite different from that of the conventional PVC plasticizers. The latter contain polar groups which tend to form association complexes with the polar groups of the polyvinyl chloride, thus behaving as good solvents. On the contrary, the poly-α-olefins do not show any affinity with polyvinyl chloride and would separate out if they were not grafted. The grafting prevents the separation of the poly-α-olefins; these in turn, do not prevent the association of the polyvinyl chloride chains among themselves. As a consequence, the lowering of the second-order transition temperature is not observed as it is with the conventional plasticizers, an increase in resilience and ultimate elongation, and a relatively small reduction of the ultimate tensile strength are noted.

The variety of problems in which this institute has been interested in recent years, has compelled us to limit this study to only a first orientative survey concerning the problems of grafting. Nevertheless, it seems that the methods we have employed look more interesting than those which utilize high energy radiations or initiators with a low molecular weight. Also, the results of studies of reticulation of α-olefin polymers by chemical methods appear more interesting than those involving high energy radiation. The high number of tertiary carbon atoms very clearly differentiates the poly-α-olefins from polyethylene, especially when highly crystalline, and makes the poly-α-olefin more sensitive to chemical reticulation and grafting processes which are milder and more easily controlled than high energy radiation processes.

References

(1) G. Natta and E. Beati, U.S. Patent.

(2) J. D. Bolland and G. Gee, *Trans. Faraday Soc.*, **42**, 236 (1946); J. L. Bolland, *Proc. Roy. Soc. (London)*, **186A**, 218 (1946).

(3) V. Stannett, A. E. Woodward, and R. Mesrobian, *J. Phys. Chem.*, **61**, 360 (1957).

(4) J. A. Manson and L. H. Cragg, Canadian High Polymer Forum Ontario 1955; *Angew. Chem.*, **67**, 332 (1955).

Professor Malcolm Dole
Department of Chemistry
Northwestern University
Evanston, Illinois
U.S.A.

1961 ILL.

EVANSTON, ILL.
MR 17 7 PM
1961

POSTAGE
AIR MAIL 10

Professor Giulio Natta
Istituto Chimica Industriale
Politecnico of Milano
Milano, Italy

FIRST FOLD

SECOND FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

Northwestern University
Evanston, Illinois
Department of Chemistry
March 16, 1961

Professor Giulio Natta
Istituto Chimica Industriale
Politecnico of Milano
Milano, Italy

Dear Professor Natta:

We are presently engaged in studying the specific heats of isotactic and atactic polypropylene over the temperature range -20 to 200°C. We have samples of these materials given to us by the Hercules Powder Company.

We would like very much to investigate syndiotactic polypropylene, but have been unable to procure any, either from the Hercules Powder Company or from the Esso Research Laboratories in the United States.

If you could tell us where we might buy some of this material we would greatly appreciate it. We need 80 to 100g. for our specific heat measurements.

Sincerely yours,

Malcolm Dole

Malcolm Dole
Professor of Chemistry

MD:yw

[illegible]

October 19, 1961

Professor G. Nata
Director of Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milan, ITALY

Dear Professor Nata:

I hope by now you have recovered from your illness. I am herewith sending you the final programme of December Symposium. Also there have been some interesting developments which might give me an opportunity to meet you soon.

I hope you will be glad to know that I am intending to make a round-the-world trip starting the third week of December, 1961 to enlighten myself with the progress in polymer chemistry, during which I intend to visit about twenty-five countries. I am affiliated with W. R. Grace Central Research Laboratories, Clarksville, Maryland U.S.A.

In all these countries I plan to visit about thirty different laboratories of universities and industries where I intend to lecture and exchange present knowledge of macromolecular chemistry. I am particularly interested in visiting your research laboratories and I am looking forward to the opportunity of exchanging many view points about present day progress.

As you know, in the past ten years of polymer research, I have been interested in almost all phases of polymer chemistry for fundamental as well as applied aspects of the subject. As such, on hearing from you I will send you a list of about five specific topics which I intend to speak about and you can make a choice of the subject where your interest lies. I think such talks are always educational and at the same time the lecture tour helps to meet some of the traveling expenses incurred during my stay in that country. Just now I cannot give you the exact lecture date but as soon as possible when my programme is finally decided, I will send you an itinerary of my entire trip.

I will definitely appreciate your suggesting the dates which are convenient to you. Right now the third week of December, 1961 to the last week of January, 1962 are tentative on my schedule and I will inform you as soon as more definite arrangements materialize.

Your early reply will enable me to complete the schedule of my trip.

Thank you,

R. N. Chadha

R. N. Chadha

7100 Cedar Avenue
Takoma Park, Maryland, U.S.A.

tjw

S Y M P O S I U M

POLYMERIZATION KINETICS AND CATALYST SYSTEMS

December 4 - 5, 1961
Annual Meeting of A. I. Chem. E.
Commodore Hotel - New York

Cochairmen: Prof. H. F. Mark
Dr. R. N. Chadha

Afternoon Session
Monday, December 4, 1961

2:00 Introductory Remarks, R. N. Chadha, W. R. Grace & Co. Clarksville, Maryland

2:05 Opening Address, Prof. H. F. Mark, Brooklyn Polytechnic Institute, New York

2:15 KINETICS OF CONTINUOUS EMULSION POLYMERIZATION, D. Gershberg, American Cyanamid Co., Stamford, Conn.

2:40 GAMMA RAYS AS INITIATOR FOR SOLID STATE POLYMERIZATION OF ACRYLIC AND METHACRYLIC ACID SALTS, I. D. Rubin, T. Fedner, General Electric Co., Pittsfield, Mass.

3:05 KINETICS OF POLYMERIZATION OF ZIEGLER NATTA-TYPE CATALYSTS, Prof. G. M. Burnett, University of Aberdeen, Scotland

4:10 THE REACTIONS OF POLYMERIC RADICALS WITH ORGANOMETALLIC COMPOUNDS, E. Perry, T. Huff, Monsanto Chemical Corp., Plastics Division, Texas City, Texas

4:35 POLYMERIZATION OF DIALLYL COMPOUNDS, P. M. Kamath, U. S. Industrial Chemical Co., Cincinnati, Ohio.

Morning Session
Tuesday, December 5, 1961

10:00 Opening Address, R. N. Chadha

10:10 KINETICS OF ANIONIC HOMOGENEOUS POLYMERIZATION, Prof. M. Morton, University of Akron, Akron, Ohio

Monring Session
Tuesday, December 5, 1961

10:35 REACTION MECHANISM STUDY OF BORON TRIFLUORIDE CATALYZED POLYMERIZATION OF ISOBUTYLENE USING TRITIATED WATER AS COCATALYST, E. T. Child, W. P. Doyle, Texas Oil Co., Beacon, New York

11:00 SOME FACTORS CONCERNING COPOLYMER COMPOSITION IN TRANSITION METAL CATALYST SYSTEMS, Prof. C. G. Overberger, Polytechnic Institute of Brooklyn, New York, S. Nozakura (coauthor)

11:35 KINETICS OF STEREOREGULAR POLYMERIZATION OF DIENES, Prof. N. G. Gaylord, Gaylord Associates, Newark, New Jersey

W. R. GRACE & CO.

Research Division

WASHINGTON RESEARCH CENTER · CLARKSVILLE, MARYLAND

February 21, 1961

Professor Guilio Natta
Director of the Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

I have a proud occasion to write this letter to you. It is in connection with a symposium which I am organizing for the end of the year. As you can see from the title of symposium, there cannot be a better man in the polymer world today who can tell us more about stereospecific polymerization, especially at this occasion when A. I. Chem. E. is adding a new chapter to its history.

I have great pleasure in taking this opportunity to extend to you an invitation to present a paper or papers in the Symposium on "Polymerization Kinetics and Catalyst Systems", in the first part of December, 1961, in New York. This symposium will be a part of the annual meeting of American Institute of Chemical Engineers and is the first symposium an a national level on "High Polymers" in the history of A. I. Chem. E. I am sure you will extend your full cooperation and make it a success. The other co-chairman at the symposium is a well known figure in the polymer world, Professor H. F. Mark of Polytechnic Institute of Brooklyn, New York. We will certainly feel privileged to have scientists of your reputation participating in this opening era of A. I. Chem. E.

The emphasis in the symposium will be on polymerization kinetics with reference to newer catalysts used for radical or ionic polymerization. The symposium will cover both fundamental as well as applied aspects of the subject. Although the field of contribution is fairly broad, the contribution in the stereospecific field with organometallic initiators will be of special interest. Final manuscripts (for reproduction) and abstracts should be sent to me by August, 1961. In order to be in a position to have an advance picture of the nature of papers submitted, I would appreciate having your consent by the end of February, 1961, giving expected subject or title of your paper.

The symposium will last three hours and we expect select contributions by local and foreign scientists of reputation. Copies of the programm and printed instructions will be sent to you in March, 1961.

Accept my sincerest greetings for the new year and I will look forward to hearing from you in the near future.

Sincerely yours,

R. N. Chadha.

R. N. Chadha

RNC:pa

CHEMSTRAND RESEARCH CENTER, INC.
RESEARCH TRIANGLE PARK
P. O. BOX 731
DURHAM, N. C.

ROLF BUCHDAHL
DIRECTOR
BASIC RESEARCH

February 13, 1961

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politechio
Piazza Leonard Da Vinci 32
Milano, Italy

Dear Processor Natta:

I received your kind letter of January 5, after I had left for Europe; however, as it turned out I had to return to the United States sooner than I expected and it was therefore impossible for me to visit your laboratory. I very much regret that this was not possible; however, I might be in Europe again the latter part of this year and at that time I hope that I might avail myself of your offer to stop by.

With best regards,

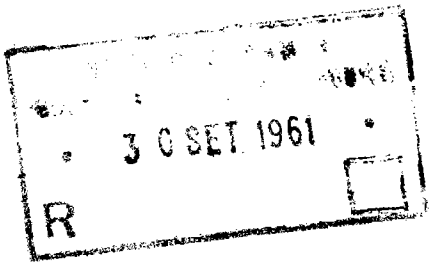
Sincerely,

Rolf Buchdahl

Rolf Buchdahl
Director of Basic Research

RB/61-39/dj

DEBELL & RICHARDSON, INC.



HAZARDVILLE
CONNECTICUT

September 27, 1961

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Milan, Italy

Dear Dr. Natta:

Would you kindly send us the number of the U.S. Patent to which you referred in your article "The Production of Graft Copolymers from Poly-α-olefin Hydroperoxides" REFERENCE 1. We found this reference in JOURNAL OF POLYMER SCIENCE, Volume 34 (1959) Issue No. 127, Page 695.

Thank you very much for your help.

1961

U.S. 2972605
Jun 1961

Yours very truly,

DeBELL & RICHARDSON, INC.

Elizabeth D. Hall
(Mrs.) Elizabeth D. Hall
Librarian

Enc:

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

The College

JOHN HARRISON LABORATORY OF CHEMISTRY

Dottor Pasquero

May 30, 1961

Dear Professor Natta:

I am sorry to answer your last letter with some delay. I wish to express my sincere thanks to you for your kind offer to work at your laboratories; I also wish to inform you that I have received a Nato post-doctoral fellowship , sponsored by the National Science Foundation, for a period of one year for research work at your laboratories. I am looking foward to meet you. Please advise me when it is most convenient for you to meet me. I expect to be in Italy at the end of June.

Sincerely yours,

Joseph Di Pietro

~~Alberto Albrecht~~

Corrispondenza

Chemistry Department
University of Pennsylvania
December 31 , 1960

Dear Prof. Natta :

I take this opportunity to wish you a belated happy new year .

Sometime ago , I wrote to you about my interest to pursue some research work in the field of stereospecific polymerization at the Polytechnic Institute of Milan . If I recall correctly , at one time lack of space at the Institute , and another time lack of financial support have prevented me from materializing this project .

It is now with renewed interest that I ask you if you have any openings for the coming year . I would welcome the opportunity to spend a year of post-doctoral research under your supervision . At the present I am teaching Organic Chemistry at the University of Pennsylvania , where Prof. C.C. Price is the chairman .

I am anxious to hear from you at your earliest convenience .

Very truly yours ,

Joseph Di Pietro

John Harrison Laboratory of Chemistry
Philadelphia 4 - Pa.

Nov.10, 1961

Dr.R.N.Chadha,
7100 Cedar Avenue,
Takoma Park, Maryland (USA)

ref.836/lv

Dear Doctor Chadha:

Thank you for your letter of October 19, 1961. I mostly regret to inform you that no possibility exists to invite you to give a lecture in Milan.
As a matter of fact the Lombard Chemical Society has already completed its lecture program for the next months.
In any case, if you have the opportunity to come to Milan, I will be very glad to meet you and to invite you to lunch or to dinner.

With my kindest regards.

G.Natta

Ann

April 14, 1961

Dr.R.N.Chadha,
C/o W.R.Grace & Co.
Research Division,
Washington Research Center,
Clarksville, Maryland (USA)

our ref.144/lv

Dear Doctor Chadha:

Thank you very much for kindly inviting me to the Symposium on "Polymerization Kinetics and Catalyst Systems" to be held in New York, December 1961.

As Dr.Ottolenghi has certainly told you, I most regret not being able to come to New York and participate in that Symposium, owing to previous engagements.

I expect that this Symposium will receive a wide attention, and I wish it a great success.

With my best thanks and kindest regards,

Very truly yours,

Giulio Natta

Jan.9, 1961

Dr.R.N.Chada,
presso Laboratori Passirana
Milano
Darex Italiana
Passirana di Rho (Milano)
(tel. 933581 /57) (rigna Maj

Dear Doctor Chada:

After writing to you on Dec.5, 1961 for welcoming you here, I have realized that the day you had scheduled to spend with us (namely, Jan. 21) is Sunday. Therefore, I regret informing you that the Institute will be necessarily closed on that day.

If you can possibly put off your departure until Monday, Jan.22, I would be very glad to meet you and show you my Institute.

In spite of this mishap, I hope to meet you on Monday.

With my kindest regards,

G.Natta

P.S. If by chance I am out of town on Monday, some co-workers of mine will be glad to meet you.

Jan.5, 1961

Dr.Rolf Buchdahl,
Director of Basic Research,
Chemstrand,
Research Center Inc.
Box 731, Durham, North Carolina
(U.S.A.)

our ref.1100/lv

Dear Doctor Buchdahl,

With regard to your letter of December 19, 1960, I am glad to inform you that you can come and visit my Institute on your visit to Milan.

I regret that, most probably, I shall not be in Milan during the week of January 22, owing to previous engagements. However a co-worker of mine will show you my laboratories. On this regard you should call my secretary up, who will arrange with you the details of your visit.

With my best regards,

G.Natta

10.10.1961

Si conferma che il Dr.Joseph Di Pietro svolge presso questo Istituto delle ricerche scientifiche per conto della NATO. Si prevede che tali ricerche dureranno fino al Luglio 1962.

Distinti saluti.

(Prof.Giulio NATTA)

June 13th, 1961

Dr.J.DiPietro
University of Pennsylvania
John Harrison Laboratory of
Chemistry
Philadelphia 4, Penna (USA)

our ref.574/eg

Dear Doctor Di Pietro,

With regard to your letter of May 30, I wish to inform you that my Institute will be closed during the whole month of August for Summer holidays. Therefore I think it is better for you to start your work at my laboratory at the beginning of September.

However if you have the opportunity of coming to Italy at the end of June, please, contact Prof.Pegoraro and Prof.Pasquon of this Institute, since I believe I shall be out of town in that period.

Sincerely yours

G.Natta

Jan.

[redacted]n. 11, 1961

Dr. Joseph Di Pietro
Chemistry Dept.
John Harrison Laboratory of
Chemistry
University of Pennsylvania
Philadelphia 4 - Pa (USA)

our ref. 18/lv

Dear Doctor Di Pietro:

With regard to your letter of Dec. 31, 1960, I inform you that now it is possible to develop a research work at the Milan Polytechnic in the field of macromolecular chemistry, concerned with the following topics:

1) I.R. spectrographic research on high polymers.
2) Structure studies by X-Rays and interference of electron rays.
3) Chemico-physical studies on the properties of macromolecules, including chromatographic fractionations with [redacted].
4) Research on the mechanical, elastic and dynamic properties of macromolecules, in particular in the field of synthetic rubbers.
5) Possibly, also scientific kinetic studies and [redacted]chemical studies with C^{14} on the mechanism of some ionic polymerizations.

At present it is not possible to develop research works concerned with some new polymerization runs, since the team developing research on this field have been moved both for safety and space reasons [redacted] a laboratory outside the Polytechnic.

I confirm you that, unfortunately, any financial support is still impossible.

I hope you will forward my best regards to Prof. Price, whose interesting papers are much appreciated.

Sincerely yours,

G. Natta

March 21, 1961

Prof. Malcolm Dole,
Northwestern University
Evanston, Illinois
(Dept. of Chemistry)

our ref. 253/lv

Dear Professor Dole,

With regard to your letter of March 16, 1961, in which you ask for 80-100 g of syndiotactic polypropylene, I am sorry to inform you that we cannot supply you the desired sample, since it has been produced only on a laboratory scale.

With kind regards,

G. Natta

Mrs. Harry L. Fisher
524 East Foothill Boulevard
Claremont, California

May 19, 1961.

Dr. G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32,
Milano, Italy.

Dear Doctor Natta,

Your friendly letter of May 16th came today and I feel that I should tell you that Harry Fisher died very suddenly at his home on March 19th.

I remember meeting you and you should know that Harry spoke often, with pleasure, of his visits with you and Mrs. Natta.

He was very busy and happy with his research in a laboratory at Pomona College here and had continued his work for chemistry for eleven years after being retired. We had been married for fifty years -- interesting and full years of companionship.

With kindest regards

Sincerely,

Mellie E. Fisher

HARRY L. FISHER
524 EAST FOOTHILL BOULEVARD
CLAREMONT, CALIFORNIA

January 25, 1961

Professor Giulio Natta
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta,

I have just seen a fine picture of you on page 92 of the January, 1961 issue of "Rubber World," and the announcement of your having been awarded a gold medal and an honor citation from the Mayor of Milan. This is indeed gratifying news and I am happy to send you my heartiest congratulations for having received these awards.

I know of your wonderful work since I have watched it carefully over the past years and I am sure that you well deserve these honors.

I think that you may remember me. I know that I well remember you especially when you very kindly invited Mr. McMillan and me to dinner at your home when we were in Milan for an International Chemical Exposition in 1950. You and your good wife were very gracious to us in your interesting home and I recall that we enjoyed the evening very much.

When you were in this country in April, 1958, I also was at the meeting of the American Chemical Society and tried without success to get in touch with you and I was out of the city the day you gave your paper. I regret that because I really wished to see you and Mrs. Natta again.

My kindest regards and best wishes to Mrs. Natta and your own goodself.

Sincerely yours,

Harry L. Fisher

Harry L. Fisher

fee.

May 30, 1961

Prof. Philip J. Elving,
Dept. of Chemistry,
The University of Michigan,
Ann Arbor, (Michigan) (USA)

Dear Professor Elving:

In reply to your kind letter of May 15, 1961, I wish to inform you that I willingly accept to write a chapter on the organometallic compounds of aluminum.

As Professor Natta already communicated to you, it is impossible for me to make myself responsible of the edition of the volume.

Please, let me know any information you think necessary, with regard to the writing down of the said chapter.

With my best thanks and regards,

Dr. Luigi Giuffrè

LG/lv

AIR MAIL

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF MICHIGAN • ANN ARBOR, MICHIGAN

May 15, 1961

Dr. Luigi Giuffre
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Giuffre:

As you know, we approached Professor Natta several weeks ago with the request that he recommend some especially qualified person to prepare a monograph on the analysis of organometallic compounds. In his reply, Dr. Natta singled you out as the chemist who had contributed most to the development of methods for the analysis of systems containing organometallic compounds.

As you perhaps know, Professor Kolthoff and I edit the Chemical Analysis Series, published by Interscience Publishers. This Series now includes a dozen published monographs including such outstanding ones as those of Sandell on colorimetric determination of metals, of Mitchell and Smith on aquametry and of Jacobs on industrial hygiene. Several other monographs are now in preparation. We believe it to be very desirable to have a comprehensive volume on the determination and analysis of organometallic compounds. There is presently a great deal of interest in this area, arising in large part from the many important contributions which Professor Natta and his associates have made in the area of organometallic compounds. This interest includes the analysis of various types of organic materials containing small amounts of metals which may have been introduced through catalytic processes.

Dr. Kolthoff and I would very much like to have you serve as the author of such a volume or as the editor of such a volume, which you could prepare in collaboration with your co-workers and others active in the area of organometallic compounds.

If you should have any questions about the nature of the monograph or any other items related to it, please feel free to call upon Dr. Kolthoff or myself. We look forward to hearing from you.

With all good wishes,

Most sincerely yours,

Philip J. Elving

Philip J. Elving
Professor of Chemistry

pje:blc

cc: I. M. Kolthoff

AIR MAIL

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF MICHIGAN • ANN ARBOR, MICHIGAN

May 8, 1961

486

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I want to thank you for your helpful letter of April 13, an earlier reply to which was impossible because of my absence from the United States for the past three weeks.

Dr. Kolthoff and I shall correspond directly with Dr. Luigi Giuffre concerning the monograph about which we wrote you.

With all good wishes,

Sincerely yours,

Philip J. Elving

Philip J. Elving
Professor of Chemistry

PJE:blc

cc: Dr. Luigi Giuffre
Dr. I. M. Kolthoff
Interscience Publishers

April 13, 1961

Professor P.J. Elving
Dept. of Chemistry,
The University of Michigan,
Ann Arbor, Michigan (USA)

our ref. 321/lv

Dear Professor Elving:

Thank-you for your kind letter of March 31. I share your belief that the volume on the analysis of organometallic compounds is very interesting.

In my Institute, we long ago established experimental techniques connected with this field.

Among my co-workers, Dr. Luigi GIUFFRE' is the chemist who most contributed with original works to the analysis of systems-containing organometallic compounds. He will be able to prepare one or more chapters on these topics.

Unfortunately, owing to previous engagements, I cannot find time enough to serve as editor for such a volume.

With kind regards,

Yours very truly,

Giulio Natta

AIR MAIL

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF MICHIGAN • ANN ARBOR, MICHIGAN

March 31, 1961

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Milan, Italy

321

Dear Professor Natta:

Professor I. M. Kolthoff of the University of Minnesota and I edit the Chemical Analysis Series, published by Interscience Publishers, which Series now includes some dozen published monographs, e.g., the well-known works of Sandell on colorimetric determination of metals, of Mitchell and Smith of DuPont on aquametry, and of Jacobs on industrial hygiene; six more monographs are now in preparation.

We are very anxious to obtain your views on whether it would not be desirable to have a comprehensive volume on the analysis of organometallic compounds. There is tremendous interest at the present time in this area, due in large measure, of course, to the very important contributions which you and your associates have made to the field of organometallic compounds. Part of this interest is in the analysis of various types of organic materials containing small amounts of metals which have been introduced through catalytic processes.

If the need for such a volume is as great as we believe it to be, would you be interested in editing the volume? If you are not yourself interested in serving as editor for such a volume, perhaps you would be willing to suggest a collaborator of yours who could serve as the editor.

If you have any questions about this letter which either Dr. Kolthoff or I could answer, please feel free to call upon us.

With all good wishes,

Most sincerely yours,

Philip J. Elving

Philip J. Elving
Professor of Chemistry

PJE:blc

cc: I. M. Kolthoff

P.S. The projected book might even include the analysis of boron-containing and silicon-containing compounds.

May. 25, 1961.

Mrs. Nellie E. Fisher,
524 East Foothill Boulevard,
Claremont, California (USA)

Dear Mrs. Fisher:

The sad news of the death of your husband comes as a shock to my wife and to me. We both extend our sympathies to you.

I remember his enthusiasm for research, his friendly behavior towards us, and I most regret the loss of him.

With kindest regards,

Sincerely yours,

G. Natta

COPIA

FREEMAN CHEMICAL CORPORATION
222 East Main Street
Port Washington, Wisconsin

September 1, 1961

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Milan, ITALY

ns.rif.725/

Dear Professor Natta:

I have followed with great interest the fine pioneering work that you have begun and carried out in the field of stereospecific polymerization.

I have been particularly interested in the elastomeric ethylene-propylene copolymers described in your papers in Rubber Age 87, 459 (1960) and in the Journal of Polymer Science 51, 429 (1961) and would like to obtain samples of such materials for evaluation, if possible. I wonder if it would be possible for you to let me know what companies in this country are most likely to be doing work in this field.

You can be sure that any information you can give us will be greatly appreciated.

Very truly yours

FREEMAN CHEMICAL CORPORATION

F.G.Singleton
Vice President for Research

FGS:kcc

CHEMPOL®
Stypol®

FREEMAN CHEMICAL CORPORATION

Subsidiary of the H. H. Robertson Company, Pittsburgh, Pennsylvania
222 EAST MAIN STREET • PORT WASHINGTON, WISCONSIN
PHONE ATLAS 4-5541 TWX 334

MANUFACTURING PLANTS AT
Saukville, Wisconsin
Ambridge, Pennsylvania

September 1, 1961

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Milan, ITALY

Dear Professor Natta:

I have followed with great interest the fine pioneering work that you have begun and carried out in the field of stereospecific polymerization.

I have been particularly interested in the elastomeric ethylene-propylene copolymers described in your papers in Rubber Age 87, 459 (1960) and in the Journal of Polymer Science 51, 429 (1961) and would like to obtain samples of such materials for evaluation, if possible. I wonder if it would be possible for you to let me know what companies in this country are most likely to be doing work in this field.

You can be sure that any information you can give us will be greatly appreciated.

Very truly yours

FREEMAN CHEMICAL CORPORATION

F. G. Singleton
Vice President for Research

FGS:kcc

Prof. Marzari
per favore provvedere
Rhemuna

GENERAL MOTORS CORPORATION
PROVING GROUND SECTION
MILFORD, MICHIGAN

Aur

November 24, 1961

Mr. Giulio Natta, Director
Institute of Industrial Chemistry
Politecnico di Milano
Milan, Italy

Dear Sir:

I read with extreme interest your article in the August, 1961 issue of "Scientific American". Much of our work at the Noise and Vibration Laboratory here at the Proving Ground concerns the applications of rubber-like materials to engine mounts, body mounts, suspension bushings, etc. In certain of these applications we need materials that have high dynamic damping while retaining low dynamic stiffness. Existing polymers such as Butyl and Polyacrylate exhibit this desirable property, however, a need exists for materials having an even higher ratio of damping to stiffness coefficients.

Your article suggests that polymerizations can be "directed" to yield certain properties of the polymer. Would you think it feasible to "design" a high damping polymer using your techniques?

Any comments you would care to return to me would be very much appreciated.

Very truly yours,

Richard A. Wilson

Richard A. Wilson
Senior Project Engineer
Noise and Vibration Laboratory

mcq

RESEARCH LABORATORIES

GENERAL MOTORS CORPORATION

April 19, 1961

24 APR. 1961
402

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

I wish to thank you for inviting me to visit your polymers laboratories on May 12, 1961. I plan to arrive in Milan on May 11, at a late hour, and I will stay at the Continental Hotel.

I plan to arrive at your laboratories about 10:30 a.m. Friday, May 12 and should there be a need to contact me prior to my visit, I suggest you write me at the Continental Hotel ("Hold for Arrival") in Milan.

I am looking forward to my visit with you and/or your associates.

Very truly yours,

P. Weiss

P. Weiss, Head
Polymers Department

PW:jmr

Parlato con Crespi

GENERAL MOTORS TECHNICAL CENTER
12 MILE AND MOUND ROADS WARREN, MICHIGAN

RESEARCH LABORATORIES

GENERAL MOTORS CORPORATION

January 30, 1961

Professor Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I am planning to visit European research laboratories and, therefore, would like to visit your institution.

My desire would be to meet you and your associates and discuss, informally, technical problems of mutual interest. I will be in Milan on Friday, May 12, 1961, and would like to suggest this as a suitable date for my proposed visit.

I am looking forward to your reply.

Very truly yours,

P. Weiss

P. Weiss, Head
Polymers Department

PW:jmr

GENERAL MOTORS TECHNICAL CENTER
12 MILE AND MOUND ROADS WARREN, MICHIGAN

INSTITUTE FOR THE STUDY OF METALS
THE UNIVERSITY OF CHICAGO
5640 ELLIS AVENUE
CHICAGO 37 · ILLINOIS

July 13, 1961

Prof. Dr. G. Natta
Istituto Chimica Industriale
Milano
Piazza Leonardo da Vinci
Italia

Very honorable Prof. Dr. Natta!

We wish to do some experiments on the electronic properties of a polymer such as crystalline isotactic polyvinylanthracene. We see that you report in Makromol. Chemie (1958) that although you did not obtain the anthracene compound, you did obtain isotactic poly-1-vinylnaphthalene. If you would find it possible to loan us a sample of this compound for preliminary studies, we would appreciate it very much. Furthermore, could you please send us information on any further work you have done on large isotactic polyvinylaromatics, and , of course, any samples which you think may be useful. Also, what are your comments on the use of the method of Kern (Nature, 187,410 (1960)) for larger aromatics? He used n-butyllithium at low temperatures in hydrocarbon solvents to obtain isotactic polystyrene, by homogeneous catalysis. Could you also please send to us a reprint of your excellent review in Makromol. Chemie 1960, pp. 94 - 131 ? Thank you very much indeed.

Most sincerely ,

Jon E. Haebig

Jon E. Haebig

(research advisor, Prof. S. A. Rice)

Ans

May 16, 1961

Dr. Harry L. Fisher,
524 East Foothill Boulevard,
Claremont, California (U.S.A.

our ref. 80/lv

Dear Doctor Fisher,

Please, excuse my long delay in answering your very kind letter of January 25, 1961.

I heartily thank you for all your kind expressions concerned with my work, my family and myself.

I do hope that another opportunity arises again in the future to meet you.

With my best personal regards,

G. Natta

July 4th, 1961

Mr. Dennis Flanagan
Editor of Scientific America
415 Madison Avenue
New York 17 - N.Y. (USA)

Dear Mr. Flanagan,

Professor Natta, at present out of town, charged me to thank you for the cheque you kindly sent to him for the article that will be published in "Scientific American".

With my kindest regards.

R. LAMMA
(Secretary)

September 8, 1961

Dr.F.G.Singleton
Vice President for Research
FREEMAN CHEMICAL CORPORATION
222 East Main Street
Port Washington , Wisconsin
(USA)

our ref.725/eg

Dear Mr.Singleton,

I have received your letter of Sept.1, 1961 and forwarded it to Montecatini, Settore Idrocarburi (Hydrocarbon Dept.), the company working in the field you are interested in. They will answer you directly and give you the information you desire.

Sincerely yours

G.Natta

HUMBLE OIL & REFINING COMPANY
BAYTOWN, TEXAS

RESEARCH AND DEVELOPMENT

J. F. MATHIS
MANAGER

il Cav Pasquon
preparerà il
campione

Baytown, 9 Maggio 1961

Polipropilene Sindiotattico

HL.759Q.61
8-4-10k1

Prof. Dr.
Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano (Italy)

Egregio Professore,

Abbiamo ricevuto la Sua pregiata del 27 Aprile 1961 con il campione di polipropilene così generosamente fornitoci e La ringraziamo moltissimo.

Noi siamo interessati nel comparare NMR spettri di polipropilene sindiotattico ed isotattico. Sfortunatamente il fatto che il campione contenente il polimero sindiotattico contiene anche una quantità notevole di materiale amorfo non ci permette di usarlo a questo scopo.

Lei ha cortesemente indicato nella Sua lettera che ci potrebbe fornire un polimero stericamente più puro (piu sindiotattico) se questo fosse necessario per i nostri studi.

Le saremmo pertanto molto grati se ci potesse spedire circa 0.1 grammi di questo materiale. Noi saremo in grado di restituire il campione intatto dopo la nostra analisi.

Alleghiamo lo spettro NMR del polimero parzialmente sindiotattico ed il campione speditoci recentemente. Lo spettro è identico a quello del polimero atattico che noi abbiamo esaminato in occasione precedente. Dato che il prodotto era poco cristallino e che conteneva poco materiale sindiotattico questo fatto non ci sorprende perchè la parte amorfa probabilmente oscura lo spettro del polimero sindiotattico.

Vogliamo ringraziarLa per la Sua gentilezza in fornirci questi campioni. Noi speriamo di pubblicare i nostri risultati su questi ed altri polimeri da noi esaminati nel prossimo futuro e riconosceremo ils Suo cortese aiuto in quella occasione.

La preghiamo di gradire i nostri migliori saluti

J. F. Mathis

per F. C. Stehling
F. C. Stehling

Egregio Prof.
Lombardi
Farbenfabriken
Leverkusen

RBW:FCS:vt

HUMBLE OIL & REFINING COMPANY
MANUFACTURING [redacted] DIVISION
BAYTOWN, TEXAS

[redacted]
RESEARCH AND DEVELOPMENT DIVISION

T. J. GREANEY, JR.
MANAGER

16-2-1961

Polipropilene Sindiotattico

HL.304Q.61
8-4-10ki

Chiarissimo Professore
Giulio Natta
Istituto di Chimica Industriale
Politecnico di Milano
Milano, Italy

Chiarissimo Prof. Natta:

Abbiamo letto con grande interesse il Suo recente lavoro sulla sintesi del polipropilene sindiotattico. Ci farebbe molto piacere di ottenere un campione di questo polimero per sottoporlo all' esame con resonanza magnetica nucleare, ma siamo stati incapaci di procurare il catalizzatore raccomandato $[Al(C_2H_5)_2F]$. Potrebbe Ella comunicarci la provenienza di questo catalizzatore? Oppure, se cio' fosse piu' conveniente, noi potremmo ottenere uno spettro se Ella cortesemente ci prestasse un piccolo quantitativo del polimero sindiotattico (0.1 grammi circa), e ritornare a Lei il campione intatto. Se Ella desiderasse, saremmo naturalmente felici di inviarLe copie dello spettro cosi ottenuto.

RingraziandoLa anticipatamente per la Sua considerazione di questa richiesta, La preghiamo di gradire i nostri migliori saluti.

T. J. Greaney, Jr.

per F. C. Stehling
F. C. Stehling

RBW:FCS:vt

Cable Address: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

September 25, 1961

Professor G. Natta
Istituto Di Chimica Industriale
Piazza Leonardo Da Vinci
Milano, Italy

Dear Professor Natta:

This is to acknowledge your two recent letters, one concerning the note by Pasquon and the other the copies of the June issue of The Journal of Polymer Science for your collaborators. I have immediately passed on Dr. Pasquon's note to Professor Mark for inclusion in The Journal of Polymer Science and it will be published as soon as possible. I have also requested that thirty copies of The Journal of Polymer Science, June issue, be sent to you for distribution to your collaborators with the compliments of Interscience Publishers.

Judging from your letters, I am sure that your operation in July must have been successful and that you are again in good health. Please accept the good wishes of Dr. Proskauer and myself on your recovery and all of us wish you continued good health for the future.

With best personal regards.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Immergut

E. H. Immergut
Editor

EHI:dh

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

August 18, 1961

EXECUTIVE OFFICES

Professor Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Professor Natta:

Enclosed please find a copy of the special issue of The Journal of Polymer Science, dedicated to you and your contributions to the field of Stereoregular Polymers. Both Dr. Proskauer and I would like you to accept our congratulations and best wishes for your further work in this important field.

With very best personal regards.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Ed Immergut

E. H. Immergut
Editor

EHI:dh

Enclosure

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

July 24, 1961

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

This is just to let you know that both my wife and I enjoyed very much the opportunity to see you in Milan.

We hope sincerely that your operation was completely successful and that you are now feeling much better and will have soon recovered completely.

With all good wishes and best personal regards to you and Rosita.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Ed Immergut

E. H. Immergut
Editor

EHI:dh

P. S. Dr. and Mrs. Proskauer also send their very best wishes.

Cable Address: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.
LEXINGTON 2-1727

EXECUTIVE OFFICES

May 9, 1961

489

Professor G. Natta
Instituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta:

I have now arranged the program for my European trip and I will be in Milano on June 15 and June 16. It would be a great pleasure if I could visit your laboratory and see you on one of these two days if you are not away from Milano at that time.

Since my wife will accompany me to Milano, we hope that we will have an opportunity also to visit Rosita and both of us look forward to this with great pleasure. We do not want of course to disturb your plans for that week and we will understand if you are not in Milano at that time.

With best personal regards

Yours sincerely,

Ed Immergut

E.H. Immergut

EHI/sfs

P.S.- I also want to let you know that all your ten papers have arrived in good order and that they will certainly be published all together in the special issue of the Journal of Polymer Science in your honor.

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

16 February 1961

Re: Special Issue - Journal of Polymer Sci.

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci
Milano 32, Italy

Dear Professor Natta:

Thank you very much for sending us the three papers entitled: "Isomorphism Phenomena in Macromolecules;" "Structure of Isotactic Polyaldehydes;" and "Kinetics of Ethylene-Propylene Copolymerization" which arrived in good order. I have passed them on to Professor Mark and as soon as he has seen them our Journal editors will make them ready for print.

Thank you very much for sending these papers to us and when you have had a chance to revise the fourth paper we would be glad to receive it from you.

Best personal regards.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

Ed Immergut

E. H. Immergut
Editor

EHI:rjb

Data coincidente con il 70° anniversario della nostra prima lavoro con plurimi interessi

Desidero informarLa che Le invio alcuni lavori in questo senso ed altri nel mese di Marzo per la pubblicazione contemporanea in un fascicolo del Polymer Science.

Vorrei però avere l'~~assenso~~ assicurazione di una rapida pubblicazione anche dei lavori che Le invierò fra breve prossimamente nel fascicolo del Europ. Polym.

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

January 11, 1961

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Milan, Italy

38

Dear Professor Natta:

Thank you very much for your two letters of December 19th and January 3rd about the special issue of the Journal of Polymer Science planned in your honor. According to your suggestion, we have decided to make the June 1961 issue the special issue on Stereoregulated Polymerization.

Professor Mark is writing a very nice introduction for this issue and will point out that the issue appears on the occasion of the 7th anniversary of the filing of the first patents on stereospecific catalysts by yourself.

We are greatly looking forward to receiving your papers and I assume from this that you must be feeling much better and I am very glad about that. With our best wishes for 1961 and your continued good health.

Yours sincerely,

INTERSCIENCE PUBLISHERS, INC.

E. H. Immergut

E. H. Immergut
Editor

EHI:rjb

Sept. 13, 1961

Dr. Vincent J. Frilette,
Socony Mobil Oil Co., Inc.
Research Dept.
Paulsboro, New Jersey (USA)

our ref. 744/lv

Dear Doctor Frilette:

I received a letter from Dr. Cipellina that informs me of your coming to Milan next October, and a letter from Professor Mark, indicating the fields of your activity:

1) Synthesis of Aromatic Hydrocarbons by Reaction of Paraffins and SO_2.

2) Kinetics of Dehydration of tert-Butanol Catalyzed by Ion Exchange Resins.

3) Catalytic Behavior of Crystalline Aluminosilicate Zeolites.

Even if I have never worked in these specific fields, I shall be very glad to meet you during your visit to Milan. I do hope to have some free time on Oct. 12.

Please, as soon as you arrive in Milan, ring me up at the Polytechnic (telephone number 2392181). If I am absent, call my secretary, Dr. Vacearezzi, who knows English, in order to arrange the exact time of our meeting.

Looking forward to meeting you in Milan, I send you my best regards.

G. Natta

Feb. 9, 1961

Dr. P. Weiss, Head
Polymers Dept.
Research Laboratories,
General Motors Co.
12 Mile and Mound Roads
Warren, Michigan (USA)

our ref. 92/lv

Dear Doctor Weiss:

With regard to your letter of January 30, 1961, I wish to inform you that I do not know whether I can be in Milan on May 12, because previous engagements I have taken for that time.

If I am not in Milan, my secretary will address you to the co-worker of mine who develops the research works you are interested in. So, please, let her know them.

If you are interested in the applications of the new stereoregular polymers discovered in this Institute, I suggest you to discuss with Dr. Crespi.

I regret I cannot assure you my presence, and I send you my best regards.

G. Natta

September 26, 1961

Dr.J.E.Haebig
Institute for the study
of Metals,
The University of Chicago
5640 Ellis Ave.
Chicago 37, Illinois (USA)

our ref.760/eg

Dear Doctor Haebig,

Excuse me for answering only now to your letter of July, 13th. As you have already been acknowledged by my secretary's letter of July 21st, I have been obliged to have a break in my activity because of my state of health.

Our works on the synthesis of vinylaromatic crystalline polymers have been interrupted since long ago and we have no disposal of samples neither of polyvinylnaphtalene nor of polyvinylanthracene.

Should you dispose of monomers, could you send us a sample and we would be very glad to polymerize them under the most suitable conditions to obtain the best yields and the best properties of polymers.

With kindest regards.

G.NATTA

July 21, 1961

Dr. J. E. Haebig,
Institute for the study of
Metals,
The University of Chicago
5640 Ellis Ave.
Chicago 37, Illinois (USA)

our ref. 683/lv

Dear Doctor Haebig:

we received your letter dated July 13, 1961, in the absence of Prof. Natta. In fact he recently under= went a surgical operation with excellent results. However he is compelled to spend a period of total rest until September. Therefore Professor Natta will answer you personally after he has come back to work.

Under separate cover we send you the reprint of Prof. Natta's paper, published in Makromol. Chemie 1960, pp. 94 - 131.

With kindest regards,

the secretary to
Prof. Natta

5.7.1961

Mr.F.C.STEHLING
Humble Oil & Refining Co.
Research and Development
Baytown - Texas

Prot.N.495/rl

Polipropilene sindiotattico

Con riferimento alla Vostra lettera del 9.5 (HL.759Q.61 - 8.4.10kl), ~~Vi~~ trasmettiamo un campione di polipropilene contenente prodotto sindiotattico cristallino ed esente da polimero isotattico.

Come potete osservare dalla spettro RX allegato, la cristallinità di questo campione è nettamente superiore a quella del campione che Vi abbiamo inviato in precedenza.

Cordiali saluti.

Prof.I.Pasquon
(in assenza del Prof.Natta)

All/

U. S. INDUSTRIAL CHEMICALS CO.

DIVISION OF NATIONAL DISTILLERS and CHEMICAL CORPORATION

RESEARCH DEPARTMENT • 1275 SECTION ROAD • CINCINNATI 37, OHIO

July 14, 1961

Professor G. Natta
Instituto di Chimica
Industriale del Politecnico
Milano, Italy

Dear Professor Natta:

You may recall that because of your gracious kindness I was able to visit Professor Corradini's laboratory at your Institute last year and was immensely benefited therefrom since I too am engaged in similar type of work. A colleague of mine, one Mr. R. S. Solvik, wishes to undertake a similar visit to your laboratory next month while he will be on a short European tour. I wonder if you will be in a position to fulfil his wish, and if so both he and I would indeed appreciate it very much. He says he can be in Milan on either the 17th or 18th of August whichever you say is convenient for you.

Chiuso tutto agosto

Although I have not had correspondence with you or Professor Corradini since I returned to this country, I, like several other polymer scientists, have been following your work with keenness through your publications. I hope you can do the needful.

Yours Sincerely,

P M Kamath

P. M. Kamath

PMK:ew

THE UNIVERSITY OF MICHIGAN
ANN ARBOR

THE HARRISON M. RANDALL LABORATORY
OF PHYSICS

March 1, 1961

Dr. G. Natta
Instituto di Chimica Industriale
del Politecuico
Milano, Italy.

Dear Dr. Natta:

I expect to be traveling in Europe this summer, and I am wondering about the possibility of visiting your laboratory.

I will be attending the International Biophysics Congress in Stockholm, July 31-August 4, and the International Congress of Biochemistry in Moscow, August 10-16. My main field of research is the study of the infrared spectra of high polymers, and, more recently, also x-ray diffraction studies of fibrous protein structure. I would be most interested in visiting your laboratory and becoming acquainted with the structural work on high polymers which is being done.

I have tentatively planned on being in Italy during the week (probably toward the end) of August 21-25. Will the laboratory be open at this time, and would it be convenient for me to visit?

With many thanks.

Sincerely yours,

S. Krimm

SK:GL

S. Krimm
Assoc. Professor of Physics.

27 aprile 1961

Mr.F.C.Stehling
Humble Oil and Refining Co.
Manufacturing Division
Baytown - Texas
(USA)

our ref.142/eg

Egregio Dottore,

Come da Suo desiderio Le accludo nella presente un campione di polipropilene che presenta cristallinità per solo polipropilene sindiotattico.

Le preciso che il prodotto è poco cristallino. Nel caso che Le interessasse un prodotto stericamente più puro, me lo dica, affinchè possa mandargliene appena ne potrò disporre.

I migliori saluti.

G.Natta

September 29, 1961

Prof.E.H.Immergut
Interscience Publishers, Inc.
250 Fifth Avenue,
New York, New York 1 (USA)

our ref.787/eg

Dear Professor Immergut,

I thank you very much for your kind letter of September 25 and for your immediate forwarding of Dr.Pasquon's note to Professor Mark.

Many thanks too for the thirty copies of the Journal of Polymer Science you have requested for me.

With my best personal regards.

G.NATTA

Sept.9, 1961

Prof. Immergut,
Editor,
Interscience Publishers Inc.
250 Fifth Avenue,
New York (USA)

Dear Professor Immergut:

I would most appreciate learning whether it is possible for you to send me, beside the requested reprints, some copies of the complete June issue of the J.of Polymer Science. In fact, some coworkers of mine, who participated in writing the papers, would like to have this issue personally.

Thanking you in advance, I send you my kindest regards.

Very truly yours,

G.Natta

Sept.6, 1961

Prof.E.H.Immergut, Editor
Interscience Publishers, In
250 Fifth Avenue,
New York 1, N.Y. (USA)

GN:lv

Dear Professor Immergut:

Thank you very-much for your kind letter of Aug.18, 1961, and for sending me the June issue of the Journal of Polymer Science. I also thank you for publishing our papers rapidly and for the kind introduction to them.

I hope an opportunity arises in the near future to meet you either in Europe or in the States.

With very best regards to you and Mrs.Immergut.

Sincerely yours,

G.Natta

May 15, 1961

Prof. E. H. Immergut,
Interscience Publishers, Inc.
250 Fifth Avenue,
New York 1, N.Y. (U.S.A.)

our ref. 489/lv

Dear Professor Immergut:

Thank you very much for your kind letter of May 9, 1961. I was glad to learn that you come to Europe and that you expect to be in Milan on June 15 and 16. I hope I shall be able to be in Milan by that time: Rosita and I would be most pleased to meet you and your wife here.

But, even if I am absent, you will certainly be able to visit my laboratory, accompanied by a co-worker of mine.

I also thank you for letting me know that the ten papers for the Journal of Polymer Science have arrived in good order.

With best personal regards,

Very sincerely yours,

G. Natta

National Bureau of Standards,
Washington 25, D. C., U. S. A.
November 4 1961

Professor Giulio Natta,
Politecnico di Milano,
Istituto di Chimica Industriale,
Milano.

Dear Professor Natta:

I am planning to write a comprehensive text-book on the subject of the physics of high polymers. This book would be based on the notes of a course of lectures that I gave on the subject as a Fulbright lecturer during 1956 - 1957 in Tokyo. I have recently applied for a Guggenheim fellowship in order to give me the opportunity to carry out this task. I am writing to say that I would very much appreciate the hospitality of your Institute for this work if I am successful in obtaining a fellowship.

The propinquity of yourself and your colleagues would be especially helpful to me, since your activities are complementary to my own specialized field, which has been in the mechanical properties of polymers. The duration of the proposed activity would be October 1962 - June 1963. Although my main objective would be the preparation of the manuscript of the textbook, I would be interested also in giving lectures relating to the mechanical properties of polymers.

I have been encouraged to embark on this task by Professor Eirich, Professor Ferry, and other rheologist friends in the U. S. A. I would be very happy if I could carry out this activity within your Institute. I am looking forward to hearing from you.

Yours sincerely,
Herbert Leaderman
Herbert Leaderman

ERNEST F. MANFRED
573 WEST 191ST STREET
NEW YORK 40, NEW YORK

June 13. 61

Dear Mr. Professor Patta,

As an admirer of your personality I shall treasure an autograph of you. You will make me happy in sending it to me.

I am
Very sincerely yours
Ernest F. Manfred

LOYOLA UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

*6525 North Sheridan Road, Chicago 26, Illinois * BRiargate 4-3000*

June 9, 1961

VIA AIR MAIL

Professor G. Natta
Instituto Di Chimica Industrialle
Del Politecnico
Piazza Leonard Da Vinci 32, Milano, Italy

Dear Professor Natta:

I am sorry to state that I shall be unable to visit with you this summer. Circumstances beyond my control have prevented me from leaving the United States. Perhaps in the future I shall have the privilege of meeting you and spending some time with you.

Cordially yours,

Raymond P. Mariella. D.Sc.

Raymond P. Mariella
Professor and Chairman
Department of Chemistry

RPM:REM

LOYOLA UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

*6525 North Sheridan Road, Chicago 26, Illinois * BRiargate 4-3000*

February 20, 1961

Professor G. Natta
Department of Chemistry
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci 32, Milano

Dear Professor Natta:

Thank you for your letter of February 10, and I am happy to hear that you are recovering from your recent operation.

I will not know definitely if I will be able to go to Europe until late in April. If events turn out that I shall go, I may visit your Institute at the end of June. Since you may not be in Milan in June, I would be happy to visit with your co-worker for a time. My present plans call for approximately six weeks stay at the Sorbonne in Paris.

With kindest personal regards.

Cordially yours,

Raymond P. Mariella

Raymond P. Mariella
Professor and Chairman
Department of Chemistry

RPM:REM

LOYOLA UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

6525 North Sheridan Road, Chicago 26, Illinois ★ BRiargate 4-3000

VIA AIR MAIL

November 7, 1960

Doctor Giulio Natta
Istituto di Chimica Industrialle
Politecnico di Milano
Milano, Italy

Dear Doctor Natta:

I am planning to apply for a senior visiting fellowship through the O.E.E.C. (Organization for European Economic Cooperation), and would very much like to spend one month in association with you in your laboratory during the summer of 1961. As I am currently Chairman of the Chicago Section of the American Chemical Society, I unfortunately could not leave the United States until the final meeting of the Section which occurs in the third week in June. I am available from the fourth week in June to early September; perhaps you would like to suggest a month which would be most convenient to you.

The O.E.E.C. will pay my way to Milan and back, and will furnish me with subsistence money. Enclosed is some information concerning my past research work. You might be interested to know that I have done considerable work on television and radio concerned with the interpretation of chemistry for the general public and specifically for children.

If such a visit is feasible, I would appreciate hearing from you as soon as possible.

Cordially yours,

Raymond P. Mariella

Raymond P. Mariella
Professor and Chairman
Department of Chemistry

RPM:REM

Enclosures 5

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

November 21, 1961

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Milano, Italy

Dear Professor Natta:

Please accept my thanks for the reprints which you sent in response to my recent request. This material will be of great help to me in connection with my present research activities.

Sincerely yours,

Leroy E. Alexander

Leroy E. Alexander
Senior Fellow

MONTECATINI

SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

ANONIMA - CAPITALE VERSATO L. 100.000.000.000

MILANO

COPIA

BREVETTI E DOCUMENTAZIONE TECNICA

BREVLEO - GC/ar

W.B. KAHN CO.
501, Lexington Ave
NEW YORK 17
(U.S.A.)

MILANO (1/34)
Via F. Turati, 18

Si prega indirizzare
Please reply to
Veuillez adresser
Adressieren Sie bitte wie folgt:
Montecatini
BREVETTI
Via Turati, 18
Milano (Italia)

Télégrammes - Telegramme - Cables: GABBROBREV - MILANO
Telex: RM - 082 - GABBRO (begin message with: BREV)

April 24, 1961

Gentlemen,

"Method for synthesizing chromium carbonyl"
U.S. 2,940,832 ex. 14/6/1960 - "U. 140"

Since U.S. patent 2,940,832 is filed under the name of our Company your letter of April 5th to Prof. Natta was transmitted to us for action.

We regret that we are unable to take advantage of your kind offer of assistance for the sale or licensing under this Patent, but it is against our Company's policy to negotiate matters pertaining to patents through agents, expecially when the name of the client is withheld.

If you wish to disclose the name of your client we may reconsider "the matter".

Very sincerely yours:

"MONTECATINI"
f.to dr. FERRANTE

Ing. [illegible]

ESTABLISHED 1904

W. B. Kahn Company

501 LEXINGTON AVENUE

New York 17

CABLE-ADDRESS
WILKAHN-NEW YORK

INTERNATIONAL
PATENT BROKERS

April 5, 1961

Messrs Natta, Ercoli & Calderazzo
18 Via F. Turati
Milano

Dear Sirs;

I believe we can sell or license for you your U. S. patent 2,940,832 "Method for synthesizing chromium hexacarbonyls" granted June 14, 1960.

If interested please write for our procedure and terms.

Very truly yours,

W. B. Kahn, President

Ann

July 20, 1961

Dr.P.M.Kamath,
U.S.Industrial Chemicans Co.
Research Dept.
1275 Section Road,
Cincinnati 37, Ohio (USA)

our ref.686/lv

Dear Doctor Kamath:

Professor Natta being absent, I answer your kind letter of July 14, 1961.

We most regret informing you that our Institute will be closed the whole month of August for Summer holidays. Therefore it will be impossible for Prof.Natta and his co-workers to meet Mr.R.S.Solvik on his visit to Milan on Aug. 17 or 18.

Sorry not being able to meet your request, Professor Natta charges me to send you his kindest regards.

Sincerely yours,

the Secretary to
Prof.Natta

Ann -

March 13, 1961

Prof. S. Krimm,
The University of Michigan,
Ann Arbor,
The Harrison M. Randalla Lab.
of Physics
(USA)

our ref. 153/lv

Dear Professor Krimm:

With regard to your letter of March 1, 1961, I regret to inform you that, during the week of August 21-25, my laboratory will be closed for summer holidays.

If you can postpone your visit at the beginning of September, you will have the possibility of visiting my Institute and of talking with some co-workers of mine.

With my kindest regards,

G. Natta

Feb. 23, 1961

Mr. T. Kresser,
210 Orange Avenue,
Orange, Texas (U.S.A.)

Dear Mr. Kresser:

Thank you very much for sending me your book "Polypropylene", which was gratefully received and read with much interest.

With my best regards,

Sincerely yours,

G. Natta

Nov.10, 1961

Mr.Herbert Leaderman,
National Bureau of Standards
Washington 25, D.C.(U.S.A.)

our ref.902/lv

Dear Mr.Leaderman,

I was glad to learn from your letter of Nov.4,1961, that you intend to come to Milan with a fellowship from October 1962 to June 1963.

My co-workers and myself will be very glad to place any available data, which may be useful for your writing the book on the physics of high polymers, at your disposal.

With my kind regards.

G.Natta

P.S. Your giving lectures relating to the mechanical properties of polymers will be certainly appreciated. We will discuss a detailed program when you are in Milan.

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

9 February 1961

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALIA

Dear Professor Natta:

I shall be pleased to receive the manuscript on the paper mentioned in your letter which will present a comparison of the crystal structures of optically active and inactive polymers. We read with great interest the announcement of your work on tritactic polymers which appeared in Chemical and Engineering News.

With kind regards, I am

Sincerely,

P. J. Flory

MELLON INSTITUTE
4400 FIFTH AVENUE
PITTSBURGH 13, PA.

6 January 1961

26

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALIA

Dear Professor Natta:

Your letter reporting the asymmetric synthesis of optically active "tritactic" polymers from monomers having no asymmetric centers has been received with great interest. This is a remarkable achievement.

On the matter of publication of a Communication describing these results, let me assure you that I shall be pleased to examine your manuscript, to offer suggestions for revision of the English translation, and to transmit the manuscript to the Editor in accordance with your instructions.

As you know, the Journal of the American Chemical Society adheres to high standards, and is especially strict in its policy on Communications to the Editor. The Journal does, however, welcome outstanding contributions of unusual significance, and is prepared to give special consideration to them. I am confident that a manuscript which adequately discloses the results which you have described briefly in your letter would be given most careful attention by the editors of the Journal of the American Chemical Society. However, a decision on acceptance for publication rests entirely with them, guided by recommendations of referees. I cannot, as a member of the Editorial Board encroach on the prerogatives of the editor in regard to acceptance of manuscripts. Nevertheless, I urge you to proceed with plans to submit a manuscript to the JACS. For your convenience I enclose a copy of instructions to authors.

It was most considerate of you to mention the concurrent report of your work which is to appear in Chimica e Industria. In general, the JACS does not accept material which is published elsewhere. However, the fact that you are prepared to reveal conditions of preparation of these polymers in the manuscript to be submitted for the JACS, this having been omitted from the concurrent paper, may circumvent these objections in view of the importance of these discoveries.

I shall look forward to receipt of your manuscript. Please be assured that your confidence will be kept through avoidance of indiscrete disclosures prior to publication.

With very best regards to you, Mrs. Natta and your family, I am

Sincerely,

P. J. Flory

AGNES SCOTT COLLEGE
DECATUR, GEORGIA

Department of Biology

20 October 1961

Dr. Giulio Natta, Director
Institute of Industrial Chemisty
Politecnico di Milano, Italy

Dear Sir:

For a number of years biologists, including my wife and me, have used lithium to produce abnormalities in growing embryos. As a result of the many exp eriments, two main theories as to the biochemical mechanism have arisen, one; that lithium inhibits cytochrome B and two: that lithium "stiffens" proteins. The reactions stated in your article in Scientific American: Precisely Constructed Polymers, might offer an explanation for the mechanism for the production of anomalies by lithium.

I would greatly appreciate your speculating for me on the possibility of lithium entering a cell, combining with compounds which are present, and becoming a catalyst for the production of polymers not normaly found in the cell and thus resulting in anomalous development. I would also like your permission to include these speculations in the discussion of a forthcoming p aper which will be an amplification of the enclosed abstract.

Very truly yours,

Fred K. Parrish

Fred K. Parrish
Department of Biology
Agnes Scott College
Decatur, Georgia, U.S.A.

FKP:bw

Telegramma lettera.

30.1.62

Prof. H. Mark
333 Jay Street
Brooklyn 1, New York

I learn you got first SPE International Award. Stop. Warmest congratulations for deserved recognition. Giulio Natta

Jan. 27, 1961

Dr. A. M. Lovelace, Chief Polymer Branch,
Nonmetallic Materials Lab.
Materials Central,
Headquarters Wright Air Development Division,
United States Air Force,
Wright- Patterson A.F.Base (Oh

our ref. 1049/lv

Dear Doctor Lovelace:

Thank you for your letter of Oct. 14, 1960.

We did not receive the reports on the synthesis and evaluation of new polymers prepared by stereospecific catalysis, and fuorine-containing condensation polymers and resins, and the copy of your last general conference. In fact, your letter had, by mistake, arrived at the Italian Air Force Headquarters, and probably your reports have not been ~~lost.~~ forwarded.

If possible, I would most appreciate receiving another copy of them.

Under separate cover, I send you a list of my and my co-workers' publications from 1955 to 1960.

Sincerely yours,

G. Natta

Oct.4, 1961

Mr.Ernest F.Manfred,
573 West 191st Street,
New York 40, New York (USA)

Dear Mr.Manfred:

Professor Natta, at present out of town, charged me to send you his photograph with his autograph.

We apologize for the delay, and send you best regards.

Sincerely yours,

the Secretariat
of Prof.Natta

Encl/

Feb.10, 1961

Prof.R.A.Mariella,
College of Arts and Sciences,
Loyola University,
6525 North Sheridan Road,
Chicago 26, Illinois (USA)

our ref.1009/lv

Dear Professor Mariella:

I apologize for the delay in answering your letter of November 7, 1960, which arrived here when I was in a hospital for a surgical operation. Only a few days ago, I started my activity in part, having been compelled to spend a long convalescence.

You wrote that you desire to spend one month in Milan during the summer of 1961.
I wish to inform you that the Institute will be closed for holidays in August, and that, if my state of health allows me, I shall go to the U.S.A. in June and in September. Therefore I think that this summer is not the best period for the long visit you mention in your letter.

Herewith enclosed, please, find a copy of the lists of papers published by my Institute up to 1960.

If you can arrange your journey to Europe differently, and if you find, among our research works, some matters of particular interest to you, I shall be glad, if you feel it possible, to meet you for a visit to my laboratories.
If, by chance, I am absent from Milan, I will charge a co-worker of mine to accompany you in your visit.

With my kindest personal regards, I am

Very truly yours,

G.Natta

Encl/

Sospeso

Nov. 29, 1960

Prof. Raymond-P. Mariella,
Dept. of Chemistry,
Loyola University,
College of Arts and Science,
6525 North Sheridan Road,
Chicago 26, Illinois (USA)

our ref. 1009/lv

Dear Professor Mariella:

Your letter of November 7 arrived here during the absence of Professor Natta who underwent an operation a few weeks ago. He is recovering nicely now, but he is still at rest out of town.

We expect he will be back to work at the beginning of January 1961; however, if you think it too late for you for applying a senior visiting fellowship, we shall try to have your letter answered by Prof. Natta as soon as feasible.

With our best regards,

Sincerely yours,

R. Manna
secretary to
Prof. Natta

Dec.1, 1961

Prof.P.J.Flory,
Mellon Institute,
4400 Fifth Avenue,
Pittsburgh 13, PA (USA)

our ref.977/lv

Dear Professor Flory:

An assitant of mine, Dr.Mario Pegoraro, who for 9 years has been working at my Institute, is now prevailingly interested in the field of the relationships between properties and structures of macromolecular substances.
I herewith enclose the list of his papers, and, under separate cover, I send you their reprints.

I would be very pleased if Dr.Pegoraro may complete his preparation by working at your Institute for a certain period (about one year).

Do you think it possible that an American fellowship may be granted to him?

I would mostly appreciate any information on this matter.

Accept my best thanks and kindest regards.

G.Natta

Encl/

Feb. 3, 1961

Prof. P. J. Flory,
Mellon-Institute
4400 Fifth Avenue
Pittsburgh 13, PA (USA)

our ref. 26/lv

Dear Professor Flory:

Thank you for your kind letter of January 6, and for your kind offer to revise the English translation of a communication to the Editor.

Probably I shall send you the manuscript of a paper on the comparison between the crystal structures of optically active polymers and of the non optically active ones, as soon as the ~~work will be~~ is completed, with the description of the methods to obtain them.
I believe that this paper will show sufficient novelties to be published, as a Communication to the Editor, in the Journal of the American Chemical Society.

In the meantime I have sent a communication to the Editor, to Makromolekulare Chemie, after a request by Professor Staudinger. Such paper deals with other optically active polymers having a di-isotactic structure, obtained by asymmetric synthesis of monomers having no optically asymmetric centres.

Thanking you again, I send you my kindest personal regards.

Sincerely yours,

G. Natta

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

September 25, 1961

Professor G. Natta, Director
Dell Istituto di Chimica
Industriale del R. Politecnico
di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

There was a Symposium on "Trends in Polymer Synthesis" at the ACS Meeting in Chicago which attracted so much interest that it was decided to publish the lectures as a Volume of the "Advances in Chemistry Series". Although the lectures presented at the Symposium gave a fair cross section through the field of polymerization techniques, it was felt that a few additional articles would be welcome.

May I take this opportunity to ask you whether you would be willing to contribute an article (15-25 pages) to this book; this article would deal with a subject of your special interest in the field of polymerization techniques. In case you should feel inclined to cooperate, which would be greatly appreciated, I shall give you all details concerning the plan of the Volume.

With warmest personal regards, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fc

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

September 19, 1961

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Many thanks for your most kind letter of September 13, 1961.

Thank you also for the interest you have taken with regard to Dr. Frilette. It is deeply appreciated.

We are all extremely happy that your operation was successful and that you are feeling well again and are once more back at the Polytechnic in your role as a leader.

amiata
impressione

I expect to send you, within a few days, a special copy of the "Natta Issue"

Mimi and I send to you and Rosita our kindest personal regards and warm best wishes.

Very sincerely yours,

H. Mark

HM:CR

H. Mark

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

September 5, 1961

Professor Giulio Natta
Direttore Dell 'Istituto di
Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

May I kindly appreach you with the following matter.

Dr. Vincent J. Frilette of the Socony Mobil Oil Company is planning a European Trip during the month of October, 1961. Dr. Frilette has expressed the desire of visiting you and your laboratories. His interests with regard to Socony-Mobil Oil have had to do with:

1) Synthesis of Aromatic Hydrocarbons by Reaction of Paraffins and SO2. (Paper to be given at International Congress, Bordeaux).

2) Kinetics of Dehydration of tert-Butanol Catalyzed by Ion Exchange Resins (Unpublished).

3) Catalytic Behavior of Crystalline Aluminosilicate Zeolites. Brief note, see J. Phys. Chem. 64, 382 (1960).

Any courtesies you may extend to Dr. Frilette will be greatly appreciated. If you desire to communicate with him, his present address is:

Dr. Vincent J. Frilette
Socony Mobil Oil Company, Inc.
Research Department
Paulsboro, New Jersey

Please accept my kindest personal regards and best wishes.
As always, I am,

Very sincerely yours,

H. Mark

H: Mark

HM:CR

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

July 17, 1961

Prof. Dott. Ing. Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Please permit me to extend to you my sincere thanks and deep appreciation for your report on polystyrene.

Your results will be incorporated in the report which will be given at the I.U.P.A.C. meeting in Montreal. A copy of this report will be mailed to you.

Sincerely yours,

Sheldon M. Atlas

Sheldon M. Atlas

SMA: gf

assist Dannoso e Marzoglio

Nov.13, 1961

Mr.Fred K.Parrish
Dept.of Biology
Agnes Scott College
Decatur, Georgia, U.S.A.

Our ref.876/lv

Dear Mr.Parrish:

Thank you for your letter of October 20, 1961. I am not a biologist; therefore I have no competence on the problems you are interested in.

However I wish to inform you that the lithium catalysts used by us act in hydrocarbon solution in the absence of water. It can be hardly supposed that they would have the same catalytic activity in an aqueous system.

I can state that lithium, owing to its small atomic volume, has a catalytic behavior which differs very much from that of the other alkaline metals.

The catalytic activity of the catalysts from lithium is due to the easiness with which it is coordinated to compounds containing atoms with free electron pairs, such as oxygen or nitrogen atoms forming the organic compounds. This is why I am not surprised at observing that lithium shows an unusual behavior, which differes from that of other alkaline metals. The great ability of lithium to be complexed with oxygen or nitrogenous organic substances is probably reduced in aqueous solution. In fact, under these conditions, a competition exists between water and the other molecules able to be coordinated with lithium already complexed with molecules

It must be also borne in mind that the lithium ion may bridge between different molecules, in analogy with the hydrogen bonds; therefore, even without appealing to a real polymerization phenomenon, it is possible to suppose that the saturation of "lithium bonds" between the molecules in the cell is sufficient to produce an anomalous poly=

With my kindest regards,

G.Natta

Nov.13, 1961

Mr.Fred K.Parrish
Dept.of Biology
Agnes Scott College
Decatur, Georgia, U.S.A.

our ref.876/lv

Dear Mr.Parrish:

Thank you for your letter of October 20, 1961. I am not a biologist; therefore I have no competence in the problems you are interested in.

However I wish to inform you that the lithium catalysts used by us act in hydrocarbon solution in the absence of water. It can be hardly supposed that they would maintain the same catalytic activity in an aqueous system.

I can state that lithium, owing to its small atomic diameter, has a catalytic behavior which differs very much from that of the other alkaline metals.

The catalytic activity of the catalysts from lithium is due to the easiness with which it is coordinated to compounds containing atoms with free electron pairs, such as oxygen or nitrogen atoms forming the organic compounds. This is why I am not surprised at observing that lithium shows an especial behavior, which differs from that of other alkaline metals. The great ability of lithium to be complexed with oxygenated or nitrogenous organic substances is probably reduced in aqueous solution. In fact, under these conditions, a competition exists between water and the other molecules able to be coordinated with lithium already complexed with molecules of water.

It must be also borne in mind that the lithium ion may form bridges between different molecules, in analogy with the hydrogen ions: therefore, even without appealing to a real ordinated polymerization phenomenon, it is possible to suppose that the dnsaturation of "lithium bonds" between the molecules present in the cell is sufficient to produce an anomalous polymer.

With my kindest regards,

G.Natta

March 17, 1961

Dear Professor Natta,

Please permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fc
Encl.

Impressive

Ren
Plyt.

January 25, 1961

Dear Professor Natta,

If one develops new polymers, one usually wants to know at an early stage (before too much money and efforts have been invested) what the prospects are for the application of the new material in the field of larger volume applications. A particularly interesting problem is usually the concern as to whether or not the new polymer is a useful fiber former. In order to arrive at a reliable estimate it is necessary to carry out spinning experiments with very small quantities (somewhere between 20 and 200 gr.).

In order to establish such important factors as extrudibility, orientability, rate of crystallization on spinning and drawing, stress-strain characteristics and cross-section formation with small quantities, one needs a "microspinometer", an instrument which has been pioneered several years ago by Dr. Erbring in Germany.

When I discussed this matter with Dr. Eugene Scharz a few years ago, he told me that he had been working on such an instrument for several years and a few days ago he wrote to me that he has now succeeded in constructing such an instrument.

Since I think you might be interested in the existence and availability of such a micro spinning machine for some of the many polymers which you are developing in your organization, I am sending you a copy of his letter. If you should be interested, please get in touch with him directly.

With kindest regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fc
encl.

Crespi
Lanchr

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

December 6, 1960

Professor G. Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I would like to let you know that Professor Gerald Oster intends to visit Europe, and particularly Italy, during the second half of June of 1961. He would be very pleased if he could visit your laboratory, and make his personal acquaintance with you and your associates.

Professor Oster and his wife, Gisela, have been working for several years on the interaction of radiation with macromolecules and have obtained very significant and unexpected results in the field of photopolymerization, photodegradation, dye fading, and polymer semiconductivity.

I have heard several lectures of both during the last year, all of which contained a wealth of new observations, and were very outstanding and stimulating; the Osters can speak fluently in English, German, and French. Knowing the keen interest of you and your associates in anything which is new and progressive in the polymer field, I think that a lecture (or even two) of Professor Oster would provide much thought provoking material.

In the event that you are so kind as to permit Professor Oster to visit your Institute, and particularly if you are interested in a lecture, please correspond with him directly. His address is:

Professor Gerald Oster
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York

With warmest personal regards, and very best wishes for a most joyous holiday season, I am

Very sincerely yours,

H. Mark

H. Mark

HM:gf

Lasciare a Sotto se già ottenuti le [illegible] e [illegible] in [illegible] [illegible]

Perché no Giulio [illegible] [illegible]!

Jan.31, 1961

Prof;H.Mark,
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn 1, New York (USA)

Dear Professor Mark:

I learned with great pleasure from Mr.Sheldon Atlas that you have been named the recipient of the first SPE International Award in Plastics Science and Engineering.

Your outstanding activity in the macromolecular field well deserved such a honor.

Rosita joins me in sending you warmest congratulations and kindest regards.

Giulio Natta

GN/lv

Oct.11, 1961

Prof.H.F.Mark, Derector
Polymer Research-Institute,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref.791/lv

Dear Professor Mark,

Thank you for your letter of Sept.25,1961 concerning your request of an article for the Volume:"Advan= ces in Chemistry Series".

I would like to learn the deadline for sending you the manuscript and whether it is possible to publish a detailed paper on a specific field, or else on a general topic.

In the meantime, I send you kindest regards.

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN 1, NEW YORK

TRIANGLE 5-6412

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

April 19, 1961

Dear Professor Natta,

Please kindly permit me to send you the attached material, which I hope will prove of interest and use to you.

With kindest regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:rs
Encl.

Ringraziare

COPIA

ricevuta 13/2/1961

N. 107

POLYTECNIC INSTITUTE OF BROOKLYN
333 Jay Street
Brooklyn 1, New York

Polymer Research Institute
H.F.Mark, Director

February 7, 1961

Professor Giulio Natta
Direttore dell'Istituto di Chimica Industriale
del R.Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Please permit me to send you, under separate cover, the Volume VII of the Transactions of the Society of Plastics Engineers which costs $ 8.00. It contains such a tremendous wealth of important and urgent information in the entire field of plastics synthesis and application, that I bought it for you without asking especially for your approval.

If you are interested in this Volume, please kindly transfer the amount of $ 9.00 to my account NO. 21945 at the

Banco Nazionale di Lavoro
Milano
Piazza San Fedele 1

at your convenience.

With kindest regards and very best wishes, I am

Very sincerely yours

H.Mark

HM:gf

JOURNAL OF POLYMER SCIENCE

Published by INTERSCIENCE PUBLISHERS, INC. • 250 FIFTH AVENUE • NEW YORK 1, N. Y.

Editorial Office:
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York

February 1, 1961

Aen
Mark

Professor G. Natta
Via Mario Pagano 54
Milano, Italy

Dear Colleague:

In honor of Professor Staudinger's 85th birthday there will be a special issue of "Die Makromolekulare Chemie" the journal of which Professor Staudinger has been the Editor since its founding. Also, we would like to express our esteem for Professor Staudinger and we would like to do this by publishing in the Journal of Polymer Science a letter of congratulations signed by the members of the Editorial and Advisory Board of the Journal. We are therefore enclosing a sheet of paper on which we would like you to sign your name, preferably with black or dark blue ink to facilitate its reproduction in print. A return envelope is enclosed for your convenience.

We appreciate very much your cooperation and are sure that Professor Staudinger will be pleased to receive your birthday greetings in this form.

With best regards.

Yours sincerely,

H. Mark

H. Mark
Editor

verified
6/2/61

EUGENE W. K. SCHWARZ INC.

R. & D. CONSULTANTS TO THE CHEMICAL - TEXTILE - AND MAN-MADE FIBER INDUSTRIES.

MARKET AND ECONOMIC STUDIES

OFFICE & LABORATORY
101 WEST 31ST STREET
NEW YORK 1, N. Y.
LA 4-2979; 2959

January 17, 1961

Dr. H. Mark, Director
Polymer Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York

Dear Professor Mark:

Referring to our previous conversations about testing of small amounts of polymers for suitability as fibers, I am pleased to advise you that we are building a laboratory melt spinning unit which will allow us to spin as little as 20g of material; but also up to kg quantities.

We expect to have this unit ready by the end of January or the beginning of February 1961. This versatile $20,000 unit will round out our spinning facilities developed in the last fifteen years and so we will be able to spin fibers according to all systems: wet, solution, melt or semi-melt spinning. We will be able to assist companies in carrying out part or all of any project in connection with the development of synthetic fibers, including evaluation of new polymers or co-polymers, addition of antistatic, fungicidal or stabilizing agents, pigments, etc.

Perhaps you will recall the patented process of producing fire resistant rayon developed in my laboratory a number of years ago. I am sure that you also recall our experience in spin dyeing and in developing and testing color pigments for spin dyeing.

We will be ready to serve you or anyone who has problems in the above mentioned fields.

With kindest personal regards.

Cordially,

E. Schwarz

EUGENE W.K. SCHWARZ

EWKS:ca

27th September 1961

Prof.H.Mark
Polytechnic Institute of
Brooklyn
333 Jay Street
Brooklyn 1, New York (USA)

our ref.769/eg

My dear Professor Mark,

Thank you very much for your kind letter of September 19, 1961 and for the words you addressed to me.

The special copy of the "June Issue" has just arrived and I thank you for it as well.

Rosita joins me in sending you and Mimi our kindest regards.

G.NATTA

Sept. 13, 1961

Prof. H. Mark,
Polymer Research Institute,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref. 731/lv

Dear Professor Mark:

I have received your letter of Sept. 5, informing me of the visit of Dr. Frilette of Socony Mobil Oil Co.

I enclose a copy of the letter I sent to Dr. Frilette whom, owing to your presentation, I will be glad to meet in Milan.

Thank-you very much for the kind interest you took in the June issue of the J. of Polymer Science, and for the kind introduction to this issue.

I am glad to inform you that I was operated on in Paris at the beginning of July: the operation was quite successful. Only now, after two months of convalescence, I have started working again at the Polytechnic.

Rosita joins me in sending you and Mimi, kindest regards.

G. Natta

Encl/

July 11, 1961

Dr. Sheldon M. Atlas
Polymer Research Institute,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref. 487/lv

Dear Doctor Atlas,

With regard to your letter of May 10, 1961, I send you the results of the osmotic and viscosimetric measurements obtained up to now, with the cooperation of Prof. Moraglio of this Institute.

I hope that these results can be still quoted in your report for the I.U.P.A.C. Commission.

I think it possible to send you further results in the future.

With my kindest regards,

G. Natta

Encl/

May 9, 1961

Prof.H.Mark, Director
Polymer Research Institute,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

Dear Professor Mark:

Thank you very much for the interesting material you kindly sent to me on April 19, 1961.

I most appreciate your sending me information on the new developments of research.

Rosita joins me in sending you and Mimi kindest regards.

Very truly yours,

G.Natta

"MONTECATINI"
SOCIETÀ GENERALE PER L'INDUSTRIA MINERARIA E CHIMICA

AMMINISTRATORE DELEGATO

G/sb

Milano, 23 gennaio 1961

Caro Natta,

ho avuto la Sua del 19 gennaio e la copia di lettera che Ella ha ricevuto dal Quartermaster Research & Engineering Command.

Io penso che Ella potrebbe dire di avere passato la lettera alla Polymer, che si metterà in diretto rapporto con il predetto Quartermaster.

Cordiali saluti.

preferisce lettera

Preg. mo Signor
Prof. GIULIO NATTA
MILANO.

AIR MAIL

HEADQUARTERS
QUARTERMASTER RESEARCH & ENGINEERING COMMAND, U S ARMY
QUARTERMASTER RESEARCH & ENGINEERING CENTER
NATICK, MASSACHUSETTS

QMREL-TE

22 December 1960

Professor G. Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

The Quartermaster Corps of the US Army is interested in obtaining and testing new high strength fibers, yarns and fabrics as they become available. Specifically, I am interested in the stress-strain properties of multifilament yarns and the changes in these properties as the rate of extension is increased.

Perhaps the most interesting new fiber is that prepared from isotactic polypropylene. The continuous filament yarns that I have tested possess tenacities of 6-7 grams per denier at low rates of elongation with elongations of 28-35%. At these slow speeds the resultant work to rupture is very high (125 joules/gram) but at extremely high rates of elongation, the work to rupture is decreased considerably. Are these yarns representative of isotactic polypropylene or are even stronger fibers available which I could test?

Are any fibers available which have been prepared from other isotactic polymers such as polystyrene, polybutene, etc.?

I would also be interested in knowing whether any Italian laboratories are studying the viscoelastic properties of high strength fibers.

Very truly yours,

Roy C. Laible

ROY C. LAIBLE
Chemist
Textile Engineering Laboratory Branch
Textile, Clothing & Footwear Division

[illegible]

AIR MAIL

RAYTHEON

RAYTHEON COMPANY

EQUIPMENT DIVISION

Surface Radar and Navigation Operations

ADDRESS REPLY TO

Box 172
Wayland, Mass.

ELmwood 8-2721
Extension 2681

August 2, 1961

Prof. G. Natta
Director,
Institute of Industrial Chemistry
Politechico di Milano,
Milan, Italy.

Dear Prof. Natta:

I read your fascinating article in Scientific American of August 1961 with considerable interest. I believe that a liquid with the optical property you describe can be applied to some work I am now doing. However, I need some additional information to be sure. I hope you will be able to help me.

I am particularly interested in determining whether the polarization effect is pressure sensitive. A list of references, preferably in English describing the effect in detail would be most useful in this regard. If possible, I would like to obtain a small sample of a polarizing organic liquid to experiment with myself. Finally, I would like to know how costly it would be to produce pints of the material.

Your attention will be greatly appreciated.

Very truly yours,

H. L. Groginsky

Dr. Herbert L. Groginsky
Advanced Development Laboratory
RAYTHEON COMPANY

bjm

REEVES Brothers, Inc.

1071 Avenue of the Americas (at 41st Street) • New York 18, New York

PEnnsylvania 6-8600 • Teletype: New York 1-111

November 3, 1961

Professor Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, ITALY

Dear Professor Natta:

The fact that the first International Gold Medal of the Synthetic Rubber Industry has been awarded to you is most gratifying for all of us who consider your work as a grand breakthrough in our present modern polymer chemistry and technology.

This gives me also a good opportunity to present you with my personal regards and best wishes.

Sincerely,

REEVES BROTHERS, INC.

Victor L. Erlich

Victor L. Erlich
Vice President
Director of Research

VLE:pam

SERVING MODERN HEALTH NEEDS - WORLD-WIDE

RICHARDSON-MERRELL INC.

FORMERLY VICK CHEMICAL COMPANY

122 EAST 42ND STREET NEW YORK 17, NEW YORK

CABLE ADDRESS VICKS NEW YORK

R. T. STORMONT, PH.D., M.D.
VICE PRESIDENT

January 25, 1961

AIR MAIL

Dr. Giulio Natta
Instituto di Chimica Industriale del
Politecnico
Milan
Italy

Dear Doctor Natta:

We are quite interested in the method which you have developed of producing optically active polymers.

My colleague, Dr. Weisiger, and I plan to be in Milan next month and would greatly appreciate an opportunity to visit with you sometime at your convenience either on Friday, February 17th, or Monday, February 20th. If possible, we would appreciate an early morning or late afternoon appointment.

Very truly yours,

R. T. Stormont

Robert T. Stormont

RTS:me

24 aprile 1961

Prof.H.Mark,
Palace Hotel,
Piazza della Repubblica 20,
Milano

ns.rif.401/lv

Caro Professor Mark:

Dato che ci è stato impossibile effettuare, a mezzo conto corrente, il versamento di $ 9, relativo al costo del libro: "Technical Papers, Vol.7th", colgo l'occasione della Sua venuta a Milano per inviarLe detta somma tradotta in Lire Italiane.

Voglia gradire i miei più cordiali saluti.

G.Natta

All/

April 20, 1961

Prof. H. Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

Dear Professor Mark,

I wish to thank you very much for kindly sending me on March 17, 1961, the material which I appreciated very much.

With my kindest regards to you and Mimi,

Very truly yours,

G. Natta

14.3.1961

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brookl
333 Jay Street
BROOKLYN 1 - N.Y. + U.S.A.

GN/rl

Caro Professore,

facendo seguito alla mia lettera del 9.3.1961 (Prot.N.107), La prego di confermarmi il numero preciso del suo conto presso la Banca Nazionale del Lavoro di Via S.Fedele 1, Milano, perchè presso tale Banca non risulta affatto un conto N.21945, nè altro conto intestato a Lei o al Polytechnic Institute di Brooklyn, e pertanto non posso accreditare $ 9.00 per il VII Volume della Transactions della SPE.

In attesa di Sue cortesi notize, La prego di gradire cordiali saluti.

Giulio Natta

inviato
confermando
2 ff del conto
, Dr Rossi

9.3.1961

Prot.N.1 0 7 /rl

Prof.H.Mark, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
BROOKLYN 1 - N.Y. - U.S.A.

Caro Professore,

La ringrazio molto per l'invio del VII Volume delle Transactions of the Society of Plastics Engineers, che effettivamente contiene molti articoli interessanti.
Ho provveduto a farLe accreditare l'importo di $ 9.00 sul suo conto corrente presso la Banca Nazionale del Lavoro di Milano.

Molti cordiali saluti.

G.Natta

June 8, 1961

Prof. Gerald Oster,
Dept. of Chemistry
Polytechnic Inst. of Brooklyn,
333 Jay street,
Brooklyn 1, New York (USA)

our ref. 597/lv

Dear Professor Oster:

Thank you very-much-for the paper: "Photochemical-Production of Semiconduction high Polymers", you enclosed with your letter of June 5, 1961. I read it with much interest.

I was sorry to hear that your duties in the U.S. do not allow you to come to Italy during the latter half of June. I shall be glad to meet you next Spring.

With kind regards,

Sincerely yours,

G. Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

DEPARTMENT OF CHEMISTRY

June 5, 1961

Professor G. Natta
Istituto di Chimica Industriale
Piazza Leonardo da Vinci, 32
Milano, ITALY

597

Dear Professor Natta:

I regret very much that I will not be able to come to Italy as previously planned for the latter half of June. The pressure of preparations for the meeting in Canada as well as work on my book on photopolymerization is too great.

Enclosed please find a copy of a letter to appear in Nature regarding our latest work on high polymer semi-conductors.

I hope that I can take advantage of your kind offer to visit you at some later date, possibly next Spring. In any case, I will write to you well in advance.

Please forgive my writing you so late about my change in plans.

With kindest regards,

Sincerely yours,

Gerald Oster
Professor of Polymer Chemistry

GO:DL

Feb.9, 1961

Prof.G.Oster,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref.1056/lv

cc. Prof.H.F.Mark, Director
Polymer Research Institute,
Polytechnic Institute of
Brooklyn,

Dear Professor Oster:

I have learnt from Prof.Mark's letter of Dec.6, 1960, that you intend to come to Europe during the second half of June 1961.

On the other hand, Dr.Morandi, of Montecatini told me that he had already invited you to give one or two lectures in Milan.

We shall be very glad to attend your lectures and to make your personal acquaintance.

With my kindest regards,

G.Natta

SCIENTIFIC AMERICAN 415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

Ar.

July 18, 1961

Dear Dr. Natta:

I enclose two sets of the pages on which your article appears in our August issue. By surface mail we will send you four complete copies of the issue. If you would like still more copies or reprints, I daresay you will be in touch with us through Emilio Serpieri.

It has been, as always, a pleasure to work with you on the article. We wish yougood fortune in your own work, and we hope that some day there will be an occasion for you to write another article for us.

Cordially,

Dennis Flanagan

Dennis Flanagan
Editor

DF:ap

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Tel. Serpieri per estratti - richiesti 100 - estratti copie -

SCIENTIFIC AMERICAN 415 MADISON AVENUE, NEW YORK 17, N. Y. MURRAY HILL 8-3900

Established 1845

August 3, 1961

Dear Dr. Natta:

We enclose the materials you sent us to illustrate your article.

With thanks,

Sincerely,

Patra McElwee

Patra McElwee
Art Department

Dr. Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

enc

Feb.3, 1961

Mr.Rey C.Laible, Chemist
Textile Eng.Lab.Branch,
Textile, Clothing & Footwear
Division,
Headquarters,
Quartermaster Research & Eng
Command, US Army
Natick, Massachusetts (USA)

our ref.37/lv

Dear Mr.Laible,

With regard to your letter of Dec.22, 1960, I wish to inform you that I have forwarded your letter to Dr.Larcher, Director of the Polymer Co. (a consociate of Montecatini), who will answer you directly.

Sincerely yours,

G.Natta

19.1.1961

Egr.Ing.Piero Giustiniani
Amministratore Delegato
Società Montecatini
S e de

c.p.c. Ing.B.Orsoni - SGPS
Ing.S.Larcher + Polymer

Caro Ingegnere,

ho ricevuto una lettera dal Quartermaster Research & Engineering Command di cui Lei invio copia. Le sarei grato se potesse dirmi cosa preferisce che io risponda, a meno che non voglia far rispondere direttamente dalla Montecatini.

Molti cordiali saluti,

Giulio Natta

All/ 37

Nov.6, 1961

Mr.Victor L.Erlich,
Vice President, Director of
Research,
C/o Reeves Brothers, Inc.
1071 Ave.of thenAmericas
(at 41st Street)
New York 18, N.Y. (USA)

our ref.896/lv

Dear Mr.Erlich:

Thank you very much for the kind words you expressed to me in your letter of Nov.3, 1961.

I seize this opportunity to reciprocate best wishes and kind regards.

Sincerely yours,

G.Natta

Feb.9, 1961

Dr.Robert-T.Stormont,
Vice President,
Richardson-Merrell Inc.
122 East 42nd Street,
New York 17, N.Y.

our ref.79/lv

Dear Doctor Stormont:

With regard to your letter of January 25, 1961, I wish to inform you that I do not know whether I can be in Milan on February 17, 1961, or Feb.20.

Since you are interested in the method for producing optically active polymers, I suggest you, if I am not in Milan, to come to my Institute and to discuss with Dr.Farina, a co-worker of mine.

I regret I cannot assure you my presence, and I send you my best regards.

G.Natta

Free
Rubber Age

September 13, 1961

To the Editor
Palmerton Publishing Co.Inc.
Magazine & Book publishers
101 West 31st Street
New York 1, N.Y. (USA)

Dear Sir,

Thank you very much for kindly sending me the copies of the July, 1961 issue of Rubber Age, and for your nice presentation to my article.

Best thanks and kindest regards.

G.NATTA

E. SEGRÈ
36 CREST ROAD
LAFAYETTE, CALIFORNIA

29 dicembre 1960

10

Caro Natta,

Ho veduto il riassunto delle ricerche del suo istituto nell Supplemento al Nuovo Cimento.

Mi interesserebbe avere possibilmente un articolo un po' più generale e anche un po' di informazione storica. In particolare anche la relazione tra i suoi lavori e quelli di Staudinger.

Le mie conoscenze di chimica sono in tutt'altro campo e mentre conosco discretamente la chimica inorganica e bene quella radioattiva, sono del tutto ignorante sulle macromolecole.

Scusi il disturbo e sperando di avere una pronta risposta, coi migliori auguri per il 1961 la saluto cordialmente

tuo

Emilio Segrè.

Palmerton Publishing Co., Inc.
101 WEST 31st STREET
NEW YORK 1, N. Y.

NEW YORK 1, N.Y.
JUL 18
8 30 PM
1961

Dr. Giulio Natta
Director
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

NON È NOTO AL POLITECNICO

Politecnico

AIR LETTER • AÉROGRAMME • PAR AVION

FIRST FOLD

SECOND FOLD

DO NOT USE TAPE

PALMERTON PUBLISHING COMPANY, INC.
Magazine and Book Publishers
101 WEST 31st STREET
NEW YORK 1, N. Y.

RUBBER AGE • RUBBER RED BOOK • ADHESIVES AGE

July 18, 1961

Dr. Giulio Natta
Director
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Dr. Natta:

We are forwarding, under separate cover, several copies of the July, 1961, issue of RUBBER AGE. Your attention is directed to page 637 on which appears the article on the elastomeric properties of unsaturated copolymers. It was a privilege to publish this fine article, and we hope that you and your co-authors will be pleased with the presentation.

We look forward to the opportunity of publishing another of your articles in the near future.

Very truly yours,
RUBBER AGE

B. J. Kotsher

Editor

BJKotsher:pg
USC

DIE MAKROMOLEKULARE CHEMIE

Schriftleitung: Prof. Dr. phil. H. Staudinger
Dr.-Ing. e. h., Dr. rer. nat. h. c., Dr. (E) h. c., Dr. chem. h. c., Dr. m. medic. h. c.,
Freiburg i. Br., Lugostraße 14 · Telefon 28874

Unter Mitwirkung von
H. Barzer, Stuttgart · H. Broderodt, Stuttgart · I. W. Breitenbach, Wien · S. Claesson, Uppsala · A. Dobry, Paris · J. T. Edsall, Boston · H. von Euler, Stockholm · A. Frey-Wyßling, Zürich · F. A. Henglein, Karlsruhe · H. Hopff, Zürich · E. Husemann, Freiburg i. Br. · B. Jirgensons, Texas · W. Kern, Mainz · O. Kratky, Graz · G. Natta, Mailand · H. Pelzmann, Zürich · F. Patat, München · A. Peterlin, Ljubljana · Ch. Sadron, Straßburg · G. Schramm, Tübingen · G. V. Schulz, Mainz · R. Signer, Bern · G. J. Smets, Louvain · H. A. Stuart, Mainz · E. Weissenmeier-Lotz, München · H. Zahn, Aachen · K. Ziegler, Mülheim/Ruhr

Herrn
Professor Dr. G. Natta
Direktor des Istituto di
Chimica Industriale del
Politechico
Piazza Leonardo da Vinci
M i l a n o /Italien

Freiburg i. Br., den 2. Januar 1961

7.

Lieber Herr Kollege,

die Mitteilung, die Sie mir in Ihrem Brief vom 29. Dez. 1960 machen, ist von grösster Bedeutung, denn so ist nach Ihrem Verfahren eine vollkommene asymmetrische Synthese gelungen, ein Fortschritt, der auch für das Verständnis von asymmetrischen Naturstoffen von grossem Interesse ist.

Sicher wollen Sie dieses Ergebnis rasch publizieren, und es würde mich freuen, wenn Sie eine kurze vorläufige Mitteilung von 2 - 3 Seiten der Zeitschrift 'Die Makromolekulare Chemie' zur Verfügung stellen würden. Ich würde für raschesten Abdruck und Veröffentlichung im nächsten Heft sorgen. Natürlich würde ich mich ganz besonders freuen, wenn Sie diese wichtige Arbeit insgesamt der 'Makromolekularen Chemie' einsenden könnten. Einige Sonderdrucke von dieser Arbeit hätte ich dann gerne, um sie weiterzuleiten.

Nach diesen schönen Ergebnissen im Jahr 1960 wünsche ich Ihnen auch ein erfolgreiches Jahr 1961!
Ich verbleibe mit herzlichen Wünschen für das Neue Jahr für Sie und Ihre Gattin, auch im Namen meiner Frau,

Ihr

H. Staudinger

DR. ALFRED HÜTHIG VERLAG GMBH · HEIDELBERG · WILCKENSSTRASSE 3 · TELEFON SAMMEL-NUMMER 27745/46

COPIA

SHANNON LUMINOUS MATERIALS CO
7356 Santa Monica Blvd.
Hollywood 46, California

September 28, 1961

Mr. G. Natta
Istituto De Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32
Milano, ITALY

4 ott. 1961
R 807

Dear Mr.Natta:

Thank you for your letter of September 9th. We would like very much to evaluate polypropylene films of various thicknesses, perhaps .005, .010; and .015 inch. Since we wish to prepare filter cells, two small pieces of each thickness several inches square would be helpful.

Very truly yours

SHANNON LUMINOUS MATERIALS CO.

James R.Alburger

JRA/asa

Shannon Luminous Materials Co.

Manufacturing Chemists *Development Engineering*

HOLLYWOOD 7-5509

7356 SANTA MONICA BLVD.
HOLLYWOOD 46, CALIFORNIA

HOLLYWOOD 7-1443

21 August 1961

Dr. Guilio Natta, Director
Institute of Industrial Chemistry
Politecnico di Milano
Milan, Italy

Dear Dr. Natta:

I have read with interest your article in Scientific American Magazine concerning controlled molecular orientation in polymers. From one of the illustrations it appears that transparent rigid sheets of polypropylene might be feasible.

Can you suggest where we might obtain samples of a clear transparent poly propylene or similar material? We are particularly interested in optical transmission in the range of 2000 to 4000 A.U. Preferred thickness of the material is on the order of .020 inch or more.

We will appreciate any suggestions you can offer on this.

Very truly yours,

SHANNON LUMINOUS MATERIALS CO.

JRA:th

for James R. Alburger

A. = 10^{-7} mm 0.25 - 0.5 μ

0.015 14 d

wrapping shrinkage (Cowan)

12 gennaio 1961

Prof.E.Segré,
36 Crest Road
Lafayette, California
(USA)

Rif. 10

Caro Segré,

La ringrazio molto per la Sua gentile lettera del 29.12.60.

Le invio ~~a parte~~ l'elenco dei miei lavori e di quelli della mia scuola sulla polimerizzazione stereospecifica e sui polimeri stereoordinati. Si tratta di un campo che è stato aperto e approfondito in questo Istituto da 6 anni a questa parte e che presenta un notevole interesse sia pratico che scientifico.

I processi di polimerizzazione stereospecifica consentono di sintetizzare dei polimeri in cui le unità monomeriche si susseguono ordinatamente dando così luogo a prodotti cristallini.

In passato gli unici polimeri stereoregolari conosciuti erano quelli naturali, (cellulosa, gomma naturale, ecc.) mentre quelli sintetici risultavano amorfi a causa dell'assenza di regolarità sterica delle singole macromolecole. Prima dei nostri lavori si potevano ottenere polimeri cristallini sintetici solo nel caso che si partisse da monomeri simmetrici (come ad esempio l'etilene).

Il maggior interesse scientifico suscitato in un primo tempo da questa nuova sintesi, ~~ma~~ appunto connesso al fatto che essa permette di preparare nuove classi di polimeri sintetici alcuni completamente nuovi ed altri aventi una struttura sterica regolare simile a quella di alcuni prodotti naturali.

La configurazione peculiare dei polimeri stereoordinati e la loro cristallinità sono tali da conferire a questi prodotti delle caratteristiche meccaniche e chimico-fisiche eccezionali (elevata resistenza meccanica ed elevata temperatura di fusione). Per queste ragioni i polimeri stereoordinati hanno anche suscitato un enorme interesse pratico.

./.

I prodotti più interessanti che vengono o che saranno prodotti a breve scadenza su scala industriale (in USA, Germania, Francia, Giappone, Olanda, Inghilterra, Austria e Italia) sono il polipropilene isotattico ed alcuni elastomeri sintetici. Tutti gli impianti, ad eccezione di qualcuno negli USA (ove la situazione brevettuale non è ancora chiarita a causa di complicazioni derivanti dalla legge americana sfavorevole agli stranieri) sfruttano licenze di brevetti aventi priorità italiana. Il polipropilene isotattico trova impiego sia per la produzione di materie plastiche, sia per la produzione di fibre.

Si può affermare che quest'ultima applicazione riveste un particolare aspetto umanitario dato il basso costo delle fibre di polipropilene. Ad esempio l'Asia è molto interessata a questo problema, ed alcune società Giapponesi (Mitsubishi Petrochemicals, Sumitomo Chemical e Mitsui Chemical Industries) hanno già in progetto di produrre quantitativi rilevanti di fibre di polipropilene su licenze italiane.

Dal punto di vista storico, come Lei ben saprà, le basi della chimica macromolecolare sono state gettate da Staudinger (che tutti riconosciamo come il Padre di tale Scienza). La grande intuizione di Staudinger fu di precisare che i prodotti naturali e sintetici che chiamiamo attualmente polimeri erano per la massima parte costituiti da macromolecole lineari formate da un concatenamento di un grandissimo numero di unità monomeriche chimicamente uguali tra loro. Inoltre Staudinger trovò il modo di determinarne (per via viscosimetrica) il peso molecolare.

Da allora e fino al 1954, la chimica macromolecolare aveva fatto sensibili progressi, soprattutto per quanto riguarda l'affinamento di tecniche già note, ma la preparazione di polimeri cristallini o cristallizzabili era limitata all'impiego di pochi monomeri simmetrici (etilene, isobutene

./.

e pochi altri) o di prodotti di condensazione non condensazione non contenenti atomi di carbonio asimmetrici (Nylon). Queste polimerizzazioni, data la natura dei monomeri, non richiedevano evidentemente l'impiego dei procedimenti stereospecifici scoperti più tardi da noi.

L'aspetto rivoluzionario della polimerizzazione stereospecifica fu appunto dato dal fatto che si tratta di processi di sintesi del tutto nuovi, poichè consentono di ottenere polimeri stereoordinati anche partendo da monomeri asimmetrici (che sono tra l'altro i più numerosi ed alcuni di essi i meno costosi), ottenendo a piacere prodotti aventi proprietà completamente diverse a seconda del tipo di catalizzatore usato, e della sua stereospecificità.

Il primo polimero idrocarburico stereoordinato (il polipropilene isotattico) ottenuto con i nuovi processi stereospecifici è nato in questo Istituto nel 1954 ed è stato brevettato nel giugno e nel luglio di quell'anno (brev.it. 535.712 537.425) La mia prima pubblicazione su quest'argomento è stata presentata ai Lincei l'11 dicembre 1954.

Debbo dire che l'idea relativa a questi processi, mi nacque dall'esame del comportamento in alcune sintesi, dei composti metallorganici studiati da Ziegler e da lui illustrati nel 1952, in una conferenza a Francoforte a cui ho assistito.

Subito dopo suggerii alla Montecatini (che ha poi finanziato le mie ricerche e che è proprietaria dei miei brevetti in questo campo), di acquistare per l'Italia, i brevetti Ziegler riguardanti la sintesi e l'impiego come catalizzatori, dei composti metallorganici.

Dopo questo contratto, lo studio e l'impiego dei composti metallorganici è stato sviluppato sia in Germania sia in Italia. In Germania (nell'autunno 1953) Ziegler fu il primo ad ottenere operando a bassa pressione alti poli-

./.

meri dell'etilene. (In precedenza il ~~propilene~~ polietilene si preparava operando ad altissima pressione, sfruttando un procedimento scoperto in Inghilterra nel 1933)

In Italia nei primi mesi del 1954 furono polimerizzate per la prima volta le α-olefine superiori all'etilene, con produzione di polimeri cristallini. Nei primi brevetti italiani (535.712; 537.425) avevo già chiaramente indicato la struttura stericamente regolare dei polimeri cristallini, che furono da me chiamati isotattici, la struttura stericamente irregolare dei polimeri amorfi (atattici) ottenuti dagli stessi monomeri, ed il modo di separarli.

Veniva anche messa in evidenza l'importanza di questi prodotti per la preparazione di materie plastiche e di fibre.

Nel dicembre 1954, furono da me brevettati nuovi sistemi catalitici altamente stereospecifici per queste nuove sintesi. (Brev. It. 526.101)

Dopo queste prime sintesi fu costituito un pool Montecatini-Ziegler, in base al quale certi brevetti italiani e certi brevetti tedeschi sulle poli- -olefine, furono fusi per l'estensione in certi paesi all'estero; è per queste ragioni che in alcuni brevetti riguardanti la s sintesi delle poli -olefine sono indicati come proprietari Montecatini e Ziegler mentre i nomi dei i rispettivi inventori ~~essendo~~ sono indicati nei brevetti originali italiani e tedeschi.

Dopo la scoperta dei processi di polimerizzazione stereospecifica e dopo la sintesi del polipropilene isotattico, furono condotte in questo Istituto, numerose ricerche per chiarire il meccanismo della sintesi e per preparare e studiare nuovi polimeri.

Le ricerche effettuate nella mia Scuola non si sono limitate alla scoperta dei processi di polimerizzazione edall'ottenimento di polimeri stereoregolari, ma sono state condotti studi approfonditi sul meccanismo chimico della catalisi, sulle cause della stereospecificità, sul- ./.

la natura e la struttura dei complessi catalitici, sulla cinetica della polimerizzazione, sulla natura dei processi elementari delle reazioni, e sulla struttura cristallina e la conformazione delle catene.

Fino ad ora i processi di polimerizzazione stereospecifica sono stati applicati in questo Istituto a svariati monomeri anche non idrocarburici (monomeri vinilici, diolefinici, monomeri con doppio legame interno ecc.), dopo avere evidentemente trovato i catalizzatori più adatti per ogni sintesi.

Sono state da noi scoperte nuove classi di polimeri stereoregolari, di cui si è determinata la struttura reticolare e la conformazione delle catene allo stato solido (isotattici, sindiotattici, diisotattici, eritro e treo, tritattici ecc.). Ad esempio nel caso del butadiene sono stati preparati ed isolati allo stato di alta purezza e studiati, i quattro stereoisomeri prevedibili.

La sintesi forse fra tutte la più interessante da un punto di vista scientifico è stata fatta recentemente. Le unisco a questo riguardo un lavoro pubblicato come lettera all'Editore su "La Chimica e l'Industria", nel quale viene per la prima volta descritta una sintesi asimmetrica con produzione di polimeri otticamente attivi. Le invio anche la fotocopia di una lettera del Prof.Staudinger, dalla quale risulta l'importanza scientifica che il Prof.Staudinger attribuisce a qeust'ultima scoperta. Tutti i polimeri otticamente attivi, conosciuti finora erano polimeri naturali (proteine, cellulose, ecc.) oppure polimeri ottenuti partendo da monomeri già otticamente attivi, e perciò derivanti, direttamente od indirettamente, da processi naturali.

Oltre a quelli che lavorano in questo Istituto, qualche migliaia di ricercatori di altri Istituti e Laboratori Univers industriali di tutto il mondo si sono occupati dopo di noi e si occupano tutt'ora della polimerizzazione stereospecifica.

./.

12 gennaio 1961

In particolare gli enormi interessi connessi a queste scoperte hanno interessato le più grosse società dell'industria chimica mondiale che hanno tentato con ogni mezzo di giungere a procedimenti stereospecifici diversi dai nostri dal punto di vista brevettuale.

La ringrazio molto per il Suo interessamento ai miei lavori e La prego di porgere anche alla Sua gentile Signora; molti cordiali saluti ed auguri.

Giulio Natta

All/ lettera di Staudinger
Elenco pubblicazioni
lettera dell'Editore Chimica e Industria
elenco brevetti ~~[illegible]~~
priorità di alcuni

Oct.13, 1961

Mr. James R. Alburger,
Shannon Luminous Materials Co
7356 Santa Monica Blvd.
Hollywood 46 , California (US

our ref. 807/lv

Dear Mr. Alburger:

With regard to your letter of Sept. 28, I wish to inform you that the polypropylene films are produced in Italy by "POLYMER", a Company of the Montecatini group.

I have forwarded your letter to the General Director of "Polymer", Dr. Silvio Larcher, asking him to send you the samples you require.

Best regards,

G. Natta

Sept.9, I96I

Mr.James R.Alburger,
Shannon Luminous Materials Co
7356 Santa Monica Blvd.
Hollywood 46, California (USA

our ref.7I5/lv

Dear Mr.Alburger:

I apologize for answering your letter of Aug.2I, I96I only now: my delay is due to a surgical ope= ration I underwent two months ago, which compelled me to spend a long period of convalescence. Only a few days ago I started working again in my laboratory.

With regard to the films of polypropylene, I wish to inform you that it is possible for us to send you a transparent product in the visible, and, I believe, also in the range of 2000-4000 A.U., with thickness ranging from 0.002 to 0.0I5 inch. For thickness above 0.0I5 inch, films are generally opaque, at least in the range of the visible.

If you can solve ~~this~~ your problem, by superposing several films, each being 0.0I0-0.0I5 inch thick, please, let me know, and I will send you the samples of film you desire.

With my best regards,

G.Natta

September 13, 1961

R.S.Lamar, Vice President
& Director of Research
P.O.Box 390
SIERRA TALC CO.
South Pasadena, California
(USA)

our ref.707/eg

Dear Mr.Lamar,

Thank you for your letter of July 31, 1961 and for the bulletins you kindly sent to me.

I regret to inform you that it is impossible for us to send you the samples requested, because our production of these elastomers is at present completely used in our research in progress.

If you can send us a sample of some pounds of Mistron Vapor, we can evaluate it as a reinforcing pigment; and send you the results obtained.

Sincerely yours

G.NATTA

CHARLES H. SIMMONS
1200 GREENWAY DRIVE
HIGH POINT, N. C.

May 1, 1961

497

Dr. Giulio Watta
Polytechnic Institution of Milan
Milan, Italy

Dear Dr. Watta:

We reprocess old polyethelene film by heating to liquid form and extruding it. What are the possibilities of fractionally distilling to get pure polyethelene and eliminating dirt, moisture, printing ink, and other contaminants? Please suggest a source in Europe for equipment of this type. Your help is greatly appreciated.

I recently was in Europe and wish that I had known of your works at that time, so that I could have stopped to talk to you.

Cordially,

Charles Simmons

Charles Simmons

STANFORD RESEARCH INSTITUTE
MENLO PARK, CALIFORNIA

DEPARTMENT OF CHEMISTRY

September 25, 1961

Dr. Giulio Natta
Instituto di Chimica Industriale del Politecnico
Milan, Italy

Dear Dr. Natta:

In one of your recent publications dealing with the stereospecific polymerization of 2-Vinylpyridine, you mentioned that you were able to stereospecifically polymerize N-vinylcarbazole by means of a cationic catalysis. It is also mentioned that an Italian Patent Application No. 13,838 has been filed.

For some time now, we have been concerned with a study of the polymerization of N-vinylcarbazole by means of various catalysts of the Ziegler-Natta type, but have failed to observe any stereospecificity, or crystallinity. We are, however, very interested in preparing some stereoregular poly-N-vinylcarbazole) which could, hopefully, be crystallized and were wondering whether you could possibly furnish us with the experimental directions which you found to be successful.

Hoping to hear from you, I remain

Sincerely yours,

Jorge Heller

Jorge Heller
Senior Organic Chemist

JH:aeb

Sierra Talc Company
P. O. Box 390
South Pasadena, California
U. S. A.

SOUTH PASADENA
JUL 31
6 PM
CALIF.

Dr. Giulio Natta, Director
Institute of Industrial Chemistry
Polytechnic of Milan
Milan
ITALY

FIRST FOLD

SECOND FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

NO ENCLOSURES PERMITTED

DO NOT USE TAPE OR STICKERS TO SEAL

P. O. Box 390
South Pasadena, California
July 31, 1961

Dr. Giulio Natta, Director
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Dr. Natta:

We have read with a great deal of interest your paper, "The Elastomeric Properties of Certain Unsaturated Copolymers Containing Ethylene and Propylene", which appears in Rubber Age for July, 1961.

We are producers of Mistron Vapor, a highly reinforcing white pigment which is gaining increased acceptance in this country and Europe. A U. S. company now producing a sulfur vulcanizable ethylene-propylene terpolymer in pilot-plant quantities has reported outstanding results using Mistron Vapor as the reinforcing pigment.

It is our desire to test Mistron Vapor in our laboratory with the ethylene-propylene copolymers of various double bond content and intrinsic viscosity as reported in your paper. Would it be possible for you to send us samples of these eight raw polymers, so that we could undertake such a study? All data that we develop would of course be sent to you.

Under separate cover we are sending to you a complete set of our Sierra Rubber Bulletins describing the use of Mistron Vapor in various polymers under different conditions. We are also sending a copy of our Technical Report 46-T. Although directed toward another industry, this report describes in detail the various basic chemical and physical properties of Mistron Vapor.

We would be delighted to hear from you and to cooperate with you in every way possible.

Very truly yours,

SIERRA TALC COMPANY

R. S. Lamar, Vice President &
Director of Research

RSL:ie

Eugene W. K. Schwarz, Ph. D.
CONSULTANT TO
CHEMICAL, TEXTILE & MAN-MADE FIBER INDUSTRIES

101 WEST 31ST STREET
NEW YORK 1, N. Y.
LACKAWANNA 4-2979

August 26. 1961

Dott.Prof.Ing.Giulio Natta
Istituto Di Chimica Industriale Del Politechnico
Piazza Leonardo Da Vinci 32
Milano

Dear Professor Natta:

For several years I have had in preparation a worldwide Fiber survey supposed to be sponsored by a number of Fiber producers and Chemical Manufacturers interested in the Fiber field.

I have been looking for the proper associated firm with the necessary international organisation to carry out this survey. I have selected the Office of Graham Parker, with headquarters here at 100 Park Ave. and offices in London, Paris, Duesseldorf, Milano, Tokyo, Calcutta and Buenos Aires. I am sure you would like to see a prospectus so I have asked Graham Parker to forward one to you. If you think it might have merit your recommending it to Montecatini, I certainly would appreciate a good word from you. A representative of the Office of Graham Parker will contact Montecatini in a few weeks to discuss this project. We have found a great interest in several countries already, especially Japan.

I hope that you are enjoying the best of health and am looking forward to seeing you before very long.

With best thanks for your consideration and kindest personal regards and best wishes, I remain

Sincerely and respectfully yours

E. Schwarz.

Eugene W.K.Schwarz

OFFICE OF GRAHAM PARKER
INDUSTRIAL AND TECHNICAL CONSULTANTS

NEW YORK 17
100 PARK AVENUE
MURRAY HILL 4-0548

CHICAGO 1
210 PRUDENTIAL PLAZA
WHITEHALL 4-2785

PARIS 8ème
8 BIS RUE DE LA BAUME
ELYSÉES 67-15

MILANO
VIA VERDI 2
TELEPHONE: 872.354

TOKYO
TOYAMA BUILDING
NO.14, 2-CHOME, TAMACHI
AKASAKA, MINATO-KU
TEL: 481-2087

New York, August 30, 1961

Egr. Signor
Dott. Prof. Ing. Giulio Natta
Istituto Di Chimica Industriale Del Politechnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

With reference to Dr. Eugene W.K. Schwarz's letter of August 26, we submit to you a prospectus of our world wide Fiber Survey.

Our representative, Dott. Carlo Parisi, will be happy to discuss further details with you.

Very truly yours,

OFFICE OF
GRAHAM PARKER

A. Dilts

AD. rw.

Se il Prof. N. può rispondere di persona con lei direttamente

Per risposta a Prof. Parisi

Il Prof. può rispondere a Sw. Schwarz di persona in contatto diretto con lei

TEXTILE RESEARCH INSTITUTE

PRINCETON, NEW JERSEY
U.S.A.

Professor G.NATTA
Instituto di Chimica Industriale del Politecnico
Milano, ITALY .

Dear Prof. Natta,

We are planning to write a review article on the problem of order in polymers and as such would highly appreciate your permission to quote some material from your papers which appear in Nuovo Cimento ,del Supplemento al Vol. 15, serie X .

Reference would be made in the text wherever such material is quoted and your permission would be gratefully acknowledged at the end.

An early reply would be highly appreciated.

With best regards,

Yours sincerely

V.D Gupta

V.D.Gupta
Physics Section

August 1,1961

Patton, California
United States of America
May 24, 1961

Dr. Guilo Natta
Montecatini (Univ. of Milan)
Italy

Dear Sir:

I wonder whether you know of the existence of synthetic optically-active isomeric plastic-resin polymers, which have the rotatory power comparable to quartz crystals or sugar solutions. If so, whether you can furnish me the name of it, and the name and address of the manufacturer of it.

I would prefer to obtain this material in sheet, or film, form. I don't suppose you have a small sample available.

I was referred to you by the Polaroid Corporation, Cambridge, Massachussetts, U.S.A.. This material would have experimental use, at first.

Yours Truly,

Surname con
Fariña

B. Wallace
unit T, Drawer B
Patton, California
United States of America

May 15, 1961

Mr. Charles H. Simmons,
1200 Greenway Drive,
High Point, N.C. (U.S.A.)

our ref. 497/lv

Dear Mr. Simmons,

With regard to your letter of May 1, 1961, I wish to inform you that it is impossible to distil polyethylene, owing to its very high molecular weight.
Therefore the method you indicate cannot be applied to reprocessing old polyethylene film.

Sincerely yours,

G. Natta

Oct. 2, 1961

Dr. Jorge Heller
Stanford Research Institute,
Menlo Park, California (USA)
Dept. of Chemistry

our ref. 790/lv

Dear Doctor Heller,

With regard to your letter of Sept. 25, 1961, I wish to inform you that we polymerized N-vinylcarbazole easily, obtaining a polymer that melts at a temperature higher than 300°C.

The difficulties you met may derive either from the fact that you did not use the suitable catalyst or your worked on an impure monomer. If you can send us a sample of N-vinylcarbazole, we would try to polymerize it.

I also wish to inform you that patents on the polymerization belong to Montecatini, and therefore you should apply them, if you want to utilize them for a commercial use.

With my kindest regards.

G. Natta

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY

SYRACUSE 10, NEW YORK

February 27, 1961

Professor G. Natta
Instituto di Chimica Industriale
del Politecno
Milan, Italy

Dear Professor Natta,

I would greatly appreciate any reprints that are available of your work on the synthesis of optically active polymers from 1,3-butadiene carboxylic acid esters and benzofuran. I would also appreciate receiving any reprints of future work in the same field.

Respectfully yours,

Conrad Schuerch

Conrad Schuerch, Chairman
Department of Forest Chemistry

458
459

June 8, 1961

Dr. J.T. Benedict, Manager
Technical Development,
Stauffer Chemical Co.
380 Madison Ave.
New York 17, N.Y. (U.S.A.)

GN:lv

Dear Doctor Benedict:

Thank you very much for kindly sending me Mr. Sittig's article entitled: " How to Make Polypropylene ".

Thanking you again, I send you my best regards.

Giulio Natta

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N. Y.

CABLE ADDRESS "STAUFCHEM"

VIA AIR MAIL

April 20, 1961

Prof. G. Natta
Institute di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy.

Gentlemen :

We have enclosed a copy of an article written by Marshall Sittig entitled " HOW TO MAKE POLYPROPYLENE", which appeared in the Petroleum Refiner of March 1961.

As you know, we supply commercial quantities of titanium trichloride and we manufacture commercial quantities of aluminum alkyls and aluminum alkyl chlorides.

We believe this article to be a good summary and hope it will be of interest to you.

Sincerely yours,

STAUFFER CHEMICAL COMPANY

Dr. J.T. Benedict
Manager, Technical Development

JTB:EL
Encl.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

PITTSBURGH RESEARCH CENTER

4800 FORBES AVENUE
PITTSBURGH 13, PENNSYLVANIA

October 19, 1961

Air Mail

Professor G. N. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Interscience Publishers and John Wiley & Sons, Inc. have asked me to edit a book with the tentative title "Organic Syntheses via Transition Metal Complexes." I agree with them and their scientific advisors about the desirability and timeliness of the presentation of this subject. I am not certain the title of the book is strictly correct; as you will see from the proposed subject matter given below, perhaps "Organic Syntheses via Metal Carbonyls" would be a better title.

I had a chance to speak with Professor Pino in Pittsburgh and again at the 6th International Conference on Coordination Chemistry in Detroit in August. Professor Pino has agreed to write three chapters. I also spoke to Dr. Ercoli in Detroit and he tentatively agreed to write the chapter on metal carbonyls. I very much hope you will agree with this choice. Professor Pino had kindly consented to speak with Dr. Chiusoli who, I firmly believe, should write the chapter assigned to him below.

I would like your approval of the arrangements and would very much like to know your opinion about organizing the book and perhaps, an indication of what you would consider a good title. Olefin polymerization will be omitted, although an organic synthesis via a transition metal complex may certainly be involved in this polymerization.

There is no doubt that the best work in this field has been done by your group, including in this, of course, Professor Pino.

I have included a list of the proposed chapters, their approximate length and the proposed authors. I would welcome any suggestions you might have.

With best personal regards.

Sincerely yours,

Irving Wender

Irving Wender

Enclosure

Organic Syntheses via Transition Metal Complexes

Chapters

1.	Metal Carbonyls: Preparation, Properties, Structure 50 pages	Dr. R. Ercoli
2.	The Oxo and Related Reactions 50 pages	Prof. P. Pino
3.	The Synthesis of Acids, Esters and Amides 30 pages	Prof. P. Pino
4.	The Synthesis of Acrylates 40 pages	Dr. G. P. Chiusoli
5.	The Succinic Acid Synthesis 20 pages	Prof. P. Pino
6.	Cyclic Polymerization of Acetylenes 40 pages	Dr. W. Hubel European Research Associates or Dr. L. Meriwether American Cyanamid
7.	Cyclic Compounds from Acetylenes and Carbon Monoxide 50 pages	Dr. W. Hubel

8.	Other Reactions Catalyzed by Metal Carbonyls	I. Wender and H. W. Sternberg
	50 pages	
9.	Homogeneous Hydrogenation of Organic Compounds	I. Wender
	25 pages	

Authors for Chapters 4 and 6 are tentative. The others have agreed to write their chapters.

John Wiley & Sons Inc. NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
MURRAY HILL 9-7630

Fur

December 6, 1961

Professor G. Natta
Istituto di Chimica Industriale
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

Your letter of November 27th was a most welcome one indeed. Certainly we were extremely pleased to learn that you and Professor P. Corradini now feel you will be able to write the book on "The Crystalline Structure of (Stereo-Regular) Polymers" we are so eager to have you do.

(Lavoro con Corradini)

While we do understand why you hesitate to enter into an agreement for the work now, we want you to know that we are ready to send one along at any time you wish.

We shall, of course, send a copy of your letter to Professor Tobolsky for he, too, will be delighted with the way events have turned out. Both Professor Tobolsky and I shall be in touch with you from time to time - although not so frequently as to be thought overzealous - to learn how the writing is coming along.

With our very best wishes to you and Professor Corradini,

Sincerely,

J. Kenneth Maddock, Senior Editor
The Professional & Reference Book Dept.

JKM:BS
cc. to Professor A. V. Tobolsky
copia a Corradini 12.12.61

Conf

parlarne lunedì 18

Oct. 26, 1961

Prof. Irving Wender,
U.S. Dept. of the Interior,
Bureau of Mines,
Region V
4800 Forbes Ave.
Pittsburgh 13, Pennsylvania

our ref. 852/lv

cc: Prof. P. Pino
Università
Pisa

Dear Doctor Wender:

Thank you for your letter of Oct. 19; I wish to congratulate you on your enterprise. I do believe that the book edited by you will be very interesting.

I agree with your proposal to modify the title as "Organic Syntheses via Metal Carbonyls".

I also remark that Chapter 3: "Synthesis of Acids, Esters and Amides" comprises chapters 4 and 5, at least formally. Therefore the title of Ch. 3 might be modified as "The Synthesis of Acids, Esters, and Amides from Olefinic Compounds" and of chapter 5 as: "The Succinic Acid Synthesis from Acetylene".

I intend to consult with Prof. Pino for examining the opportunity of increasing the number of co-workers for the above-mentioned chapters.

With my kindest regards.

G. Natta

Sept. 1, 1961

Dr. V. D. Gupta, Physics Section
Textile Research Institute,
Princeton, New Jersey (USA)

Dear Doctor Gupta:

With regard to your letter of Aug. 1, 1961 - which arrived in Milan during our Summer holidays and therefore was read with some delay - I am glad to give you my permission to quote material from Nuovo Cimento, Suppl. Vol. 15, serie X.

However, you should ask also the editorial office of that Journal for their permission. Their address is: Redazione Nuovo Cimento, Via Irnerio 46, Bologna, Italy.

With my best regards,

G. Natta

April 12, 1961

M. J. Kopac, President
and
E. Thomas Miner, Exec. Director
The New York Academy of Scien
2 East Sixty-Third Street,
New York 21, N.Y. (USA)

Gentlemen:

Just now I receive through the U.S.-Consul in Milan the engraved certificate of my Honorary Life-Membership in the New York Academy of Sciences, and your kind letter of December 2, 1960.

Therefore, please, excuse my delay in thanking you for your kind words and for the high honour that your Academy conferred on me: I greatly appreciate it.

If the opportunity arises for me to come to New York, I will certainly pay a visit at the Academy Building.

Best thanks and kindest regards,

Very truly yours,

Giulio Natta

THE NEW YORK ACADEMY OF SCIENCES
2 East Sixty-third Street
NEW YORK 21, N. Y.

May 23, 1961

Mr. Lucio Lucini
President
Chemore Corporation
Two Broadway
New York 4, New York

Dear Mr. Lucini:

On behalf of the Board of Trustees and the Scientific Council of The New York Academy of Sciences I acknowledge with great thanks receipt of Stereospecific Catalysis and Stereoregular Addition Polymers, a collection of the original papers by Professor Giulio Natta and coworkers, Volume VI. We are most grateful to Professor Natta for his thoughtfulness in having this volume, which will be a welcome addition to our library, sent to us.

With my cordial, warm regards,

Most sincerely yours,

Executive Director

FTM:RS

June 5, 1961

Dr. B. Wallace,
Unit T, Drawer B,
Patton, California (USA)

our ref. 558/lv

Dear Doctor Wallace:

With regard to your letter of May 24, 1961, I am sorry to inform you that, at present at least, I cannot send you samples of sheets or films of polymers having a high optical activity, because the products obtained up to now on a laboratory scale have already been employed in other tests.

If we have bigger amounts of product in the future, we shall be glad to send you samples of it.

With my best regards,

G. Natta

UNIVERSITY OF MINNESOTA
INSTITUTE OF TECHNOLOGY
SCHOOL OF CHEMISTRY
MINNEAPOLIS 14

DEPARTMENT OF CHEMISTRY

Caro

Minneapolis 27 dicembre 1960

Egregio Professore

Solo oggi sono rientrato in istituto dopo alcuni giorni di assenza da Minneapolis e mi affretto, pur con molto ritardo, ad inviarle i miei più vivi e cordiali auguri per il nuovo anno 1961; spero che Lei avrà la bontà di accettarli e di perdonare questo vergognoso ritardo.

Qui alla Università del Minnesota il mio lavoro procede in modo abbastanza soddisfacente e le mie conoscenze nel campo della spettroscopia vanno allargandosi in modo molto utile. Il Prof. Crawford segue personalmente i diversi lavori e si intrena dei vari dettagli con cordiali ed utilissime discussioni. In questo primo anno di permanenza ho portato a termine due lavori che sono stati inviati all'editore del "Journal of Chemical Physics"; spero di portarne a termine qualche altro in questi miei ultimi mesi di permanenza.

Il tempo infatti passa molto in fretta e solo in questi giorni mi sono accorto di avere già superato la metà del mio periodo di lavoro negli Stati Uniti. Penso infatti di rientrare in Italia nel prossimo novembre.

Come Lei mi scrisse nella sua ultima lettera, io tengo costantemente informato il Prof. Mantica sulle novità nel campo delle apparecchiature e così pure riferito a lui dati che possono essere utili al laboratorio di spettroscopia dell'Istituto.

Se durante il mio soggiorno negli Stati Uniti potrò essere utile in qualche cosa, me lo comunichi ed io sarò ben lieto di occuparmi di questo.

Le rinnovo ancora i miei più sinceri auguri.

Giuseppe Zerbi

che ebbe a
[illegible]

USA 1962

ADVANCES IN CHEMISTRY SERIES
ANALYTICAL CHEMISTRY
CHEMICAL AND ENGINEERING NEWS
INDUSTRIAL AND ENGINEERING CHEMISTRY
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
JOURNAL OF CHEMICAL AND ENGINEERING DATA

ACS APPLIED PUBLICATIONS
PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth St., N. W., Washington 6, D. C. • REpublic 7-3337

20 December 1962

Prof. Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

It was with a great deal of pleasure that I learned some days ago of your selection by the Society of Plastics Engineers to receive its 1963 International Award in Plastics Science and Engineering. My hearty congratulations.

I hope that it will be possible for you to be in the United States to receive this award. Should you be in Washington, D. C., and have even a few minutes, we would consider it a great pleasure if you would come to see us at the American Chemical Society building. We should be pleased to try to answer any questions you might have about our work, and to give you an idea of just what is done here.

My wife joins me in sending our warmest greetings to you and Mrs. Natta.

Sincerely yours,

Richard L. Kenyon

Richard L. Kenyon
Director of Publications

RLK:mhl

Cartella

ADVISORY COMMITTEE ON THE JOHN SCOTT AWARD
Board of Directors ~~of City Trusts~~

P H I L A D E L P H I A

Office of the Secretary
3500 Grays Ferry Ave.
Philadelphia 46, Pa.

October 31, 1962

Professor Lamberto Malatesta,
Direttore Istituto Chimica
Generale e Inorganica
Università di
Milano

Dear Prof.Malatesta,

Thank you for your comprehensive letter of October 9. This additional information will be presented to the Committee at the next meeting to be held early in January. No Awards will br recommended at this particular meeting however, which screens the proposals on hand and, at times, more information is called for. The recommendation for 1963 will be made at a meeting in the late Spring.

I believe, however, that you have given me the information necessary to show the extent of use. Also you have clarified the Du Pont patent question.

Thank you for all of your extensive assistance. You have been very patient. I will kept you advised of any devlopments.

Very truly yours,

J.W.Iliff, Secretary

JWI/mrl

~~BOZZA~~ Oct. 9. 1962

Dear Mr. Iliff,

Thank you for your letter of Sept.21, 1962, concerning the John Scott Award.

With regard to the practical applications of the stereo-regular polymers discovered by Prof.Natta, I wish to inform you that, in spite of the short time from their discovery, isotactic polypropylene is already produced on a wide industrial scale. On the other hand, it is foreseen that isotactic polystyrene, which can find interesting applications in the electrotechnic field due to its high melting temperature (higher than 240°C), and isotactic polybutene, which is interesting owing to the high tear resistance of the films, will be produced on an industrial scale in a near future.

As far as the DuPont patent is concerned, I wish to remind you that, after the publication of Prof.Natta's lectures in 1955 and patents having Italian priority of 1954, a number of research laboratories tackled the problem of the production of isotactic polypropylene. This is why, in these last few years, several patents on methods have been filed also in the U.S.A.; they generally cover more or less useful modifications of the basic proceedings, which, due to the known interference procedures have not been patented yet in the United States. Even if such patents of "method" have been granted, the fact is always true that the priority of the discovery of isotactic polypropylene and of the other stereoregular polymers belongs to Prof.Natta. The award should be granted on the basis of their absolute novelty and particular usefulness.

The DuPont patent mentioned by yourself was filed in 1959, that is five years after the priority of the Italian patents by Prof.Natta. This happened on the basis of the particular U.S. patent laws, which allow to ask for "continuation in part" of previous patents. In fact, such a patent has been asked for as "continuation in part" of a DuPont patent dated August 1954 on the polymerization of ethylene.

This patent described only the polymerization of ethylene, without making any hint to the possibility of obtaining stereoregular polymers of higher alpha-olefins, using particular catalytic systems.

The Italian priority of the first patents by G.Natta is June and July 1954; they are the first patents that describe both the synthesis of crystalline poly-alpha-olefins and their steric structure.

It is known that isotactic polypropylene having a high content of isotactic polymer, is a thermoplastic material with excellent properties; it can be very successfully used to obtain technical articles for electrotechnic applications, for cables and houseware. The excellent properties of these articles are based above all on the excellent mechanical properties, stiffness, superficial hardness and excellent dimensional stability even at high temperatures, of this polymer. Owing to such properties, isotactic polypropylene can also be used for the production of very transparent and ~~stiff~~ tough films, and of textiles: the latter application is getting an increasing importance due to the excellent mechanical properties and good resistance to abrasion and to chemical agents shown by this polymer.

This is why isotactic polypropylene, only 8 years after its first obtainment in laboratory, is already produced on a large scale in a number of countries (Italy, France, Germany, Austria, England, U.S.A., Japan).

A new plant for the production of polypropylene by the Natta-Montecatini process has been built in Brindisi. Thus the Italian production of this polymer by the above-mentioned process will reach 50,000 tons within 1962: of them 7,000 tons are already produced and transformed into fibers in the plant in Terni. The same procedures are also adopted in the Novamont plant at Neals, West Virginia; ~~this company~~ which produce 28 millions of kilos (1962) will also start the production of films and textiles.

32 millions lbs

which produces 28.000.000.000 pounds/year x Novamont

The total production of polypropylene in the United States in 1962 has been of the order of 100,000 tonn/year (more accurate data are lacking); but experts agree in foreseeing a total production of 250,000-300,000 tonn/year in the U.S.A. by 1965.

These discoveries have not only this immediate usefulness in the field of stereoregular polyolefins, but (also in the future progress of polymer science) ~~also in the long run.~~ Their possible developments are still unforeseeable.

It can be undoubtedly stated that these discoveries opened a frontier, which seemed impenetrable until a few years ago: that of polymers with a regular steric structure.

The synthesis and the study of new polymers having a regulated steric structure in fact allowed to establish very useful correlations between properties (both physical and technological) and structure of polymers. This allowed to widen remarkably the knowledge in polymer science and to establish new scientific principles for further progress in this field.

I hope that these comments have cleared the two points mentioned in your letter.

Looking forward to hearing from you on this particular matter soon, I am

Very truly yours,

L.Malatesta

B O Z Z A

Dear Mr. Iliff,

Thank you for your letter of Sept.21, 1962, concerning the John Scott Award.

With regard to the practical applications of the stereo-regular polymers discovered by Prof.Natta, I wish to inform you that, in spite of the short time from their discovery, isotactic polypropylene is already produced on a wide industrial scale. On the other hand, it is foreseen that isotactic polystyrene, which can find interesting applications in the electrotechnic field due to its high melting temperature (higher than 240°C), and isotactic polybutene, which is interesting owing to the high tear resistance of the films, will be produced on an industrial scale in a near future.

As far as the DuPont patent is concerned, I wish to remind you that, after the publication of Prof.Natta's lectures in 1955 and patents having Italian priority of 1954, a number of research laboratories tackled the problem of the production of isotactic polypropylene. This is why, in these last few years, several patents on methods have been filed also in the U.S.A.; they generally cover more or less useful modifications of the basic proceedings, which, due to the known interference procedures have not been patented yet in the United States. Even if such patents of "method" have been granted, the fact is always true that the priority of the discovery of isotactic polypropylene and of the other stereoregular polymers belongs to Prof.Natta. The award should be granted on the basis of their absolute novelty and particular usefulness.

The DuPont patent mentioned by yourself was filed in 1959, that is five years after the priority of the Italian patents by Prof.Natta. This happened on the basis of the particular U.S. patent laws, which allow to ask for "continuation in part" of previous patents. In fact, such a patent has been asked for as "continuation in part" of a DuPont patent dated August 1954 on the polymerization of ethylene.

This patent described only the polymerization of ethylene, without making any hint to the possibility of obtaining stereoregular polymers of higher alpha-olefins, using particular catalytic systems.

The Italian priority of the first patents by G.Natta is June and July 1954; they are the first patents that describe both the synthesis of crystalline poly-alpha-olefins and their steric structure.

It is known that isotactic polypropylene having a high content of isotactic polymer, is a thermoplastic material with excellent properties; it can be very successfully used to obtain technical articles for electrotechnic applications, for cables and houseware. The excellent properties of these articles are based above all on the excellent mechanical properties, stiffness, superficial hardness and excellent dimensional stability even at high temperatures, of this polymer. Owing to such properties, isotactic polypropylene can also be used for the production of very transparent and ~~stiff~~ tough films; and of textiles: the latter application is getting an increasing importance due to the excellent mechanical properties and good resistance to abrasion and to chemical agents shown by this polymer.

This is why isotactic polypropylene, only 8 years after its first obtainment in laboratory, is already produced on a large scale in a number of countries (Italy, France, Germany, Austria, England, U.S.A., Japan).

A new plant for the production of polypropylene by the Natta-Montecatini process has been built in Brindisi. Thus the Italian production of this polymer by the above-mentioned process will reach 50,000 tons within 1962: of them 7,000 tons are already produced and transformed into fibers in the plant in Terni. The same procedures are also adopted in the Novamont plant at Neals, West Virginia, which produces 28 million pounds/year. Novamont ~~this company~~ will also start the production of films and textiles.

The total production of polypropylene in the United States in 1962 has been of the order of 100,000 tonn/year (more accurate data are lacking); but experts agree in foreseeing a total production of 250,000-300,000 tonn/year in the U.S.A. by 1965.

These discoveries have not only this immediate usefulness in the field of stereoregular polyolefins, but also in the ~~long-run~~ future progress in polymer science. Their possible developments are still unforeseeable.

It can be undoubtedly stated that these discoveries opened a frontier, which seemed impenetrable until a few years ago: that of polymers with a regular steric structure.

The synthesis and the study of new polymers having a regulated steric structure in fact allowed to establish very useful correlations between properties (both physical and technological) and structure of polymers. This allowed to widen remarkably the knowledge in polymer science and to establish new scientific principles for further progress in this field.

I hope that these comments have cleared the two points mentioned in your letter.

Looking forward to hearing from you on this particular matter soon, I am

Very truly yours,

L.Malatesta

COPIA

Advisory Committee on the John Scott Award
Board of Directors of City trusts
Philadelphia

September 21, 1962

Professor L.Malatesta Direttore
Instituto di Chimica Generale
Universita di Milano
Via C. Saldini - 50
Milano, Italy

Dear Professor Malatesta:

You may very well wonder if we will ever complete out investigation of the proposal that Professor Natta be given the John Scott Award for his invention of a method of preparing stereoregular (or isotactic) hydrocarbon polymers. In fact I wonder myself:

This letter is written to tell you of the present status of the proposal and to see if you can help us resolve the questions raised by the Committee.

The "completed" proposal was presented to the Committee which raised questions concerning the peculiar usefulness of the polymers produced under this invention.

The position taken by the Committee is that many polymers, or plastics, if you will, have appeared over recent years. While these are not "just a new family" as they possess particularly useful properties, the question was raised, where are these polymers used, and to what extent (even potentially) so that their particular usefulness to mankind can be assessed.

It is also probable that a further question will be raised due to recent publicity in this country about a patent recently issued here and assigned to Du Pont on a method of making polypropylene. I hope to clear both points prior to the Committee's next metting at the end of the year.

Any comments you wish to make will be appreciated.

Very truly yours,

J.W.Iliff, Secretary

JWI/mrl

MONTECATINI
SERVIZIO BREVETTI

Milano, 26 settembre 1962

Egr. Sig.
Prof. Giulio Natta
Ist. Chim.Ind.
POLITECNICO
di MILANO

RP/cg

John Scott Award

Ricevo la Sua del 25.

Per quanto riguarda il brevetto du Pont, a me sembra si possa dire in genere che di brevetti su metodi per polimerizzare il propilene ne sono usciti molti, anche negli Stati Uniti, in questi ultimi anni, e che in genere coprono modifiche, più o meno utili, dei procedimenti base, che, a causa delle note procedure di "interference", non sono ancora protetti da brevetto in America.

La concessione di questi brevetti di "metodo" non cambia comunque il fatto che a Lei spetta la priorità della invenzione del polipropilene isotattico e degli altri polimeri stereoregolari, sul cui carattere di assoluta novità e particolare utilità si dovrebbe basare il conferimento del premio.

A parte l'utilità immediata dei polimeri in questione, mi pare si dovrebbe mettere in evidenza la "utilità" a lunga scadenza delle Sue invenzioni, che hanno aperto nuovi campi di ricerca i cui sviluppi sono imprevedibili.

Distinti saluti.

R. Pirani

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. Albert Noyes, Jr., Editor
Marshall Gates, Asst. Editor

Department of Chemistry
University of Rochester
River Campus Station
Rochester 20, New York

May 29, 1962

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza L. da Vinci 32
Milano, Italy

Dear Sir:

book: Polyolefines
author: Topchiev and Krentsel'

We are happy to learn that you will review this book for the Journal of the American Chemical Society.

Will you please submit the review in duplicate, double-spaced, and include the information given below as the heading of the review. The heading should be single-spaced.

Will you please include your name and address at the end of the review.

We are sending you the book under separate cover and would appreciate receiving the review within three months, but preferably within one month.

Very sincerely yours,

W. Albert Noyes, Jr.

W. Albert Noyes, Jr.
Editor

HEADING FOR BOOK REVIEW:

Polyolefines. By A. V. Topchiev and B. A. Krentsel', U.S.S.R. Academy of Sciences. Translated from the Russian by A. D. Norris, MA., D.Phil.(Oxon), F.R.I.C., F.I.L. (Lecturer in Physical Chemistry, Hull University). Pergamon Press Ltd., Headington Hill Hall, Oxford, England. 1962. xi + 92 pp. 14.5 x 22 cm. Price, $3.50.

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. Albert Noyes, Jr., Editor

Marshall Gates, Asst. Editor

Department of Chemistry
University of Rochester
River Campus Station
Rochester 20, New York

May 17, 1962

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Sir:

Book: Polyolefines
Author: Topchiev and Krentsel
Publisher: Pergamon Press

We would like very much to have you prepare a review of this book for the Journal of the American Chemical Society and will be happy to send you the book as soon as we receive your consent to do this.

Hoping very much that you will undertake this task,

Very sincerely yours,

W. Albert Noyes, Jr.

W. Albert Noyes, Jr.
Editor

arretta
mfoto 25/5/62

ADHESIVES AND RESINS DIVISION
3400 13th Avenue Southwest, Seattle 4, Washington

A Chemical Products Division of
MARTIN MARIETTA

May 14, 1962

Politecnic-
32 P. L. Da Vinci
Milan, Italy

21 MAG 1962
428

Gentlemen:

We have an urgent need for a material suitable to our development of a hot melt adhesive. Your product

Tritactic polymers

offers some possibility and we would appreciate receiving a minimum one pound sample along with technical information and prices.

In the event there are other materials you may recommend for our evaluation, we would be pleased to receive them. We believe the use requirements of an adhesive which may fill our needs are about as follows:

1. Must not soften appreciably at temperatures below 180°F.
2. Should have good resistance to weather and to hydrocarbons.
3. Should be pumpable at temperature of 500°F or lower.
4. Should be relatively non-toxic to handle and to use when normal safety precautions are used.
5. Should show no appreciable decomposition while held for periods up to 4 hours at or near its pumpable temperature.
6. Should preferably be in granular or powder form which does not fuse together in storage at temperatures up to 100°F.

Materials that reasonably meet these requirements will be of great interest.

Please mark samples, literature, and all correspondence with reference No. WR-1075.

Sincerely,

Brown L Miller

BROWN L. MILLER
Manager of Purchases

BLM:bf

AIR REDUCTION COMPANY
INCORPORATED
CENTRAL RESEARCH DEPARTMENT
CENTRAL RESEARCH LABORATORIES
MURRAY HILL, N. J.
464-2400

Am

July 23, 1962

Professor G. Natta
Instituto di Chemica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your cordial letter of July 16. I shall look forward to visiting the Institute this fall.

Now that my plans are more complete I am scheduled to be in Milan on October 17, 18 and the morning of the 19th. On my arrival I will telephone your office and arrange a meeting with you or, if you are not available, with your associates. However, I do hope that you will be in Milan and that I shall be able to see you there.

With kindest regards, I am

Sincerely yours,

Bryan C. Redmon

Bryan C. Redmon
Director of Research

AIR REDUCTION COMPANY

INCORPORATED

CENTRAL RESEARCH DEPARTMENT

CENTRAL RESEARCH LABORATORIES

MURRAY HILL, N. J.

464-2400

June 21, 1962

Professor G. Natta
Instituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I recall with pleasure meeting you at your home in Milan in February of 1956 and subsequently visiting with you your laboratories. I am planning another trip to Europe for this coming fall in order to visit various technical contacts and friends with particular reference to our company's research work.

In accordance with present plans, I will be in Milan on October 18 and 19, inclusive. If convenient for you, I would consider it a privilege to have the opportunity of visiting with you on one of these days. If this arrangement meets with your approval, will you kindly let me know so that I may include it in my schedule of activities.

I shall hope very much to have the pleasure of seeing you again.

Very sincerely yours,

Bryan C. Redmon

Bryan C. Redmon
Director of Research

AMERICAN PETROLEUM INSTITUTE
DATA DISTRIBUTION OFFICE
Agricultural and Mechanical College of Texas
A. AND M. PRESS
COLLEGE STATION, TEXAS

AIR MAIL

April 25, 1962

Instituto De Chimica Industriale Del Palitecnico
Piazza Leonardo do Vinci 32
Milano, Italy

ATTENTION: Professor G. Natta

Dear Professor Natta:

In accordance with your request of April 9, 1962, we are sending to you under separate cover the following material issued by the American Petroleum Institute Research Project 44:

(F) One set of nuclear magnetic resonance spectral data, comprising 80 sheets, complete as of December 31, 1961.

In return for receiving the foregoing material gratis from the American Petroleum Institute Research Project 44, it is understood that the material willbe made freely available to all the members of your organization who may have need of the data.

If in the future you find that this material is not needed by your organization, please return it to me by express collect at your earliest convenience.

Very truly yours,

Dr. Bruno J. Zwolinski
Director, American Petroleum Institute Research Project 44

By Louise Winningham
(Mrs.) Louise Winningham
In Charge, Data Distribution Office

Enclosure
Copy to: Dr.W. O. Taff, Chairman, Advisory Committee for the APIRP44
Mr.W. L. Cullison, American Petroleum Institute

AVISCO

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pennsylvania

RESEARCH AND DEVELOPMENT

September 4, 1962

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Your letter of August 29th reached me today, and I hasten to acknowledge it and thank you for it. No doubt my letter of August 24th has crossed yours in the mail.

I regret very much, of course, that we will not be able to have the distinction of adding your name to the list of editors who will be producing the various chapters of our forthcoming book, SYNTHETIC FIBERS IN PAPERMAKING. I appreciate very much the courtesy of your letter of August 29th, and trust that you will understand the necessity on my part in establishing an editor for the chapter on polyolefins in papermaking, inasmuch as we have such a severe deadline to meet, which is the end of this year.

As matters now stand, I believe that Dr. Victor Erlich and Mr. C. H. Teague will be the authors for this particular chapter.

At this time it is a pleasure for me to send you a copy of a recent publication on microcrystalline cellulose which you may find of interest. Interestingly enough, we have succeeded in utilizing microcrystalline cellulose as a carrier for "Natta-type" catalysts in polyolefin polymerization studies.

Once again asking your understanding of the necessity on my part to seek another editor for the particular chapter of the book on polyolefins hurriedly, and assuring you of my esteem for your many excellent technical and scientific contributions, I remain, with all good wishes,

Sincerely yours,

O. A. BATTISTA, Manager
Corporate Applied Research Department

OAB:dd

AVISCO

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pennsylvania

RESEARCH AND DEVELOPMENT

August 24, 1962

Prof. Giulio Natta
Via Mario Pagano 54
Milan, Italy

Dear Prof. Natta:

Inasmuch as we have not received any word from you in response to our letters of June 5 and August 7, 1962, respectively, and because the deadline for our book, SYNTHETIC FIBERS IN PAPERMAKING, is fast approaching, I regretfully find myself obliged to withdraw the invitation which I extended to you to author the chapter on Polyolefin Fibers in Papermaking. I am sure you will understand my reason for doing this. All of the other chapter authors have been assigned, and we are aiming for a December, 1962 deadline for all of the manuscripts. Accordingly, I am now taking steps to assign the chapter on Polyolefin Fibers in Papermaking to another author.

All good wishes.

Sincerely yours,

O. A. Battista, Editor-in-Chief
SYNTHETIC FIBERS IN PAPERMAKING

OAB:dd

AVISCO

AMERICAN VISCOSE CORPORATION

Marcus Hook, Pennsylvania

RESEARCH AND DEVELOPMENT

August 7, 1962

Prof. Giulio Natta
Via Mario Pagano 54
Milan, Italy

Dear Prof. Natta:

This is an urgent follow-up to my letter of June 5, 1962 inviting you to be the editor of a chapter in our forthcoming book, SYNTHETIC FIBERS IN PAPERMAKING. I am enclosing herewith a Table of Contents showing the magnificent roster of authors who already have agreed to contribute to this book. We are in urtent need to know whether or not you can contribute the chapter on The Polyolefins, at the earliest possible date. Would you please be so kind as to advise me at your earliest convenience whether you will be able to accept our invitation of June 5, 1962.

If you cannot personally do this chapter, your suggestions or recommendations for an alternate author whom we may invite to do it would be appreciated.

I shall look forward to the earliest possible word from you. Thank you very much.

Sincerely yours,

O. A. Battista, Editor-in-Chief
SYNTHETIC FIBERS IN PAPERMAKING

OAB:dd

TABLE OF CONTENTS

SYNTHETIC FIBERS IN PAPERMAKING

SOCIETY OF PLASTICS ENGINEERS, INC.

PHILADELPHIA SECTION

AIR MAIL

May 3, 1962

Dr. Giulio Natta, Director
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milan, Italy

389

Dear Dr. Natta:

As you know, the Society of Plastics Engineers recently conducted a Regional Technical Conference on polypropylene. We regret that you were unable to be present. We are sending you, with our compliments, a copy of the technical papers presented at the Conference. We believe you would have been proud to hear these contributions which reflect the growth of your discovery into one of the major plastics of world commerce.

Very truly yours,

Roger F. Jones

Roger F. Jones
Conference Chairman

RFJ:mas

Mr. Roger F. Jones
AVISUN CORPORATION
Post Road
Marcus Hook, Pennsylvania
U. S. A.

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

September 20, 1962

Ann

AIR MAIL

728

Dr. Giulio Natta
Polytechnic Institute of Milan
Pizza Leonardo Da Vinci 32
Milan, Italy

Dear Dr. Natta:

Enclosed are tear sheets of the second-half of the article from PETROLEUM REFINER by you and your co-workers entitled "New Ethylene-Propylene Elastomers".

I have asked Dr. Serpieri if he wishes additional reprints and should he wish them, I am sure he will supply you with as many as you wish.

It was a pleasure to have the opportunity to obtain publication of another of your outstanding manuscripts.

Cordially,

Patricia Nowicki

Patricia Nowicki
Account Executive
Public Relations Department

PN/bd
Enclosure

Check all reports

ARTHUR WEINBERG
Vice President
Public Relations Dept
G.H. Basford Co.
60 East 42nd Street
New York City 17, N.Y.

February 20, 1962

Dear Professor Natta:

A belated thank you for your courtesy and attention during our recent interview.

I am enclosing a set of the photographs taken that rainy day. They are not as good as others I have made, but they will serve us well for our "editorial interview."

If you would like additional copies (large or smaller) write to me, and I will order them. Simply send me the numbers in red on the back.

Again many thanks -- any my best wishes to Senora Natta.

Sincerely,

Arthur Weinberg

Arthur Weinberg

impressive

Ann

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

January 9, 1962

Mr. R. Lamma
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Mr. Lamma

Your letter of December 28th regarding the invitation of the Philadelphia Chapter of the S. P. E for Dr. Natta to address the April 17th meeting has been taken care of, and I have attached a copy of my letter to Mr. Deegan who made the invitation. Mr. Deegan expressed the regret of the entire Chapter, but asked me to convey sincere wishes for Dr. Natta's speedy and complete recovery.

Incidentally, this invitation was not the one covered by Dr. Natta's letter of October 9th. That invitation was for Dr. Natta to address the Annual Technical Conference being held the week of January 29th in Pittsburgh; Mr. Deegan's invitation was for a Chapter meeting in Philadelphia on April 17th.

Many thanks for letting us know about this invitation so promptly. We all hope that sometime in the immediate future Dr. Natta's health will permit him to again honor us with his presence in the United States.

Very truly yours,

Patricia Nowicki

Patricia Nowicki
Account Executive
Public Relations Department

PN/bd
Enc.
Mr. Deegan

Sentiamo
Questo 1/10
a Corso

25.9.1962

Egr.Dr.R.Pirani
Ufficio Brevetti
Società Montecatini

Sede

ns.rif.N.731/rl

Egregio Dottore,

ricevo da parte del Prof.Malatesta una lettera di cui Le allego copia, relativa alla proposta del John Scott Award.

Gradirei conoscere il parere di BREV relativo alla posizione che devo prendere rispetto al recente brevetto della Du Pont.

E' da tener presente che la prima proposta per l'assegnazione di tale premio risale al settembre 1960 e mi sembra che tale proposta fosse stata fatta da qualcuno della Du Pont stessa.

Le sarei grato di una sollecita risposta e di informare della cosa l'ing.deVarda in USA, se Lei ritiene che sia utile.

I migliori saluti.

G.Natta

P.S. - Stiamo preparando una bozza di risposta che Le invieremo in visione al più presto.

All/

Americ
ACS

July 9, 1962

Mr. W.Albert Noyes, Jr.
Editor,
J.American Chemical Soc.
Dept.of Chemistry,
University of Rochester,
River Campus Station,
Rochester 20, New York (USA)

our ref.453/lw

Dear Mr.Noyes:

With regard to your letter of May 29, 1962 and to your request to review the Book "Polyolefins" by Topchiev and B.A. Krentsel', I herewith enclose the text of my review. Please, let me know if this text is too long, and I will condense it, unless you wish to do it yourself.

With my kindest regards.

G.Natta

Encl/

July 16, 1962

Dr.Bryan C.Redmon,
Director of Research,
AIR REDUCTION COMPANY,
Central Research Dept. & Labs.
Murray Hill, N.J.

our ref.529/lv

Dear Doctor Redmon:

Thank you for your letter of June 21, 1962. With regard to your planned visit on Oct.18 and 19, I regret to say that I am not sure to be in Milan during that period. In fact, I shall have to go abroad several times in September and October, due to previous engagements.

If I am in Milan, I will be most pleased to meet you and show my Institute to you. On the other hand, if I am absent, you can come and meet some co-workers of mine, who will be glad to show you our Laboratories.

Hoping to meet you next October, I send you my kindest regards.

G.Natta

May 30, 1962

Mrs.Louise Winningham,
Data Distribution Office,
American Petroleum Institute,
Agricultural and Mechanical Coll
of Texas,
A. and M. Press,
College Station, Texas

Dear Mrs.Winningham:

Thank you for your letter of April 25 and for kindly sending me one set of nuclear magnetic resonance spectral data, ~~comprising~~ 80 sheets, complete as of Dec.31, 1961, as well as I.R., U.V., Raman, and Mass Spectral data.

I shall care that this material may be available to the co-workers of mine who are interested in it.

Thanking you again, I send you my kindest regards.

Very truly yours,

G.Natta

April 9, 1962

American Petroleum Institute,
Data Distribution Office,
Agricultural & Mechanical
College of Texas,

A. and M. Press
College Station, Texas (USA)

Dear Sir:

I wish to thank you very much for kindly sending me the Infrared Spectral Data and Mass Spectral Data, Supp. for the period 1-1-1961 to 6-30-1961.

I would mostly appreciate receiving also the Nuclear Magnetic Resonance Spectral Data.

Thank you for your kind concern.

Sincerely yours,

G.Natta

Sept. 27, 1962

Dr.O.A.Battista, Manager
Corporate Applied Research Dept.
American Viscose Corporation,
Marcus Hook, Pennsylvania (USA)

our ref.680/lv

Dear Doctor Battista:

Thank you for your letter of Sept. 4, 1962. I am glad that you have found editors for the chapter of the book "Synthetic Fibers in Papermaking", since, as I already wrote to you, I could not be one.

I also wish to thank you for the reprint of your interesting article enclosed in your letter.

With my best regards,

Giulio Natta

29.8.1962

Dr.O.A.Battista, Editor-in-C
Synthetic Fibers in Papermak
American Viscose Corporation
Marcus Hook, Pennsylvania
Research & Development Divis

Dear Doctor Battista:

Your letter of Aug.7, with a copy of your letter of June 5, were received with delay, on my return to Milan from my Summer holidays.

I mostly regret informing you that I cannot accept your invitation to write the article for the book "Synthetic Fibers in Papermaking", since my experience in such a field is very limited.

If the article would deal with polyolefin fibres, and in particular with polypropylene fibres, for the usual applications as textiles, I would have written it with the co-operation of technicians belonging to Montecatini, who also have a scarce experience in the field of papermaking.

Therefore, I am very sorry not to be able to accept the task you proposed to me. I think you will find someone par= ticularly expert in papermaking with polyolefins, among the DuPont technicians.

With my kindest regards.

G.Natta

Apt. 101, 528 Thayer Avenue
Silver Spring, Md., U. S. A.
February 28, 1962

203

Dear Professor Natta:

Thank you for your letter of February 7. I did not receive your other letter, to which you referred, until my return from my trip.

It was nice speaking to Professor Massanti and I enjoyed my ~~visit~~ talk with him very much. Please extend my thanks to him for his hospitality.

If you will inform me of the next meeting of the Italian Chemical Society, I may have some work at that time to present to the meeting and that will give us an opportunity to meet in person.

If you ever get the opportunity to visit this corner of the world I would be very happy to spend as much time with you as possible. Hoping we may soon meet, I remain

Very truly yours,

R. N. Chadha

R. N. Chadha

RNC:fh

May 11, 1962

Mr. Roger F. Jones
AVISUN CORPORATION
Post Road,
Marcus Hook, Pennsylvania (USA)

our ref.389/lv

Dear Mr.Jones:

Thank you for your kind letter of May 3, and for sending me the technical papers presented at the Regional Technical Conference on polypropylene, of S.P.E.

I have not received them yet, but I am looking forward to reading them.

I wish to thank you also for the kind words you expressed to me in your letter.

Very truly yours,

G.Natta

March 13, 1962

Mr.Arthur Weinberg, Vice President
Public Relations Dept.
G.M.Basford Co.
60 East 42nd Street,
New York City 17, N.Y. (USA)

Dear Mr.Weinberg:

Thank you very much for kindly sending me the photographs you took on your visit here. I enjoyed seeing them very much.

With my kindest regards.

G.Natta

GN/lv

Jan.18, 1962

Dr.Herold Brownen,
5825 Waverly Ave.
LaJolla, California (USA)

Dear Mr.Brownen:

Thank you very much for your kind wishes which I heartily reciprocate. I wish you and Mrs.Brownen a very happy 1962.

With my kindest regards.

G.Natta

April 6, 1962

Mr. R.N.Chadha,
Apt.101, 528 Thayer Avenue,
Silver Spring, Md., U.S.A.

our ref.203/lv

Dear Mr.Chadha:

I apologize for answering your letter of Feb.28 only now: my delay is due to the fact that up to now it has been impossible for me to decide about my attendance to the next meeting of the Italian Chemical Society, to be held in Naples, from May 27, to June 2, 1962, owing to my state of health.

Now, I have decided to go to Naples in order to participate in a meeting of the Italian National Council, which will take place in Naples during the Congress.

I shall be glad to meet you either in Naples, if you are there in that period, or in Milan on your way back.

With regard to the lectures you wish to deliver at the Naples Congress, the deadline for acceptance had already expired a month before my receiving your letter, which arrived here only on March 12. But, if you wire me the title of your lecture, I would write to the Organizing Committee in order to try to have it accepted; however, most probably, it will not be printed in the program. Please, send me by air mail also a short synopsis of your paper.

Accept my best regards,

G.Natta

August 7, 1962

Professor Dr. Natta
Instituto Di Chimica
Industriale Del Polytecnico
Piazza Leonardo Da Vinci 32,
Milano,
Italy

Dear Prof. Dr. Natta

Thank you very much for your letter and I am pleased to hear that you allowed me to visit you. I will call you up when I arrive there. I have a favor to ask you. Dr. Asahina who studies high polymer physics and is Professor Sakurada's student has been ordered to attend the International Organization for Standardization held in Warsaw from Sep. 17 to 22 as a delegate of Japan by the Association of P. V. C. in Japan.

He wishes to have a opportunity to visit you with me before the meeting.

I would greatly appreciate it, if you could allow me to visit you with him.

Sincerely yours,

Satoru Enomoto

Satoru Enomoto
The University of Michigan
Harrison M. Randall
Laboratory of Physics.
Ann Arbor, Michigan,
U. S. A.

16 AUG 1962

R

Dem

July 11, 1962

Professor Dr. G. Natta
Instituto Di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci 32, Milano
Italy

16 AUG 1962

Dear Prof. Natta

Thank you very much for your letter of June 27. I greatly appreciate your kind arrangements for me in case of your absence. It is my pleasure to visit your laboratory, however, I desire earnestly to meet you if possible.

Looking forward to seeing you.

Sincerely yours,

Satoru Enomoto

Satoru Enomoto
Harrison M. Randall Laboratory of Physics
The University of Michigan
Ann Arbor, Michigan
U. S. A.

Ann

July 11, 1962

Professor Dr. G. Natta
Instituto Di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci 32, Milano
Italy

Dear Prof. Natta

Thank you very much for your letter of June 27. I greatly appreciate your kind arrangements for me in case of your absence. It is my pleasure to visit your laboratory, however, I desire earnestly to meet you if possible.

Looking forward to seeing you.

Sincerely yours,

Satoru Enomoto

Satoru Enomoto
Harrison M. Randall Laboratory of Physics
The University of Michigan
Ann Arbor, Michigan
U. S. A.

ITALCABLE

ITM TWA552 FY NEWYORK TELEXED FROM POTTSTOWNPENNA

Prefisso - Numero - Provenienza - Numero Parole - Data - Ore - Indic 31/29 7 150P

R LA RISPOSTA TELEFONATE AL N. 8838

NATTA MONTECATINI MILAN
MONTECATINI G NATTA
Montecatini Soc.Gen.per
l'Industr.Mineraria e Chimica
Largo Donegani 1-2
2281 MILANO
~~(ore apertura xfd 1/2 tele)~~

TELEGRAMMA via Italcable via Italo Radio

20 04

Spazio riservato agli estremi di ricevimento

ITALCABLE - 7-12-961 MILANO

TECH CONFERENCE ON POLYPROPYLENE TO BE HELD 4/17/62 SPE
HILADELPHIA SECTION REPLY BY 12/31/61 IF ABLE TO PARTICIPATE
N POLYMER SCIENCE SECTION C C DEEGAN

controllare lettere e rispondere

June 18 1962

Prof Dr. G. Natta

Instituto Di Chimica
Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32,
Milano, Italy.

Dear Prof. Natta:

I am very pleased to have your letter of May 30, and greatly appreciate your kindness. I informed you that I visit you on September 11, however, I have found my mistake in the schedule, so that I would prefer to visit you on September 10, if possible. When it is not available, I would like to visit you as previously appointed.

I am looking forward to seeing you.

Sincerely yours,

Satoru Enomoto

Satoru Enomoto

Harrison M. Randall
Laboratory of Physics,
The University of Michigan,
U. S. A.

In interessa di conoscere strutture e proprietà fisiche dei polimeri

June 10, 1962

Satoru Enomoto
Harrison M. Randall Laboratory
The University of Michigan
Ann Arbor, Michigan
U. S. A.

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
32-Milano
Italy

Dear Professor Natta;

Thank you very much for your letter of May 30, 1962. I am very glad that you permit me to visit your laboratory on September 11.

I am looking forward to having mutually interesting discussion.

Sincerely Yours

Satoru Enomoto

Satoru Enomoto

May 20, 1962

Prof. Dr. G. Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci
32-Milano, Italy

Dear Dr. Natta:

Thank you for the letter of May 10. I would like to visit you on September ~~7th or~~ 11th in the morning. When I am obliged to change my travel schedule, I will inform you it as soon as possible.

I would greatly appreciate it, if you could inform me the location of your laboratory at your earliest convenience.

Sincerely yours,
Satoru Enomoto

Satoru Enomoto
Harrison M. Randall Laboratory of Physics
The University of Michigan
Ann Arbor, Michigan, U. S. A.

April 22, 1962

Prof. Dr. G. Natta
Instituto Chimica Industriale, Milano
Milano, Piazza Leonardo da Vinci, Italy

27 APR 1962
R 364

Dear Dr. G. Natta:

I am writing this letter of inquiry to have an opportunity of discussion with you. I studied structure and physical properties of high polymers as a research staff member at the Tokyo Laboratory of Kureha Kasei Co. after I graduated from Kyoto University in Japan. Since August, 1961, I have been studying infrared spectra of high polymers with Prof. S. Krimm at the University of Michigan. I am planning to return to Japan by the way of Europe after I finish my studies at the University in August this year.

I desire, earnestly, to know the situation of high polymer studies in your country, especially what the Italian people think about the method and the process for the high polymer studies, because I believe there are some differences between the Italian methods and the American methods. But unfortunately I am quite unfamiliar with high polymer students in your country.

I wish to visit your laboratory in September in order to have a talk about high polymers with you and those students who study structures and physical properties of high polymers.

I would greatly appreciate it, if you could help me visit your laboratory and also could you arrange for me to talk to those students who study in the same field as mine. I will be very glad, if you allow me to visit you and inform me of your convenience at your earliest chance, because I am now about to make my travel schedule. I will let you know a satisfactory date as soon as my schedule is done.

Sincerely yours,

Satoru Enomoto

Satoru Enomoto
The University of Michigan
Harrison M. Randall Laboratory of Physics
Ann Arbor, Michigan, U. S. A.

Via Orsoni

[illegible]

[illegible] visita

Feb.7, 1962

Dr.R.N.Chadha,
7100 Cedar Avenue,
Takoma Park,
Maryland (USA)

Dear Doctor Chadha:

I mostly regret to have missed the opportunity to meet you on your visit to Milan. As I wrote to you c/o the Passirana Laboratories, my Institute was closed on Jan.21 being Sunday. I also suggested you to postpone your visit for the following day. However, I believe that you did not get my letter, since I have been told that you called me up at home.

Hoping another opportunity will arise in the future to meet you, I send you my kindest regards.

G.Natta

Jan.23, 1962

Prof.Herbert N.Friedlander,
Chemstrand Research Center,
Durham, North Carolina, (USA)

Dear Professor Friedlander:

I wish to thank you very much for kindly sending me the number concerning the Symposium on Alpha-Olefins copolymers, which I will read with interest.

With my kindest regards,

Giulio Natta

18.1.1962

Egr.Dr.Enrico Clementi
I.B.M.Research Laboratory
Monterey and Cottle Rds
San Jose 12, California, USA

Caro Clementi,

sono lieto di ricevere Sue notizie e di sapere che Lei si è sistemato in modo soddisfacente in U.S.A.

Non è facile trovare in Italia sistemazioni molto buone e meno di non disporre di una congiuntura particolare in un campo in cui non vi sono [illegible] disponibili.

Sarò lieto se potrò mantenermi [illegible] in seguito Sue notizie.

Molti cordiali saluti anche a Sua Moglie.

G.Natta

January 9, 1962

AIR MAIL

Mr. C. C. Deegan
Firestone Plastics Company
P. O. Box 690
Pottstown, Pennsylvania

Dear Mr. Deegan:

This is to confirm our telephone conversation of yesterday in which I told you that Dr. Natta will be unable to accept your Chapter's kind invitation to address your April 17th meeting because of serious illness. He had major surgery last summer, and only recently returned to his office at the Polytechnic Institute of Milan. His schedule is now a very limited one, and he must have occasional periods of rest, therefore, extended travel is completely out of the question.

You expressed the desire to send to Dr. Natta a copy of the proceedings on your meeting, and I am sure that he would be delighted to receive this from you. This material should be addressed as follows:

Dr. Giulio Natta
Director of the Institute of
Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milan, Italy

Dr. Natta was honored by your kind invitation, and expressed deep regret that he is unable to appear before the Philadelphia Chapter of the S.P.E.

Very truly yours,

PN/bd

Patricia Nowicki
Account Executive
Public Relations Department

CC: R. Lamma
Secretary to Prof. G. Natta
Milan, Italy

July 9, 1962

Dear Doctor Di Pietro:

I regret very much to hear that you are leaving Italy and will discontinue your work which you have carried out with enthusiasm and interest at our Institute.

It pleases me that your work has produced interesting results which brought to a joint publication. I take this opportunity to tell you that in the case you wished to continue later on in your research we would be glad to have you back with us.

In the case that you needed letters of reference for your chemical profession, please, remember that I would be most glad to do so, so that I will be able to point out what a good person you are, your fine qualities as a researcher and the good experience which you have acquired in the field of stereospecific polymerization at our Institute.

I regret that you are leaving Italy and are abandoning your work at our Institute: I formulate my best wishes for your chemical career and I hope that it will give you all the satisfactions you desire.

I take this opportunity to thank you for your help in some of the translations of scientific papers which were published in European and American Journals. I thank you also for your contribution in the correction of the manuscript on the Stereospecific Polymerization which will be published by the Pergamon Press, Oxford.

I remain,

Very affectionately yours,

Giulio Natta

Aug.30, 1962

Dr.Sataru Enomoto,
The University of Michigan,
Harrison M.Randall,
Laboratory of Physics,
Ann Arbor, Michigan (USA)

Dear Doctor Enomoto,

Excuse my delay in answering your letter of Aug.7 - due to my summer holidays.

Please, let me know when Dr. Asahina plans to come to Milan; in fact, my schedule foresees a great number of journeys out of town next September.

I would suggest you to call my secretary up on your arrival: she will tell you whether I am absent, and if so, she will arrange your visit to my Institute with some co-workers of mine, who speak English.

With my kindest regards.

G.Natta

Am

September 10, 1962

Dear Professor Natta:

It is with pleasure that I write to you upon my return to the United States. I hope that this letter finds you in good health after a pleasant, restful vacation.

I would like to take this opportunity to express my gratitude for the courtesies extended to me at your Institute. The experience obtained has been most valuble and enriching. I also enjoyed working with the chemists in your research laboratories.

I would like to ask you if the Pergamon Press book has been completed yet? I have extended your regards to Doctor Price who is leaving now for a six month tour of Japan. Most likely I shall leave the University of Pa. for an industrial position.

Again I thank you for your hospitality and wish you a pleasant academic year to come. I remain,

Truly yours,

Joseph DiRetis

Exide INDUSTRIAL DIVISION

The Electric Storage Battery Company

P. O. BOX 5723
RISING SUN & ADAMS AVENUE
PHILADELPHIA 20, PENNSYLVANIA

April 26, 1962

Dr. Giulio Natta
Director of the Institute of Industrial Chemistry
Polytechnic Institute of Milan
32 Piazza Leonardo DiVinci
Milan, Italy.

Dear Dr. Natta:

On April 17, the Philadelphia Section of the Society of Plastics Engineers sponsored a Regional Technical Conference on Polypropylene. We have been asked to send you a copy of the Preprint Book in which are all the papers which were presented at the Conference. We hope that you will find these to be of interest.

Very truly yours,

D. E. Mulford

D. E. Mulford
Retec Registration Chairman

DEM:VM

Enclosure

Cartelle

IL NUOVO CIMENTO
ORGANO DELLA SOCIETA' ITALIANA DI FISICA
Via Saldini 50 - MILANO - Tel. 292.178

Milano 23 Febbraio 1962

Chiar.mo Prof.
G. NATTA
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano

Chiarissimo Professore,

Le unisco copia della lettera che ho scritto al sig. Geil in merito al permesso di ristampa da lui richiesto.

Con i migliori saluti.

G. Germanà

G. Germanà

IL NUOVO CIMENTO
ORGANO DELLA SOCIETA' ITALIANA DI FISICA
Via Saldini 50 - MILANO - Tel. 292.178

Milano February 23, 1962

Mr. PHILLIP H. GEIL
c/o Res. Triangle Institute
Camille Dreyfus Lab.
P.O.B. 490
DURHAM, North Carolina (USA)

Dear Mr. Geil:

This letter is in reference to your request for permission to reprint some figures from papers published by prof. G.Natta in Nuovo Cimento and Supplemento.

Since prof. Natta is agreeable, we are glad to give you our permission as well, provided that proper acknowledgment is made in the book both to the authors and to the Journal.

Best regards.

Dr. G. Germanà
For the Editor

HILLS-McCANNA COMPANY

400 MAPLE AVENUE · CARPENTERSVILLE, ILLINOIS · HAZEL 6-4851

October 30, 1962

22 NOV 1962

881

Dr. Giulio Natta
Montecatini
Societa' Generale per L'Industria
Mineraria e Chimica
Milan, Italy

Dear Dr. Natta:

We have been reading U.S. Patent no. 3,050,503, issued August 21, 1962, with a great deal of interest, which describes the efforts of you and your co-workers in developing satisfactory chlorosulfonated elastomeric polymers, particularly of polymers of alpha olefins, higher than propylene.

We have been very active here in our laboratory, in evaluating, compounding, and development of the essentially saturated copolymers and terpolymers of ethylene-propylene, butene-1, etc., (including Dutral N) in corrosion resisting applications in the chemical process industry.

We are wondering at this time, whether it might be possible to obtain or purchase a small quantity of your experimental polymers for inclusion into our continuing program. The poly-alpha hexene and pentenes look particularly interesting, and we would be very happy to have the opportunity to compound and evaluate these polymers both physically and chemically, with an eye on practical applications in the field of general corrosion resistance. We, of course, would be most happy to keep you informed of our results.

Any consideration you can give to the above would be deeply appreciated. Thank you very much.

Respectfully yours,

HILLS McCANNA COMPANY

Wayne D. Hayes

Wayne D. Hayes
Plastics Engineer

WDH:dj

June 27, 1962

Dr.Satoru Enomoto,
c/o Harrison M.Randall,
Laboratory of Physics,
The University of Michigan, U.S.A
Ann Arbor

our ref.521/lv

Dear Doctor Enomoto:

I have received your letter of June 18, 1962, from which I hear that you will come to Milan on Sept.10, 1962.

Most probably, I shall have to go abroad from Sept.10 to 20. In any case, I will do my best to postpone my departure in order to be able to meet you, on Sept.10, in Milan. But, if I am absent, you can visit my Institute. You can discuss problems concerning I.R. methods with Prof.Mantica and Dr.Peraldo, the physical properties of high polymers with Prof.Danusso and Prof.Moraglio, and the structures of polymers with Dr.Allegra. If you are interested in other topics, my secretary, Dr.Lamma, or if she is absent, Dr.Vaccarini, will contact you with the most qualified persons in those fields.

Hoping to be able to meet you personally, I send you my kindest regards.

Sincerely yours,

G.Natta

May 30, 1962

Mr. Satoru Enomoto
Harrison M.Randall Lab. of Physics
The University of Michigan
Ann Arbor, Michigan,(USA) (

our ref.438/eg

Dear Mr. Enomoto:

I have received your letter of May 20, informing me that you will probably come here on September 11, 1962.

My laboratory is located in Milan, at the Polytechnic Institute, P.za Leonardo da Vinci 32, which is not far from the Milan Railway Station.

Sincerely yours,

G.NATTA

(Ha inviato riproduzione dei suoi lavori - farli vedere a chi ci prendere -) (cassetto dei rifiuti)

May 10, 1962

Dr.Sataru Enomoto,
The University of Michigan,
Harrison M. Randall Lab.of Physics
Ann Arbor, Michigan, U.S.A.

ref. 364/lv

Dear Doctor Enomoto,

With regard to your letter of April 22, 1962, concerning your planned visit to Milan, I wish to inform you that you can come and visit my Institute in September.

Please, let me know, when possible, further details about your schedule.

Sincerely yours,

G.Natta

5 ~~July~~ June, 1962

Mr. D.E.MULFORD
Exide Industrial Division
The Electric Storage Battery
P.O.Box 5723
Rising Sun & Adams Avenue
Philadelphia 20, Pennsylvania

our ref. 426/eg

Dear Mr. Mulford,

Thank you very much for kindly sending me the Preprint Book in which are printed all the papers presented at the Regional Technical Conference on Polypropylene.

I was interested in reading them.

Thanking you again, I send you my best regards.

G.NATTA

Interscience Publishers

A DIVISION OF JOHN WILEY & SONS, INC. NEW YORK LONDON
440 PARK AVENUE SOUTH, NEW YORK 16, N. Y. MU 9-7630 CABLE ADDRESS: JONWILE

Eric S. Proskauer, Vice President

April 19, 1962

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter of April 10th with regard to additional reprints of the paper "Nomenclature Dealing with Steric Regularity in High Polymers" by M. L. Huggins, G. Natta, V. Desreux and H. Mark, which appeared in the Journal of Polymer Science, Volume 56, issue 163, 1962.

Unfortunately, the type is always destroyed immediately after the issue is printed and it is therefore too late to make additional reprints. Dr. Huggins actually obtained 300 reprints plus 50 complimentary reprints and I feel that he should be willing to give you at least a quarter of these reprints. I'm sorry that he did not order a larger quanity of reprints so that you could have obtained the 200 reprints that you would like to have.

If Dr. Huggins cannot give you any additional reprints, we could of course prepare extra reprints for you by photo-offset, but this would run to approximately $60.00 for 200 reprints of this paper.

Will you please let me know whether you are able to obtain these reprints from Dr. Huggins.

With best personal regards,

Yours sincerely,

E. H. Immergut

E. H. Immergut
Editor

EHI:dh

ricupererai - Huggins ha inviato 50 estratti

Cable: INSCIENCE NEWYORK

INTERSCIENCE PUBLISHERS, INC.

250 FIFTH AVENUE, NEW YORK 1, N. Y.

LEXINGTON 2-1727

EXECUTIVE OFFICES

January 2, 1962.

Professor Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Professor Natta:

I learned with great pleasure that you have been awareded the first International Gold Medal of the Synthetic Rubber Industry which, in my opinion, is well deserved.

Perhaps the year 1962 will afford me an opportunity to get together with you, either in the United States or in Europe.

With kindest regards and best wishes for the New Year,

Very sincerely yours,

INTERSCIENCE PUBLISHERS, INC.

Eric S. Proskauer
Editor-in-Chief

ESP/rw

mynuziare

19th February 1960

Mr.Harry Burrell
Interchemical Corporation
Finishes Division
1754 Dana Avenue
Cincinnati 7, Ohio (U.S.A.)

Dear Sir,

According to your request of the following reprint: "Conformation of linear chains and their mode of packing in the crystal stat J.Polymer Sci.39, 29 51959), we are sorry to inform you that we have no available copies.

With best regards

Secretary to Prof.G.Natta

HARVARD UNIVERSITY

DEPARTMENT OF CHEMISTRY

12 Oxford Street
Cambridge 38, Massachusetts, U.S.A.

August 27, 1962

Professor Dr. G. Natta
Instituto di Chimica Industriale del Politecnico
Milano, Italy

Dear Professor Natta:

I should be greatly obliged if you could kindly take care of my wish of visiting you and your laboratory.

I received my Ph. D. for my work under Professor Ochiai at Tokyo University and am now working for Professor Woodward as post-doctoral research fellow. When I go back to Japan, I shall be one of the leaders at the basic research laboratory of Yawata Chemical Industry Co. which separated from Yawata Steel and Iron Co., the largest steel maker in Japan.

I have long admired your splendid achievements and found great interest in them. Since I plan to visit your city on my way home this autumn, I should very much like to see you at your laboratory.

I intend to be in Milano around Nov. 8th. If you could spare only a hour for my visit and let me know of the convenient date for you, I would make my schedule according to it.

I am looking forward to your favorable answer.

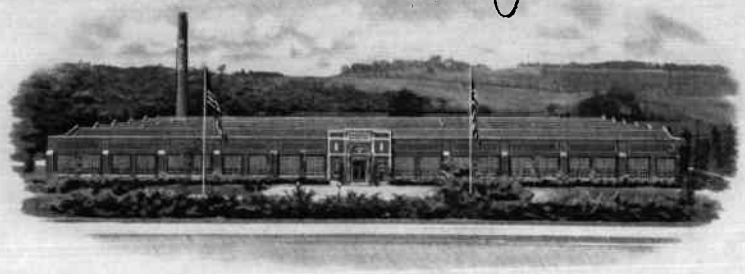
Yours very respectfully,

Yoshiro Kobayashi

(Yoshiro Kobayashi)

MACK PRINTING COMPANY
ESTABLISHED 1905

Am



PUBLICATIONS
SCIENTIFIC BOOKS
COMMERCIAL WORK
CATALOGS

OFFICE OF THE
VICE-PRESIDENT

EASTON, PA.

ANSWERING YOURS

SUBJECT:

January 19, 1962

G. Natta
Istituto Chimica Industriale
Polecnico-Piazza Leonardo da Vinci 32,
Milano, Italy

Dear Sir:

We are processing your order for 200 reprints without covers of your article "A New Coordination Type Around Fluorine Atom." This article appeardd in the December 20 issue of the JOURNAL OF THE AMERICAN CHEMICAL SOCIETY.

For all reprint orders that are shipped outside this country, it is necessaryfor us to have payment in advance. The total cost of your reprints, including shipping charges, is $6.90. Please send bank draft or postal money order -- UNESCO coupons not acceptable.

We are enclosing three (3) copies of our invoice requesting advance payment. Please return one (1) copy with your remittance.

Shipment of the reprints will be made two (2) weeks after receipt of payment.

Thank you.

Respectfully yours,

MACK PRINTING COMPANY

Joan Seip

(Miss) Joan Seip
Reprint Department

Inpsit
assegno N. 521

enclosure (3)

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

W. ALBERT NOYES, JR., *Editor*
MARSHALL GATES, *Ass't. Editor*

DEPARTMENT OF CHEMISTRY
UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER 20, NEW YORK

July 24, 1962

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

author: Natta
book review: Polyolefins. By Topchiev and Krentsel

Very many thanks for your letter of July 9 and your review of this book.

We have gone over your manuscript carefully with a view to improving the English idiom and have found that the changes are so extensive that we feel you should be given a chance to examine them before publication to make sure we have not altered your meaning. If you will read over the manuscript with its penciled suggestions and make any further corrections you wish, we shall be glad to proceed with the publication of the review.

Thank you very much.

Sincerely yours,

Marshall Gates

Marshall Gates
Assistant Editor

MG R

Enc.

Gentile Professore

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

December 14, 1962

Professor Giulio Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Allow me to extend my congratulations on your selection for the 1963 International Award in Plastic Science. The honor is abundantly deserved, and I am sure your colleagues in the macromolecular field, all of whom have the greatest admiration for your outstanding contributions, will respond with enthusiasm.

Those of us in this area are especially pleased that your designation for the award will bring you to California around the end of February. Could you possibly arrange to favor us with a seminar in the Department of Chemistry at Stanford? Our Departmental seminars are normally held at 4:00 P.M. on Monday. Both the 25th of February and the 4th of March are open dates at this time. If neither would suit your convenience, we could possibly arrange in this instance to shift the seminar to another day of the week. I hope you will find it possible to accept this invitation. The Department of Chemistry will be pleased to provide a modest honorarium.

Mrs. Flory joins in wishing you, Mrs. Natta, and your family a joyous Christmas season.

Sincerely,

P. J. Flory

P. J. Flory

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

Ans Flory

March 20, 1962

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALIA

Dear Professor Natta:

We are disappointed to learn that you will be unable to accept our invitation to extend your forthcoming trip to the United States so as to include a visit to this west coast area. I had heard of your illness some time ago but, upon learning that you may attend the Gordon Conference, I hoped that this would be an indication of your complete recovery. I am extremely sorry that you have not yet fully recovered.

I shall nevertheless hope to see you at the Gordon Conference.

With very best wishes to you and Mrs. Natta, I am

Sincerely,

P. J. Flory

P. J. Flory

May 25, 1962

Prof. E.L.Immergut
Interscience Publishers
440 Park Avenue South,
New York 16, N.Y. (USA)

our ref. 349/og

Dear Professor Immergut:

Thank you for your kind letter of April 19th, concerning the reprints of the paper: "Nomenclature Dealing with Steric Regularity in High Polymers".

I am glad to inform you that Dr.Huggins has kindly sent me 50 reprints of our paper. Thus extra reprints by photo-offset are not necessary.

Thanking you for your kindness, I send you my best regards,

Yours sincerely

G.NATTA

April 10, 1962

Prof. E.H. Immergut
Interscience Publishers
440 Park Avenue South
New York 16, N.Y. (USA)

Dear Professor Immergut:

To-day I have received from Prof. M. Huggins very few reprints of the paper :

"M.L. Huggins, G. Natta, V. Desreux and H. Mark - Report on Nomenclature Dealing with Steric Regularity in High Polymers" J. Polymer Sci. 56, 153 (1962)

If it is still possible, please send me 200 reprints of this Report, and invoice them to the "Istituto di Chimica Industriale - Politecnico - P.za L. da Vinci - Milano.

With my best thanks and kindest regards.

G. Natta

Jan. 31, 1962

Ans

Mr.Eric S.Proskauer, Editor-in-Chie
Interscience Publishers, Inc.,
250 Fifth Avenue,
New York 1, N.Y. (USA)

Dear Mr.Proskauer:

I wish to thank you very much for the kind words you expressed to me on the occasion of the Gold Medal of the Synthetic Rubber Industry.

Hoping to meet you, as you suggested, sometimes soon, I send you my best wishes and kindest regards.

Giulio Natta

GN/lv

Sept.9, 1962

Dr.Yoshire Kobayashi,
Harvard University,
Dept.of Chemistry,
12 Oxford Street,
Cambridge 38, Massachusetts

our ref.671/lv

Dear Doctor Kobayashi,

With regard to your letter of Aug.27, 1962, I wish to inform you that I am not sure to be in town on Nov.8, when you have scheduled to come to Milan. Therefore, on your arrival, please call my secretary up; thus your visit to my laboratories will be arranged either with me or with a co-worker of mine.

With my best regards.

G.Natta

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

February 20, 1962

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALIA

Dear Professor Natta:

Is it possible that you may come to the West Coast during your trip to the United States next summer? Various people in this area, including those at Stanford Research Institute, would be most interested in having you visit here. In any case, I shall look forward to seeing you at the Gordon Conference during the first week of July, and I hope that you will find it convenient to visit the Stanford area as well.

With very best wishes, I am

Sincerely,

P. J. Flory

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

February 13, 1962

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALIA

Dear Professor Natta:

Thank you very much for favoring me with a copy of your interesting paper on "Chromatographic Resolution of Linear Polymers of (R)(S)-4-Methyl-1-Hexene". This adds another to the outstanding achievements which you and your collaborators have carried forward during the past few years.

I shall look forward to seeing you at the Gordon Conference next summer.

With best regards, I am

Sincerely,

P. J. Flory

July 30, 1962

Mr.Marshall Gates, Ass't.Editor
Journal of the American Chem.Soc.
Dept.of Chemistry,
University of Rochester,
River Campus Station,
Rochester 20, New York (USA)

our ref.633/lv

author:Natta
book review: Polyolefins. By Topchiev and Krentsel

Dear Sir,

Your letter of July 24 arrived here just a short time after that Professor Natta had left Milan for summer holidays. Thus all the changes you did on Prof.Natta's review have been checked by one of his chief co-workers, who wishes to confirm you that the [redacted] not been altered and the language much improved.

Thanking you very much for your kind concern, we remain,

Very truly yours,

the secretary to

Prof.Natta

Encl/ 1 manuscript of the review

Dec.20, 1962

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (USA)

our ref.943/lv

Dear Professor Flory:

Thank you very much for your kind letter of Dec.14,1962 and for kindly inviting me to give a seminar in the Department of Chemistry at Stanford University.

I mostly regret not to be able to accept it, owing to my state of health that has compelled me to reduce considerably my work, apart from the research I follow in my Institute. It will be hard enough for me to come to Los Angeles and deliver my award lecture. In fact, I suffer from the Parkinson illness, which hinders my motions, especially my walking. Even if I was operated on about one year ago, and the left side of my body has improved considerably, I should be operated on the other side of my brain, in order to recover completely. But some physicians discourage me from doing so, fearing complications.

I am very sorry I cannot accept your invitation, but I hope I shall meet you soon all the same. If the opportunity arises for you to come to Europe, I hope you will come to Milan and give a seminar, for instance in the field of elastomers.

Thank you very much again and accept, together with your family, best wishes and kindest regards.

Giulio Natta

March 8, 1962

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (USA)

our ref.160/lv

Dear Professor Flory:

Thank you very much for your kind letter of Feb.13 and 20 and for inviting me to come to the West Coast during my trip to the United States. Unfortunately I suppose that I will not be able to accept your kind invitation. It was my desire to participate in the Gordon Conference next July, but still I do not know whether my state of health allows me to.

As you probably know I underwent an operation for Parkinson's in Paris last July. Even if my health has been gradually improving, the physicians advise me not to work too hard: this is why my participation in the Gordon Conference is uncertain. If I have to give up the pleasure of coming, I would like to have my communication read by one of my best co-workers, namely Prof.Mario Farina, if he is allowed to come instead of myself, or else by Prof.P.Pino, who will certainly participate in the Gordon Conference.

With my kindest regards, I am

Sincerely

G.Natta

MONTECATINI
SERVIZIO BREVETTI

Sede, 7 gennaio 1963

Gentile
Dr. R. Lamma
Ist.Chim.Ind.
POLITECNICO di
M i l a n o

RP/cg

Lettera M.P. Thorne.

Con riferimento alla Sua del 21.XII.1962, Le confermo che a mio avviso la risposta preparata può essere inviata.

Nella quarta riga si dovrà dire : "LiC_4H_9-violet $TiCl_3$".

Distinti saluti.

(R. Pirani)

Dec.20, 1962
Spoliti 8/1/63

Dr.Melanie P.Thorne,
Assistant Research Associate,
Dept.of Chemistry,
Ontario Research Foundation,
43 Queen's Park,
Toronto 5 (Canada)

our ref.935/lv

Dear Doctor Thorne:

With regard to your letter of Dec.11, I wish to inform you that in the course of our research, we carried out various polymerizations of propylene in the presence of the catalytic system violet LiC_4H_9-$TiCl_3$.

Without searching into the reaction between the compounds of the catalytic system, we observed that the catalytic activity depends on the Li/Ti ratio. The best results were obtained by us by operating with a ratio Li/Ti $\simeq$ 1. By operating with ratios higher than 2, the systems are inactive. In any case, the polymerization rates obtained were low.

I remind you that the activity of these catalytic systems depends very much also on the type of violet $TiCl_3$ used and on its subdivision state.

With this regard, I herewith enclose a reprint of a paper of ours in which the results obtained with the violet AlR_2X-$TiCl_3$ system are described.

Sincerely yours,

Giulio Natta

Encl/

ONTARIO RESEARCH FOUNDATION

43 QUEEN'S PARK, TORONTO 5

CANADA

AIR MAIL LETTER

Pasquier

December 11, 1962

Professor G. Natta,
Institute di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci,
Milano,
ITALY.

935

Dear Professor Natta,

I have read your paper in Rend. Acc. Naz. Lincei (8) 28 539 1961 in which you mention that you obtained syndiotactic polypropylene by use of a lithium butyl-titanium trichloride catalyst. This fact was of particular interest to me, as I have been unable to obtain polymers from ethylene or butene-1 when using a lithium butyl-titanium trichloride catalyst.

In the work carried out in this laboratory the catalysts were prepared at room temperature and the polymerisation experiments carried out in heptane solution at temperatures in the range 25 - 80°C. In no case was any polymer produced. In addition we found, by x-ray analysis, that the reaction between the two catalyst components yielded a compound having a cubic lattice structure and which we consider to be a mixed chloride of the formula $(LiCl)_n TiCl_x$ where x is probably 1 or 2. These results have been reported in the Canadian Journal of Chemistry (1960).

I would very much appreciate it if you could let me have some details as to the experimental conditions which were used in your laboratories to obtain polypropylene with the aid of this particular catalyst.

My interest in this matter is purely academic and is related to the experimental work I have carried out as a basis for a thesis in candidature for the Ph.D. degree of London University.

Yours faithfully,

Melanie P. Thorne

MPT:jl

Melanie P. Thorne,
Assistant Research Associate,
Department of Chemistry.

21.12.62

Egr. Dott. G. Pirelli
Direzione BREV
Soc. Montecatini
Sede

Egregio Dottore,

Le allego ~~la~~ la lettera che abbiamo ricevuto e copia della risposta che penseremo di inviare, con preghiera di dirci il Suo parere in proposito, con cortese sollecitudine.

Distinti saluti.

(Segreteria Prof. Natta)

30 ottobre 1962

Dr.James D. Grossman,
Philip Morris
Research Center,
P.O.Box 3 D,
Richmond 6, VA.

our ref.789/lv
your letter: Oct.3, JDG:Mro

Dear Doctor Grossman,

I regret to inform you that I cannot send you the samples of high-cis-1,4-content polyisoprene because, at this moment, we do not have this product at our disposal.

At present, our main research works deal with butadiene and other homologous, such as 1-methyl= butadiene, while we do not work any longer on the isoprene polymers.

With kind regards.

G.Natta

NEW YORK · RICHMOND · LOUISVILLE
LONDON · MELBOURNE

PHILIP MORRIS

INCORPORATED

Research Center

P. O. Box 3D Richmond 6, Va.

CABLE ADDRESS: POLD NEW YORK
PHONE BELMONT 3-9251

October 3, 1962

Prof. G. Natta
Politecnico
Milano, Italy

Dear Prof. Natta:

It would be most appreciated if you could supply us with a small amount of synthetic, low molecular weight poly-cis-isoprene unvulcanized.

Thanking you.

Cordially,

James D. Grossman

James D. Grossman
Research Chemist

JDG:mro

Porri dice di informarlo che non ci siamo mai interessati della preparazione del poli-isoprene nuovo di pacca in laboratorio —

WHITEHALL 4-4850

WALTER J. PODBIELNIAK Ph.D.

RESEARCH CHEMICAL ENGINEER

LAKE SHORE CLUB
SUITE 1016 - 1017
850 LAKE SHORE DRIVE
CHICAGO 11, ILLINOIS

November 30, 1962

Prof. G. Natta
Instituto Chimica Industriale Politecnico
32 Piazza Leonard Da Vinci
Milano, Italy

Dear Mr. Natta:

This is to advise that as of October 1, 1962, my status at Podbielniak, Inc. has changed from that of president to consultant.

The purpose of the change was to relieve me of administrative duties, now capably handled by my associates at Podbielniak, Inc., and to enable me to concentrate on research and development. I hope thereby to be of more service to Podbielniak, Inc. I also plan to reserve more time for personal relaxation and possibly for other consulting services within my field of specialization.

Under this new arrangement, I expect to be doing considerable traveling, in the course of which I hope I may have the opportunity to visit you to renew acquaintance, or in case I can be of service.

At this time, I also wish you a Merry Christmas and a Happy New Year.

Sincerely,

Walter J. Podbielniak

Walter J. Podbielniak

WJP:ac

Podbielniak, Inc.
Division of Dresser Industries, Inc.
3201 N. Wolf Road
Franklin Park, Illinois

Phone: 451-2900

ringraziare e ricambiare auguri

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

August 23, 1962

Professor Dott. Ing. Giulio Natta
Direttore dell'Instituto di Chimica
Industriale del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta,

Permit me to take this opportunity to introduce to you Dr. J. Vernon Steinle who is Vice President of Research & Development of S. C. Johnson & Sons, Inc. in Racine, Wisconsin.

My good friend, Dr. Steinle, will be in Milan during the early part of October. Inasmuch as his company has very large installations in the Common Market, he would like to discuss certain problems of mutual interest.

If you will be in Milan at this time, I think that you might find it interesting to meet with Dr. Steinle.

With warmest personal regards, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:fc

INGRAM-BLOCH CORPORATION
30 EAST 42ND STREET • NEW YORK 17, N.Y. • MURRAY HILL 7-8940
CABLE USINGRAM NEWYORK • TWX NUMBER NY1-4395

September 18, 1962

Professor G. Natta
Istituto Di Chimica Industriale
Del Politechnico
Piazza Leonardo Da Vinci
Milan 32, Italy

Dear Professor Natta:

Further to the introduction of Professor Mark, concerning Dr. J. Vernon Steinle, Research and Development Vice President of S. C. Johnson & Son, Inc., Racine, Wisconsin, which was the subject of Dr. Mark's letter to you of August 23rd and your reply to Dr. Mark of August 30th, it was felt that you would perhaps like to know a little more about the S. C. Johnson organization and I, therefore, enclose a brochure concerning this international company.

Sincerely,

Maurycy Bloch
President

mb/rb
encl.

SAMUEL E. DARBY (1867-1936)
WALTER A. DARBY (1869-1949)
SAMUEL E. DARBY, JR. (1891-1947)

LOUIS D. FLETCHER
FLOYD H. CREWS
DONALD J. OVEROCKER
HARVEY W. MORTIMER
MORRIS RELSON

ROBERT A. MAIKIS
ROBERT R. KEEGAN
HOWARD C. MISKIN
GORDON D. COPLEIN
WILLIAM F. DUDINE, JR.

DARBY & DARBY
ATTORNEYS AND COUNSELORS AT LAW
PATENTS AND TRADE MARKS
CHRYSLER BUILDING
405 LEXINGTON AVENUE
NEW YORK 17, N. Y.

CABLE ADDRESS: YBRAD, NEW YORK
TELEPHONE OXFORD 7-7660 7661 7662 7663 7664 7665

May 23, 1962

(28/5/62
copia a Dr. Piraino)

AIR MAIL

Montecatini
Brevetti
Largo Guido Donegani, 1-2
Milan, Italy

30 MAG 1962
R 2084

30 MAG 1962

Re: Symposium on Definitions of Macromolecular Substances Conducted by Dr. Herman Mark

Gentlemen:

As you know, this firm has long known Dr. Herman Mark. Several years ago he served as patent expert in a case against us. Last year he served as a patent expert for us in a different case.

Last March, Dr. Mark asked Mr. Crews of this firm whether this firm would like to send a representative to a day-long session on the above subject. Mr. Crews said we would.

The date is now firmly established for Wednesday, June 13, at Brooklyn Polytechnic Institute.

I am enclosing a copy of the confirmation of the invitation, a list of participants and a memorandum on the subject.

I plan to attend. I am particularly interested in hearing the views of those companies who are opponents in the interferences including Du Pont, Esso, Hercules, Interchemical and Monsanto.

Incidentally, the Arthur, Dry, et al. firm is counsel for U.S. Rubber and is my former law firm.

I shall of course listen with great interest to the views expressed by the participants and shall report to you anything of significance.

Are there any points or points of view which you desire me to express on your behalf? If there are, please let me know, and also advise whether you want the views expressed by me personally as an attorney, or as your respresentative, or both. I am not planning to attend the meeting overtly as your representative but will be guided of course by your views in the matter.

Piraino veda di far intervenire anche Ottolenghi e la Peak e documentandosi prima su rapporti Hellpitz e simposio settembre 62 Francoforte (Hoechst)

If someone from your organization desires to attend, let me know by cable and I shall ask Dr. Mark to include him.

Cordially,

Harvey W. Mortimer

HWM:PV
Encs.

cc: Air mail in 2 days with enclosures.

cc: Dr. Ottolenghi, N.Y.
(with enclosure)

May 18, 1962

Mr. Floyd H. Crews
Darby & Darby
New York 17, N. Y.

Dear Mr. Crews:

Please permit me to report to you that there seems to be considerable interest in the proposal which I submitted to you in my memorandum concerning the characterization of macromolecular substances. As a consequence, I feel justified to go ahead with a small symposium on June 13, 1962 and I should like to extend to you a cordial invitation to attend and to contribute to the discussion in any way you choose.

May I suggest that we meet on June 13, 1962 at 10:00 A.M. in Room 739 at the Polytechnic Institute of Brooklyn, 333 Jay Street, Brooklyn 1, New York, where I shall take the liberty to welcome the representatives of the various organizations. Then, at 10:15 A.M., Dr. Hellfritz will give us an expose of his ideas and proposals, which will probably take about one hour. After that, at about 11:15 A.M. we can enter a general discussion of the problem. At 12:30 P.M. we shall have a simple luncheon ready at the Institute for the members of the Conference and we can resume our discussion between 1:30 and 2:00 P.M. for another hour or so.

Needless to say that it will be a pleasure for us and the members of our staff to show you around our Institute after the adjournment of the meeting if you should be interested in a short tour through the laboratories.

I am attaching a list of all those to whom this letter is being sent to give to each of the interested experts an idea of whom he can expect to meet at this conference.

Thanking you for your interest and looking forward to seeing you, I am, with kindest regards,

Very sincerely yours,

H. Mark

H. Mark

COMPANIES

Amoco Chemicals Corporation
Bell Telephone Laboratories
Cabot Corporation
Continental Can Corporation
E. I. DuPont de Nemours & Co., Inc.
Esso Research & Engineering Company
General Electric Company
Hercules Powder Company
Interchemical Corporation
Monsanto Chemical Company
Rohm & Haas Company
United States Rubber Company

LAW OFFICES

Arthur, Dry, Kalish, Taylor & Wood
Darby & Darby
Irons, Birch, Swindler & McKie
Kinney, Carpenter, Abbot, & Coulter

manca Standard of Indiana
e Phillips
e Avisun
e Shell

January 9, 1962

Professor Dott. Ing. Giulio Natta
Direttore Dell 'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Please permit me to enclose the news release of the First S.P.E. International Award. As you can see, Dr. Herman Mark is to be the recipient of this honor in Pittsburgh on January 31 - February 1, 1962.

Very sincerely yours,

Sheldon M. Atlas

Sheldon M. Atlas

DEPARTMENT OF CHEMISTRY

May 28, 1962

Dr. G. Natta
Istituto di Chemica Industriale
del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

My most gracious thanks to you and Mrs. Natta for a very nice visit. I enjoyed seeing your new institute and having the opportunity to lecture before your large and vigorous group. It was good to see that you have improved physically and continue to work on your new problems.

Please give my very best to your charming wife, and also my best regards to Dr. Danusso.

With kindest regards,

Sincerely,

C. G. Overberger, Head
Department of Chemistry

CGO:g

P. S. Don't forget to write about the plans of Farina.

Dec.19, 1962

Dr.W.J.Podbielniak,
Podbielniak, Inc.,
Division of Dresser Industries, In
3201 N.Wolf Road,
Franklin Park, Illinois (USA)

Dear Doctor Podbielniak,

Thank you for your letter of Nov.30.
If you come to Milan during the traveling you expect you will do under your new arrangement, I shall be glad to meet you again.

I sincerely reciprocate best wishes for Christmas and the New Year.

Sincerely,

Giulio Natta

Aug.30, 1962

Prof.H.Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn I, New York (USA)

our ref.657/lv

Dear Professor Mark,

Thank you for your letter of Aug.23, 1962. Considering your introduction, I shall be glad to meet Dr.Steinle next October, if I am in Milan on the day of his coming.

Rosita joins me in sending you and Mimi, kindest regards.

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

OFFICE OF THE DEAN OF THE FACULTY

February 16, 1962

Prof. Dott. Ing. Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

My dear Professor Natta:

Permit me to thank you very much for your kind and flattering telegram of January 30 and letter of January 31, 1962.

Please be assured that I am greatly honored by this award and by your good wishes.

With kindest personal regards and very best wishes to you and Rosita, I am

Very sincerely yours,

H. Mark

H. Mark

HM:hg

DEPARTMENT OF CHEMISTRY

March 27, 1962

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32 - Milano
Italy

269

Dear Professor Natta:

Thank you for your letter of March 20th concerning my proposed visit to Milan. I am extremely sorry that you will not be at the Institute on May 25, 1962, however, I will be attending the "Conference on Stereospecificity of the High Polymer Group" at Moretonhampstead in May also, and will have an opportunity to talk with you there.

I would like to present a lecture at your institute on May 25th as you suggest. Please let me know who to contact when I arrive - I will plan on being there around noon and will plan to talk at 5:00 p.m.

Could your office kindly make good hotel reservations for me for the nights of May 24th and May 25th?

Hamin 667251

"The title of my talk will be "Polymers with Mercaptan Side Chains".

With kindest regards,

Sincerely,

C. G. Overberger, Head
Department of Chemistry

sì — singole con bagno

CGO:g

DEPARTMENT OF CHEMISTRY

March 7, 1962

Professor Giulio Natta
Instituto di Chimica
Piazza Leonard Da Vince, 32
Milano, Italy

204

Dear Professor Natta:

I am planning to be in Italy the week of May 20th, and would welcome an opportunity to visit your institute and present a lecture on Friday, May 25th.

It certainly will be a pleasure to see you and Mrs. Natta again, and I am looking forward to hearing from you.

With kindest regards,

Sincerely,

C. G. Overberger, Head
Department of Chemistry

CGO:g

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 490
DURHAM, NORTH CAROLINA
Camille Dreyfus Laboratory

February 13, 1962

132

Prof. G. Natta
Institute di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

I am preparing a manuscript on "Polymer Morphology" to be published by Interscience Publishers, Inc., in their "Polymer Reviews" series. The introductory chapter will include descriptions of the configuration, conformation and molecular packing, as known, for all the polymers discussed in later chapters of the book.

I would greatly appreciate receiving permission to include the following figures from papers you have published:

Figures 13, 21, 23, and 25 from G. Natta and P. Corradini, Nuovo Cimento, Suppl. to Vol. 15., 1, 9 (1960).

Figures 7 and 11 from G. Natta, P. Corradini and I. W. Bassi, Nuovo Cimento, Suppl. to Vol. 15., 1, 52 (1960).

Figures 8 and 10 from G. Natta and P. Corradini, Nuovo Cimento, Suppl. to Vol. 15., 1, 40, (1960).

Figures 3 and 11, from G. Natta, P. Corradini and I. W. Bassi, Nuovo Cimento, Suppl. to Vol. 15., 1, 69 (1960).

Dr. Peterlin sends greetings.

Very truly yours,

Phillip H. Geil

PHG:bb

Phillip H. Geil

St. Louis Surgical Supply Co.

Instruments *Medical Supplies* *Drugs*

112 VLASIS DR. BALLWIN
ST. LOUIS, MISSOURI

CA 7-5477

January 15, 1962

Instituto di Chimica,
Industriale del Politecnico
Piazzo Leonardi de Vinci
Milano, Italy

Gentlemen:

Our bank has given us your name, from trade sources, as being manufacturers and exporters of Tetracycline.

We are primarily interested as a prospective distributor or dealer in the St. Louis area.

In the event you are interested in locating a reliable dealer in this area, you will find us well-rated in trade sources and we have the best of bank references, although all of our purchases are by irrevocable letters of credit.

Please forward full information of your products, including catalogues and prices.

Very truly yours,

D. J. Barnhill

D. J. Barnhill,
Purchasing Agent

DJB:jr

Jan.26, 1962

Prof.F.Eirich,
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn 1, N.Y. (U.S.A.)

Dear Professor Eirich:

Thank you very much for your kind wishes, which arrived here a few days ago, and which I heartily reciprocate.

Kindest regards,

G.Natta

Nov.28, 1961

Prof.H.Mark,
Polytechnic Institute of
Brooklyn,
333, Jay Street,
Brooklyn 1, New York (USA)

Dear Professor Mark:

I wish to express you my sincerest thanks for your kindness in sending to me the leather-bound June issue of the Journal of Polymer Science. I appreciate it very much indeed, and thank you for your kind thought.

Accept my kindest regards.

G.Natta

Ann
Telegr Brooklyn

May 18, 1962

Prof. Overberger
C/o Hotel Manin
Via Manin
Milano

Dear Professor Overberger:

Further to the correspondence kept with Prof.Natta, we wish to confirm you that your lecture at this Institute : "Polymers with Mercaptan Side Chain" has been fixed for 5 p.m., May 25, 1962.

Therefore we shall wait for you in the afternoon of May 25, at the time that most suits you.

With kindest regards.

The Secretary to Prof.Natta

April 18, 1962

Prof.C.G.Overberger, Head
Dept.of Chemistry,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1 - New York (USA)

our ref.269/lv

Dear Professor Overberger:

Thank you for your letter of March 27.
I was glad to learn that you will attend the "Conference on Stereospecificity of the High Polymer Group" at Moretonhampstead. I shall be delighted to meet you there. After that, I hope to be back to Milan before May 25 in order to be able to attend the lecture you will deliver at my Institute.

According to your desire, my office has booked a single-room with bathroom for you at the "Hotel Manin", Via Manin - Milano -

With kindest regards to you and to Mrs.Overberger,

Sincerely,

G.Natta

Danusso - Il Prof. Natta desidererebbe che lei si occupasse degli inviti per la Conferenza di Overberger (che si terrà in Italia e non alla Soc. Chimica) ~~poi~~ parlandone con il Dr Satta -

Concordato inviti con Dr. Satta e partecipazione Società Chimica (17/5/62) Danusso

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

May 15, 1962
Ref: 404511

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinco, 32
Milano, Italy

Dear Professor Natta:

Under separate cover we are sending you 50 reprints of our Nomenclature Report. Please accept these with our compliments. I am sorry that I did not specifically ask the Journal of Polymer Science to give you a chance to order reprints before they destroyed the type. I had assumed that they would of course do so, without my requesting it.

My wife joins me in sending best wishes to you and your wife. We hope that you are rapidly regaining your health. Please remember me also to your colleagues in your institute.

Sincerely,

Maurice L. Huggins

Maurice L. Huggins
Senior Research Scientist

MLH:vw

Molto gentile
grazie

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

May 7, 1962
408511

Professor G. Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your kind note of April 10. If the Journal of Polymer Science cannot send you reprints of our Report on Nomenclature, I shall be glad to send you some more from our supply. Let me know if you need them and I shall see how many we can spare.

With best regards, to your wife and your associates, as well as yourself,

Cordially yours,

Maurice L. Huggins

Maurice L. Huggins
Senior Research Scientist

MLH:vw

almeno 30 estratti
di articolo
parte della spesa
che lei ha avuto
per esso

March 20, 1962

Professor C.G.Overberger,
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York (USA)

our ref. 204/eg

Dear Mr. Overberger :

With regard to your kind letter of March 7, I regret to inform you that I shall be first in England and then in Paris from May 14 to the end of May. Therefore, it will be impossible for me to meet you in Milan on May 25.

However, if you do not mind, you can present a lecture at the Polytechnic Institute, even during my absence. Please, let me know the subject-matter of your lecture; thus I will be able to have the invitations printed well in advance. I would suggest you to deliver your lecture at 5 p.m.

Hoping that another opportunity arises in the near future to meet you, I send you my kindest regards.

G.NATTA

Feb.19, 1962

Mr.Phillip H.Geil,
Research Triangle Institute,
Post Office Box 490
Durham, North Carolina
Camille Dreyfus Lab.

our ref.132/lv

cc : Direzione
Nuovo Cimento
Via Saldini 50 - Milano

Dear Mr.Geil:

With regard to your letter of Feb.13, I give you permission to publish the figures from papers of ours appeared in Nuovo Cimento, if, in each figure, you quote both author and original journal.

I have forwarded a copy of your letter to the Direction of Nuovo Cimento, in order to obtain their permission as well.

I kindly reciprocate the greeting to Dr.Peterlin.

With my kindest regards,

G.Natta

NHOLD PUBLISHING CORPORATION

430 PARK AVENUE
NEW YORK 22, N. Y.
MUrray Hill 8-8600

September 15, 1959

Dr. Guilio Natta
Milan Polytechnic Institute
Milan, Italy

Dear Dr. Natta:

Mr. Herbert R. Simonds and Reinhold Publishing Corporation are pleased to inform you that the first volume in the periodic series, SOURCE BOOK OF THE NEW PLASTICS, has just been published and that a complimentary copy was sent to you today.

Your splendid cooperation and encouragement, which helped make this book possible, are gratefully acknowledged.

Sincerely yours,

Joseph McKible

Joseph McKible
Sales Mgr. Technical Books

JMcK:as

June 11, 1962

Mr. George E. Ham,
Spencer Chemical Company,
Research Center,
9009 West 67th Street,
Merriam, Kansas (U.S.A.)

Dear Mr. Ham,

Please, accept our apologies for not having given you further information on the writing of the chapter concerning the ethylene-propylene copolymers.

During this period we have been very busy and had to participate in the Paris and London Congresses on rubbers.

We believe that the chapter:

" Ethylene-Propylene Copolymers as Rubbers with Special Emphasis on Incorporation of Vulcanisable Groups"

will be sent to you within next August.

From your letter of May 17, 1962, we noticed that you also desire a chapter entitled:

" Other α-Olefin Copolymers".

As you probably remember, this chapter was not foreseen in the letter of Dec. 28. If this chapter comprises only the copolymers of higher olefins within themselves (e.g. propylene and butene), I think that instead of compiling a separate chapter, it would be preferable to include a short paragraph of it at the end of the chapter dealing with the ethylene and propylene copolymers.

I would mostly appreciate hearing from you concerning this particular matter.

Accept my kindest regards.

Giorgio Mazzanti

GM/lv

Jan.26, 1962

Mr.D.J.Barnhill, Purchasing Agen
St.Louis Surgical Supply, Co.,
112 Vlasis Dr.Ballwin,
St.Louis, Missouri (USA)

your ref. CA 7-5477
our ref. 37/lv

Gentleman:

With regard to your letter dated Jan.15, 1962, I am sorry to inform you that we neither produce nor export Tetracycline. In fact, this is a University Institute.

Very truly yours,

Prof.G.Natta

STATE UNIVERSITY COLLEGE OF FORESTRY

AT SYRACUSE UNIVERSITY

SYRACUSE 10, NEW YORK

16 October 1962

Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Plazza Leonardo Da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Enclosed is a copy of a manuscript which I hope will be of interest to you. This paper is scheduled to appear in Volume II of Progress of Chemical Kinetics.

With best regards,

Yours very sincerely,

Michael Szwarc

Michael Szwarc
Research Professor

Passo non restituire e riferire

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

January 26, 1962

Dear Member:

As you may have read, a case of mistaken identity led to an individual being notified of his election as a Fellow of The Academy who was not worthy of the honor.

The Scientific Council has now determined the circumstances in which the error occurred, and taken steps to preclude a recurrence. We deeply regret the embarrassment in which this incident has involved certain distinguished members and individuals associated with The Academy.

This person has been advised that the honor has been withdrawn, and upon investigation of his record that he is not eligible for Membership in The Academy. His membership in The Academy is being terminated in accordance with the Bylaws. I trust that this unfortunate episode will now become a minor footnote to the fallibility of human systems in the history of The Academy.

Most cordially yours,

Eunice Thomas Miner

Executive Director

UNIVERSITY OF ILLINOIS
Department of
CHEMISTRY AND CHEMICAL ENGINEERING
URBANA

Urbana, 24 Agosto 1962

The William Albert Noyes Laboratory

Prof. Giulio Natta

Istituto di Chimica Industriale

del Politecnico

Piazza Leonardo da Vinci 32

Milano

Egregio Prof. Natta,

la Prof.ssa Bergamini dell'Istituto di Chimica Analitica dell'Universita' di Firenze mi ha gentilmente passato la Sua lettera e colgo l'occasione per ringraziarLa vivamente del Suo interessamento nei miei riguardi presso l'Istituto Ricerche Industriali della Societa' Montecatini.

Ho gia' preso contatti con l'Ufficio Personale Montecatini e sarebbe mio vivo desiderio potere entrare a far parte e collaborare con codesto Gruppo al mio ritorno in Italia.

Sto' continuando tutt'ora il mio lavoro di ricerca sulla chimica dello Solfo-Azoto presso il Dipartimento di Chimica Inorganica dell'Universita' dell'Illinois in attesa della mia partenza per l'Italia che avverra' ai primi di Febbraio 1963.

Ringraziandola ancora vivamente

Distinti Saluti

Antonio Vandi

Antonio Vandi

Research Associate in Chemistry

MITSUI & CO., LTD.
IMPORTERS AND EXPORTERS
530 FIFTH AVENUE
NEW YORK 36, N. Y.
U. S. A.

HEAD OFFICE:
TOKYO, JAPAN

TELEPHONE:
YUKON 6-9600
TWX NY 1-101
TWX NY 1-4161

CABLE ADDRESS
"MITSUI NEWYORK"
RCA TELEX NO.
NY 2613

MACKAY TELEX NO.
NY 0153

October 10, 1962

Dr. G. Natta
University of Milan
Milan, Italy

Dear Dr. Natta:

In the May 1962 RUBBER AGE there appeared an article on the Gordon Conference on Elastomers held July 16 to 20 at Colby Junior College, New London, New Hampshire.

At this conference you presented "New Polymers and Copolymers with Elastomeric Properties". As we are very interested in this, we would appreciate your sending us a copy of the report if available.

Looking forward to hearing from you, we remain,

Very truly yours,

MITSUI & CO., LTD.

K. Yamashita

K. Yamashita
Technical Consulting & Development
New York Representative

KY:lp

John Wiley & Sons, Inc. NEW YORK LONDON

440 PARK AVENUE SOUTH
NEW YORK 16, N. Y.
MURRAY HILL 9-7630

INTERSCIENCE DIVISION

MARKETING DIVISION
A. H. NEILLY, JR.
VICE-PRESIDENT

February, 1962

TO: THE MEMBERS OF THE ADVISORY BOARD

At the suggestion of some of our editors, we are sending you the enclosed list of our 1961 subscribers. We hope this information will be of interest.

Any comments you may wish to make will be greatly appreciated. If you find certain important industrial and academic institutions missing from the list, we would be grateful for your assistance in bringing these to our attention.

Sincerely yours,

M Orlando

(Mrs.) M. Orlando, Manager
Market Development

MO:eg

THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PENNSYLVANIA

COLLEGE OF CHEMISTRY AND PHYSICS
DEPARTMENT OF PHYSICS
OSMOND LABORATORY

August 6, 1962

Ing Lombardi
è all'estero - tornerà verso il 15/9

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Dr. Natta:

During the period September 1962-August 1963 I plan to be at Queen Mary College, London, England on a Guggenheim Fellowship, and during my stay there I would like to visit with you and your colleagues at Milano to discuss subjects of mutual interest. I an tentatively planning a 2-3 week trip to the continent sometime in late October to early November 1962 and would like to visit you then, if convenient.

If there is any interest in your laboratories or in nearby industrial laboratories in my presenting one or more lectures on my research, I would be willing to do so. For that reason I am enclosing a list of my recent publications and current research interests.

Looking forward to your reply, I am,

Sincerely yours,

Arthur E. Woodward

Arthur E. Woodward
Associate Professor

AEW/11

Enclosure

Sentire Lombardi se merita di invitare a fare conferenza a Milano? Si risponderà poi — di settembre.

May 24, 1962

Prof.M.L.Huggins,
Senior Research Scientist,
Stanford Research Institute,
Menlo Park, California (USA)

your ref.404511
our ref. 424/lv

Dear Professor Huggins:

Thank you very much for your kind letter of May 15, and for kindly sending me 50 reprints of our Nomenclature Report, which arrived here a few days ago.

I mostly apologize for the trouble I gave you, and I sincerely thank you for your kindness.

My wife joins me in sending you and Mrs.Huggins kindest regards.

Sincerely,

Giulio Natta

May 11, 1962

Prof.Maurice L. Huggins,
Stanford Research Institute,
Menlo Park, California (USA)

your ref. 408511
our ref. 399/lv

Dear Professor Huggins:

Thank you very much for your kind letter of May 7, 1962, concerning the reprints of the paper "Nomenclature Dealing with Steric Regularity in High Polymers.

Dr.Immergut already communicated to me that he cannot print additional reprints because the type was destroyed immediately after the issue was printed.

Therefore, I would be greatly grateful to you if you send me at least 30 reprints. Please, charge me with part of the expenses you incurred for those reprints.

Thanking you in advance, I send you my kindest regards.

Giulio Natta

April 10,1962

Prof. M.L.Huggins
Stanford Research Institute
Menlo Park - California (USA)

Dear Professor Huggins :

Thank you very much for kindly sending me the reprints of the Report on Nomenclature.

I have written to Immergut to-day asking him for 200 reprints of the Report to be invoiced to my Institute. I hope that the Journal of Polymer Science can grant my request. Otherwise, could you please send me a few more copies, provided that you have got a few spare ones?

Thank you very much again, and accept my kindest regards.

G.NATTA

Nov.9, 1962

Prof.Michael Szwarc,
State University College of Fores
at Syracuse University,
Syracuse 10, New York (USA)

our ref.840/lv

Dear Professor Szwarc:

Thank you very much for your letter of Oct.16, 1962 and for the copy of the paper enclosed, which reached me only yesterday. I will read it with much interest in the next few days.

Thank you very much again, and accept my kindest regards.

Giulio Natta

Oct. 23, 1962

Dr.K. Yamashita,
Technical Consulting & Development
New York Representative,
Mitsui & Co., Ltd.
530 Fifth Avenue,
New York 36, New York (USA)

Dear Doctor Yamashita:

With regard to your request of my lecture "New Polymers and Copolymers with Elastomeric Properties", presented at the Gordon Conference on Elastomers, I regret to inform you that lectures presented at that Conference are never published. Therefore no reprints are available.

To make up for it, as soon as available, I shall send you a reprint of the lecture presented at the Conférence Internationale du Caoutchouc (Paris 1962), which deals with the same subject.

With my best regards.

Giulio Natta

632

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

PITTSBURGH RESEARCH CENTER

4800 FORBES AVENUE
PITTSBURGH 13, PENNSYLVANIA

March 28, 1962

Dr. R. Ercoli
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

290

Dear Dr. Ercoli:

This letter is just to let you know that you will shortly receive contracts from Interscience Publishers to cover the chapter you are writing with Dr. Calderazzo and Dr. Natta. All authors will receive this same type of contract.

I hope all goes well with you. With best regards.

Sincerely yours,

Irving

Irving Wender

cc: Dr. Calderazzo
Dr. Natta

Sept.9, 1962

Prof.Arthur E.Woodward,
The Pennsylvania State Univ.
College of Chemistry and
Physics,
Dept.of Physics,
Osmond Laboratory,
University Park, Pennsylvania

Dear Professor Woodward:

Your letter of Aug.6, 1962 has reached me only now.

Please, let me know in advance the exact period of your arrival in Milan, and the day in which you expect to give your lecture at this Institute. Thus, I will be able to invite the interested people to attend your lecture.

A topic for your lecture of interest for us would be the application of the nuclear magnetic resonance to the study of the structures of macromolecular substances. In any case, please, let me know the exact title.

I do hope to be able to grant you a small reward for your lecture.

Since I expect I shall be absent from Milan for a long time both in October and in November, if by chance I am absent, please meet Dr.Lombardi, the co-worker of mine, who has also studied the nuclear magnetic resonance.

With my kindest regards.

G.Natta

ITALCABLE

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

LMS226 A TAGM697 LPH1556 LONDON 45/43 2 1044

ER LA RISPOSTA
ELEFONATE AL N. 8838

LT PROFESSOR G NATTA I

ZZALEONARDODAVINCI 32 MILAN

449

TELEGRAMMA *via Italcable via Italo Radio*

ITALCABLE
1-3.10.1962

1962 OTT 3 4 48

Spazio riservato agli estremi di ricevimento

ARL 900

YOUR LETTER JUST RECEIVED COULD VISIT INSTITUTE WEDNESDAY OCTOBER
TH FROM ABOUT 1500 TO 2200 HOURS TO GIVE LECTURE NMR OF SOLID POLYMERS
RIOD PLEASE TELEGRAPH IMMEDIATE REPLY PROFESSOR ARTHUR WOODWARD 89
ESTBOURNE TERRACE FLAT NO1 LONDONW2

USA

1963

G. M. BASFORD COMPANY

60 EAST 42ND STREET · NEW YORK CITY 17, NEW YORK · MURRAY HILL 2-2838

May 3, 1963

Dr. Giulio Natta
Director of the Institute of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

Enclosed is a copy of the April issue of SPE TRANSACTIONS which contains the full text of your International Award Lecture. I felt you would like to have this for your files, especially since your health would not permit you to present the lecture in person. I do hope you are feeling much better, and that some time we will have the opportunity of seeing you here in New York.

Cordially,

Patricia Nowicki

Patricia Nowicki
Account Executive
Public Relations Department

PEN:ig
Enclosure

Ringraziare

INGRAM-BLOCH CORPORATION
30 EAST 42ND STREET • NEW YORK 17, N.Y. • MURRAY HILL 7-8940
CABLE USINGRAM NEWYORK • TWX NUMBER NY1-4395

MAURYCY BLOCH
PRESIDENT

January 21, 1963

Dear Professor Natta,

It was with great pleasure indeed that I read about your being the recipient of the 1963 International Award in Plastic Science and Engineering.

Please accept my sincerest wishes for continuous good luck and success.

With kindest regards,

Sincerely,

Maurycy Bloch

Dr. Giulio Natta, Director
Institute of Industrial Chemistry
Polytechnic Institute
Milan, Italy

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, L.I., N.Y.
TEL. YAPHANK 4-6262

REFER:

December 2, 1963

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci
32-Milano
Milano, Italy

Dear Dr. Natta:

Thank you for your reply of November 12. Your X-ray analysis data have been helpful. Evidently, however, you feel that it would be interesting to obtain higher molecular weight materials. We shall be making further studies into the Et-CO system shortly. As soon as additional samples become available, we shall be sending some to you.

Your advice and interest in our work are greatly appreciated.

Sincerely,

M. Steinberg

Meyer Steinberg
Supervisor
Radiation Processing Section

Vinks

MS:hw

Feb.4, 1963

Dr.Maurycy Bloch, President
Ingram-Bloch Corporation,
30 East 42nd Street,
New York 17, N.Y. (USA)

Dear Doctor Bloch:

Thank you very much for the kind words expressed to me with regard to my being the recipient of the 1963 International Award of SPE.

With kind regards,

Sincerely yours,

G.Natta

Ann

May 13, 1963

Miss Patricia Nowicki,
Account Executive,
Public Relations Dept.
G.M.Basford Co.
60 East 42nd Street,
New York City 17, N.Y. (USA)

our ref.439/lv

Dear Miss Nowicki,

It was very kind of you to send me the April issue of SPE Transactions. I have appreciated it very much. I also wish to thank you very much for the kind words you wrote with regard to my health.

With my kindest regards,

Giulio Natta

Dec.28, 1963

American Petroleum Institute,
Data Distribution Office,
Texas A & M University,
A & M Press
College Station, Texas (USA)

Gentlemen:

Thank you very much for kindly sending me the Infrared, Raman and Nuclear Magnetic Resonance Spectral Data for the period 1-1-63 to 6-30-63.

With my kind regards, I send my best wishes.

Giulio Natta

Jan.11, 1963

American Petroleum Institute,
Data Distribution Office,
Agricultural and Mechanical
College of Texas,
A. and M.Press,
College Station, Texas (USA)

Gentlemen:

I wish to thank you very much for kindly sending me, on Nov.19, 1962, the I.R. spectral data (65 sheets), the nuclear magnetic resonance spectral data (82 sheets) and binders (77 sheets) for the period 1-1-62 to 6-30-62.

Thank you and best regards.

G.Natta

July 18, 1963

American Petroleum Institute
Data Materials Office
Agricultural and Mechanical
College of Texas
A.and M.Press

College Station - Texas - USA

Gentlemen,

I wish to thank you very much for kindly sending us, on May 29, 1963, the I.R.Spectral Data (72 sheets), the ultraviolet spectral data (35 sheets) and the nuclear magnetic resonance spectral data (215 sheets) for the period 7.1.62 to 12.31.62.

Than you and best regards.

Prof.G.Natta

TELEX Nº 2330 DECEMBER 3, 1963

GABBRODREV

PROF NATTA CHIESTOMI INTERPELLARE BOARD OF CITY OF PHILADELPHIA PER SAPERE SE PREFERISSERO PRESENTARE JOHN SCOTT AWARD IN GENNAIO OCCASIONE INAUGURAZIONE ANNO ACCADEMICO POLITECNICO DI MILANO OPPURE IN APRILE OCCASIONE CENTENARIO POLITECNICO STOP SEGRETERIA BOARD INFORMAMI CHE ERANO PRONTI PER CENTENARIO MA CHE SE PROF NATTA PREFERISSE INAUGURAZIONE IN GENNAIO CIO POTREBBE EFFETTUARSI PURCHE DOPO IL QUINDICI GENNAIO ET PURCHE DATA INAUGURAZIONE PERMETTA PRESENZA CONSOLE GENERALE AMERICANO MR EARL CRAIN STOP NULLA IN CONTRARIO AT VOSTRA PRESA CONTATTO CON MR CLAIM PER SAPERE SE DISPONIBILE GIORNO INAUGURAZIONE ANNO ACCADEMICO CHE PREGHIAMO TELEXARE INSIEME POSSIBILMENTE AT INFORMAZIONE ORA PRESENTAZIONE PREMIO ET SE PRIMA OPPURE DOPO DISCORSO PROLUSIONE

in genere

OTTOLENGHI

CITY OF PHILADELPHIA
BOARD OF DIRECTORS OF CITY TRUSTS

G. CURTIS PRITCHARD
SECRETARY

1601 SPRING GARDEN STREET
PHILADELPHIA 30, PENNA.
LOCUST 8-7575

October 22, 1963

Professor Guilio Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

This will acknowledge, with thanks, receipt of your letter dated October 18, 1963.

Although we are a little disappointed in the change of date from January to April, we still feel that the Centennial Ceremony of the Polytechnic is a most suitable occasion for the presentation of the Scott Medal to you. Therefore, we will advise the Consulate General of the change in date, and I am sure he will be only too glad to make arrangements to present the award to you in April.

Dr. Ottolenghi called this office from New York this morning and has agreed to keep us informed as to the exact date. He also offered to gives us the details of the ceremony. Since Dr. Ottolenghi is close by and we can keep in touch by telephone, perhaps it will be best if we deal directly with him. If, for any reason, you feel we should contact Prof. Bozza, please let us know.

Sincerely yours,

G. Curtis Pritchard

Secretary

rja

ec.

POLITECNICO MILANO

IL RETTORE

851

Milano, 19 settembre 1963

Chiar.mo Prof.
Giulio NATTA
Istituto di Chimica Industriale

S E D E

Caro Natta,

ho ricevuto la Tua lettera del 5 settembre 1963 e, mentre Ti esprimo ancora le mie più vive felicitazioni per il più recente riconoscimento attribuitoTi con l'assegnazione del Premio JOHN SCOTT, sono ben lieto di assecondare il Tuo desiderio facendo coincidere la Cerimonia di assegnazione del Premio con quella Accademica annuale del Politecnico che presumibilmente avverrà nella prima decade del gennaio 1964.

Distinti, cordiali saluti.

(Gino Bozza)

Milano, 5/XII/63

Gent. Dott.ssa Lamma, Interlo
Dal Dr Borra

Questo è il telex dell' Ing. Ottolenghi
per rispondere al quale mi servono elementi.

Grazie e molti cordiali saluti

S/1/ un
particolare

Sfesprieu

rimandiamo tutto a
aprile -

PROF. LAMBERTO MALATESTA
DIRETTORE
ISTITUTO DI CHIMICA GENERALE
DELL'UNIVERSITÀ DI MILANO
VIA C. SALDINI, 50
MILANO

Sept. 27, 1963.

Mr. J.W. Iliff
Secretary
Advisory Committee on the
John Scott Award
559 Weymouth Rd.
Springfield, Del. Co. PA.

cc: Dr. Mario L. Ottolenghi
Chemore Corporation
100 East 42nd Street
New York 17, N.Y.

Dear Mr. Iliff,

with regard to your letter of Sept.13, 1963 concerning the presentation of the John Scott Award to Prof. Natta, I fully agree that the most suitable occasion is the Centennial Program of the Polytechnic Institute of Milan. I will tell you more precisely the exact date of that ceremony, which will be probably held next January 1964.

I know that Prof. Natta wrote to Dr. Ottolenghi about this matter. Since Dr. Ottolenghi lives in New York, I think it is easier for you to examine all the details of it with him.

Accept my kindest regards

OCT 21 1963

CITY OF PHILADELPHIA
BOARD OF DIRECTORS OF CITY TRUSTS

G. CURTIS PRITCHARD
SECRETARY

1601 SPRING GARDEN STREET
PHILADELPHIA 30, PENNA.
LOCUST 8-7575

October 18, 1963

Dr. Mario L. Ottolenghi
Chemore Corporation
100 East 42nd Street
New York, 17, N. Y.

Dear Dr. Ottolenghi:

Please excuse my long delay in replying to your letter of August 15th, but I had to wait until I heard from several sources as to which of the two suggestions you made for the presentation of the Scott Medal to Professor Natta, would be most suitable.

It is now generally agreed that your first proposal is best - that is, the celebration of the First Centenary of the Foundation of the Polytechnic of Milan during the early part of 1964.

We have heard from Professor Malatesta who believes that you could best provide us with any details of the presentation that we need to know. Also, we have arranged with the American Consulate General in Milan to make the presentation on behalf of the Board of City Trusts. As soon as you know the definite date of the presentation, we will appreciate it if you will let us know.

We would also like to know if you plan to be in Milan at the time of the presentation. The reason for this is that we will have to send the copper medal and scroll, to be presented to Professor Natta, about a month prior to the presentation date, via diplomatic pouch as we usually do. However, if you plan to go to Milan yourself, and would be willing to do so, perhaps we could arrange for you to take the medal and scroll with you. I would appreciate knowing your feelings on this matter.

Thank you again for your most welcome cooperation.

Sincerely yours,

Ruth J. Armour

(Mrs.) Ruth J. Armour
Assistant Secretary

rja

21.11.1963

Egr.Ing.Mario L.OTTOLENGHI
Chemore Corporation
100 East 42nd Street

ns.rif.N.1008/rl

NEW YORK 17 -N.Y.- USA

Caro Ingegnere,

La ringrazio vivamente per la partecipazione alla nostra gioia e per le gentili parole che ha avuto per me. La prego di ringraziare anche a nome di Rosita, Sua moglie.

Ho ricevuto una lettera da Mr.Pritchard di cui Le allego copia.

Poichè in gennaio avrà luogo la Cerimonia dell'Inaugurazione dell'Anno Accademico del Politecnico di Milano (mentre la Cerimonia per il Centenario avrà sempre luogo in Aprile come fissato) il John Scott Award potrebbe venire consegnato nella Cerimonia del gennaio. Probabilmente è anche la sede più adatta.

Nelle mie precedenti lettere ho fatto confusione ritenendo erroneamente, che le due Cerimonie venissero fatte contemporaneamente. La pregherei perciò di informare gli interessati delle due possibilità, in modo che possano scegliere loro quella che preferiscono, e di avvisarmi appena possibile.

La prego di gradire molti cordiali saluti e di nuovo ringraziamenti.

Giulio Natta

All/

15.11.1963

Chiar.mo Prof. Gino BOZZA
Rettore del Politecnico

S e d e

Caro Bozza,

unisco alla presente copia di una lettera che ho ricevuto dalla CITY of PHILADELPHIA, relativa alla consegna del Premio John Scott in occasione della Cerimonia per il Centenario del Politecnico.

Ti sarei grato se tu potessi darmi le notizie che mi richiedono, relative alla cerimonia.

Cordiali saluti

Giulio Natta

All/

23.9.1963

Chiar.mo Prof.G.BOZZA
Rettore del Politecnico
Sede

ns.rif.N.851/r1

Caro Bozza,

ti ringrazio per la tua gentile lettera del 19 u.s., relativa alla consegna del Premio John Scott.

L'organizzazione ed io stesso siamo ben lieti che la cerimonia della consegna materiale del premio possa avvenire presso questo Politecnico.

Ti sarei grato di informarmi circa la data esatta di tale Cerimonia, in modo che io possa avvisare per tempo gli americani.

Ti pregherei anche di farmi sapere se desideri che venga scritta una lettera ufficiale a te, come Rettore del Politecnico, oppure se è sufficiente, per evitarti disturbo, che sia io stesso ad informare gli americani delle modalità della cerimonia.

Con molti ringraziamenti ti invio cordiali saluti.

Giulio Natta

1° Inaugurale - gennaio
2° Centenario - Aprile / clerici

1P

5.9.1963

Chiar.mo Prof.G.Bozza
Rettore del Politecnico

S e d e

Caro Bozza,

come mai mi è stato assegnato il Premio JOHN SCOTT consistente in una medaglia d'oro e in $ 2.000. Poichè per ragioni di salute non sono potuto andare in America per ritirarlo, gli organizzatori avrebbero pensato di incaricare l'Ambasciata Americana a Milano, di consegnarmelo in occasione di qualche riunione di Società scientifiche e in riunioni universitarie a Milano.
Poichè io preferisco che non si faccia una riunione apposita per questo, gradirei sapere se tu ritieni consigliabile che tale premio mi venga consegnato in occasione della prossima Cerimonia annuale del Politecnico (ad es. in occasione del Centenario del nostro Politecnico);
Un'altra soluzione potrebbe essere quella di una riunione della Sezione Lombarda della Società di Chimica oppure in una dell'Istituto Lombardo di Scienze e Lettere.

Ti sarò grato se vorrai esprimere il tuo parere in proposito.

Molti cordiali saluti.

Giulio Natta

ESPRESSO

Milano, 25.9.1963

Chiar.mo Prof.G.Cassinis
Accademia Nazionale dei
Lincei
R O M A

c.c. Via Ampère 15 - Milano

Caro Cassinis,

ti ringrazio vivamente per la tua gentile lettera del 21 scorso, relativa alla consegna del Premio John Scott. Contemporaneamente alla tua lettera nonno è giunta una da parte del Prof.Bonna che gradirebbe che il Premio mi venisse consegnato durante la Cerimonia per il Centenario del Politecnico di Milano, che avrà luogo nella prima quindicina di gennaio.

Date le mie condizioni di salute, che mi rendono difficoltoso ogni movimento, sono propenso a scegliere la soluzione milanese. Spero che non te ne avrai a male per tale mia preferenza, data la nostra amicizia. Ti assicuro che se stessi bene di salute avrei certamente preferito la soluzione dei Lincei, tanto più che la tua proposta si riferiva alla seduta inaugurale.

Ti prego di scusarmi e ti ringrazio ancora/ Molti cordiali saluti

ESPRESSO

ACCADEMIA NAZIONALE DEI LINCEI

IL PRESIDENTE

Roma, 21 settembre 1963

38952

Illustre Prof. Giulio NATTA
Via Mario Pagano, 54
MILANO

Caro Natta,

ho ricevuto la tua lettera del 2 corrente e desidero, prima di ogni altra cosa, felicitarmi vivamente con te per l'alta e ben meritata distinzione di cui verrai insignito con il conferimento del Premio "John Scott".

Ti ringrazio di aver pensato, anche in questa occasione, all'Accademia,che sarà veramente onorata di predisporre nella sua sede una cerimonia per la consegna del suddetto Premio ad uno dei suoi più insigni e autorevoli membri.

Io penso che tale cerimonia potrebbe aver luogo nella seduta inaugurale del nuovo anno accademico, che prevediamo per le ore 10 di sabato 9 novembre.

Ritengo che la data sia di tuo gradimento e mi riservo di farti avere, appena possibile, l'ordine del giorno.

Con rinnovate, sincere felicitazioni t'invio cordialissimi saluti.

Tante affettuosità dal tuo
antichissimo amico
Gino Cassinis

CHEMORE CORPORATION

GENERAL REPRESENTATIVE OF MONTECATINI SOC. GEN. · MILAN, ITALY

TELEPHONE
YUKON 6-7575

100 EAST 42ND STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"GABBROUSA"

22 Ottobre 1963

Cortesia
John Scott Bevan

937
28 OTT 1963
R

Ill.mo Signor
Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Gent.mo Professore,

ebbi la Sua lettera del 23 settembre u.s. ed a breve distanza copia di lettera scritta in data 27 settembre dal prof. Malatesta al Mr. J.W. Iliff, di cui Le accludo fotocopia.

Dopo di cio' in data 18 ottobre Mrs. Ruth J. Armour, assistente di Mr. G. Curtis Prichard mi ha scritto lettera che Le invio acclusa.

Infine ieri mi e' giunta in copia la lettera da Ella scritta il 18 ottobre a Mr. Pritchard.

Ho avuto oggi contatto telefonico con Mrs. Armour, ma la di Lei lettera a Mr. Pritchard non era ancora pervenuta. Comunque Mrs. Armour ritiene che il ritardo da gennaio ad aprile 1964 nella cerimonia per il centenario del Politecnico non dovrebbe disturbare la decisione presa, come Ella vede, di buon accordo con tutti.

Sarei molto lieto di poter essere presente a Milano in tale occasione, se la Montecatini me lo consentira'.

Mi e' gradita l'occasione per inviare a Lei ed alla signora Rosita i miei migliori cordiali saluti.

Suo
Mario L. Ottolenghi

Mario L. Ottolenghi

MLO:lep
all.

Carteggio John Scott Award

23.9.1963

Egr.Ing.Mario L.OTTOLENGHI
Chemore Corporation
100 East 42nd Street
New York 17 - N.Y. - USA

ns.rif.N.859/rl.

Caro Ingegnere,

il Prof.Malatesta dell'Università di Milano (che è ben distinta dal nostro Politecnico) ha ricevuto una lettera dal Comitato del John Scott Award, di cui unisco copia. Il Prof.Malatesta sia era interessato l'anno scorso del Premio ed aveva preparato una relazione riassuntiva sui miei lavori che aveva trasmesso a Filadelfia.

Dato però che Lei si era gentilmente interessato per le modalità della consegna del premio stesso, penso che sia utile che sia Lei ad occuparsi dei contatti con gli organizzatori.

Il Prof.Bozza, Rettore del Politecnico di Milano, è d'accordo per la consegna del premio stesso durante la Cerimonia per il Centenario del Politecnico di Milano, Cerimonia alla quale verrà data una particolare solennità, con partecipazione di Ministri, data l'importanza che ha questo Politecnico.

Appena avrò notizie circa la data esatta di tale Cerimonia, sarà mia premura informarLa.

La prego di gradire molti cordiali saluti.

Giulio Natta

All/

Sept.24, 1963

Carbetta
John Scott

Bozza

Mr.J.W.Iliff,
Secretary
Advisory Committee on the
John Scott Award,
559 Weymouth Rd.,
Springfield, Del. Co., PA

cc : Dr.MarioL.Ottolenghi
Chemore Corporation,
100 East 42nd Street,
New York 17, N.Y.

Dear Mr.Iliff,

With regard to your letter of Sept.13, 1963 concerning the presentation of the John Scott Award to Prof.Natta, I fully agree what the most suitable occasion is the Centennial Program of the Polytechnic Institute of Milan. I will tell you more precisely the exact date of that ceremony, which will be probably held next January 1964.

I know that Prof.Natta wrote to Dr.Ottolenghi about this matter. Since Dr.Ottolenghi lives in New York, I think it is easier for you to examine all the details of it with him.

Accept my kindest regards.

Sincerely yours,

L.Malatesta

ADVISORY COMMITTEE ON THE JOHN SCOTT AWARD
BOARD OF DIRECTORS OF CITY TRUSTS
PHILADELPHIA

OFFICE OF THE SECRETARY
589 WEYMOUTH RD.
SPRINGFIELD, DEL. CO., PA.
TELEPHONE
KI 2-5976

September 13, 1963.

Professor L. Malatesta, Directoire
Instituto Di Chimica Generale
Universita Di Milano
Milano, Italy

Dear Professor Malatesta:

With further reference to my letter of July 30, we find that the Chemore Corporation, which represents Montecatini in this country has made suggestions regarding the presentation of the Award to Professor Natta. (Copy of latest letter enclosed). While Signor Ottolenghi's first suggestion would delay the presentation until after the first of the year, the occasion is such that we would prefer to have the presentation made at that time, providing that you agree. You will note that Professor Natta has evidently been already approached in the matter.

Further, should we act thru Signor Ottolenghi, to get in touch with the proper authorities place the presentation on the Centenial Program, or would you prefer to handle it?

An early reply would be appreciated as we need to answer Signor Ottolenghi's letter. I have been slow to act on this, but have been absent in another part of this country.

Arrangements have been completed to have the presentation made by a representative of the American Consulate General in Milan, probably by Mr. Earl Crain, the Consul General.

Thank you for your cooperation.

Very truly yours,

John W. Iliff, Secretary

JWI/af
Encl.

CC: Mr. G. Curtis Pritchard

ADVISORY COMMITTEE ON THE JOHN SCOTT AWARD

BOARD OF DIRECTORS OF CITY TRUSTS

PHILADELPHIA

OFFICE OF THE SECRETARY
550 WEYMOUTH RD.
SPRINGFIELD, DEL. CO., PA.
TELEPHONE
KI 2-5978

July 30, 1963.

Professor L. Malatesta, Directoire
Instituto Di Chimica Generale
Universita Di Milano
Milano, Italy

Dear Professor Malatesta:

You have probably already learned that the John Scott Award is to be presented to Professor Guillio Natta for his invention of a Process for Making Stereo Regular (or iso tactic) Hydrocarbon Polymers. Thus, the very considerable effort that you have put in on this proposal has borne fruit. Thank you again for your assistance.

The presentation will probably be made by a member of the U.S. Embassy staff. Arrangements are, at least, under way. We understand that Professor Natta is not well, hence the presentation may be comparatively private, and in Milano. However, you may have a suggestion which may help us.

Usually, the Award is presented at a meeting of a Scientific or Honor Society of which the recipient is a member so that he may be honored in the presence of his professional friends. If such a meeting is to be held this fall in a nearby location where Professor Natta can attend, this would be the ideal arrangement. On the other hand, when the recipient has not been well, the Award has been made in the presence of a few friends at the University, for example.

Any suggestions you have will be appreciated.

Your assistance is greatly appreciated.

Very truly yours,

John W. Iliff, Secretary

JWI/mrl

Urgente

11 settembre 1963

Chiar.mo Prof.G.Cassinis
Via Ampère 5
Milano

- Presidente
Accademia Nazionale Lincei
Via della Lungara 10
Roma

Caro Cassinis,

ragioni di salute mi impediscono di recarmi a Philadelphia, USA, per la consegna del premio John Scott (comprendente una medaglia d'oro ed una somma in denaro). L'amministrazione sarebbe disposto a farmi consegnare tale premio in Italia da uno di loro o da un funzionario del= l'Ambasciata americana, purchè la cosa venisse fatta in un ambiente degno e possibilmente entro il 1963.

Poichè si tratta di un riconoscimento assai importante (è stato assegnato a suo tempo a Madame Curie, e più recen= temente a Fleming) vorrei sentire il Tuo parere sulla possi= bilità che tale premio venga consegnato in occasione di una seduta normale dell'Accademia dei Lincei, oppure in una riu= nione dell'Istituto Lombardo di Scienze e Lettere. Naturalmente preferirei, se sei d'accordo, la prima soluzio= ne.

Ti sarei grato se vorrai espormi obbiettiva= mente il tuo pensiero in proposito.

Molti affettuosi saluti.

Giulio Natta

CHEMORE CORPORATION

John Via Scott

August 15, 1963

Mrs. Ruth J. Armour
Assistant Secretary
City of Philadelphia
Board of Directors of City Trusts
1601 Spring Garden Street
Philadelphia 30, Pa.

Dear Mrs. Armour:

Many thanks for your letter of July 2nd. I am just back from my trip to Italy where I was able to see prof. Natta, who received your letter having the same date.

Prof. Natta left for his summer vacation in Champoluc (Val d'Aosta) and asks to be excused of not being able to answer until the middle of September, when he will be again in Milan.

In the meanwhile he expressed the following wishes for the presentation of his award:

1st: In the first months of 1964 there will be the celebration of the first centenary of the foundation of the Polytechnic of Milan. This would be the best occasion if the presentation could be delayed.

2nd: There will be a meeting before the end of this year of "Societa' Chimica Italiana - Sezione Lombarda" (Italian Chemical Society - Lombardy Section) at the Milan office of the "Federazione delle Associazioni Scientifiche"(Federation of Scientific Associations).

The preference of prof. Natta would be for the first proposal if there could be a delay without inconvenience beyond the end of this year.

Please advise about what could be agreeable to your Board and, with best regards, I remain

Sincerely yours,

Mario L. Ottolenghi

cc: prof. Giulio Natta
MLO:lep

CITY OF PHILADELPHIA
BOARD OF DIRECTORS OF CITY TRUSTS

G. CURTIS PRITCHARD
SECRETARY

1601 SPRING GARDEN STREET
PHILADELPHIA 30, PENNA.
LOCUST 8-7575

rispondere quando c'è importante corrispondenza

July 9, 1963

Professor Guilio Natta
Institute of Industrial Chemistry of the
Polytechnic
University of Milan
Milan, Italy

Dear Professor Natta:

This will acknowledge, with many thanks, receipt of your letter dated July 3rd.

I am very sorry that your health does not permit you to travel; however, we are endeavoring to arrange for the presentation of your award in Milan. As soon as we are certain that a representative from the United States is available to make the award for us, we will let you know.

Last week, Mr. Ottolenghi called from New York and spoke with us concerning the presentation of the award, and very kindly offered his assistance. Since he told us he was going to be in Milan within the next few weeks, he will probably talk with you about it.

In any event, I'm sure we can arrange the presentation so as not to cause you any unnecessary travel, and as soon as we have any details, we will be in touch with you again.

Sincerely yours,

G. Curtis Pritchard

Secretary

rja

La Cavallasi mi ha detto che la Cerimonia Annuale la faranno soltanto nella primavera 1964—

Curtellin
John Scott Award

CITY OF PHILADELPHIA
BOARD OF DIRECTORS OF CITY TRUSTS

G. CURTIS PRITCHARD
SECRETARY

1601 SPRING GARDEN STREET
PHILADELPHIA 30, PENNA.
LOCUST 8-7575

Telex 1606
to Brev
July 3 1963

July 2, 1963

Mr. M. L. Ottolenghi
Chenmore Corporation
100 E. 42nd Street
New York, 17, N. Y.

Dear Mr. Ottolenghi:

Thank you so much for your telephone call today concerning the John Scott Award to Professor Natta. I think you may be a great help to us in communicating with him and arranging for the presentation of the award.

As promised during our conversation, enclosed is a historical background on the John Scott Medal Fund, which I think you might find interesting. If you want to pass it on to Professor Natta, please feel free to do so.

I was sorry to hear about Professor Natta's physical condition that limits his travel, and will make it necessary to try to arrange a presentation ceremony close to Milan. As I mentioned over the telephone we usually try to present the award at a meeting of a professional society to which he belongs, since his collegues would be present. However, if that is not possible, perhaps we could make the presentation at the University of Milan, if the people in charge there would be inclined to arrange a suitable ceremony to honor Dr. Natta. We feel sure that we can arrange for a representative from the United States to attend the ceremony and make the presentation.

Your help and cooperation in this matter is greatly appreciated, and if there is any further information you would like to have, please feel free to get in touch with us.

Sincerely yours,

(Mrs.) Ruth J. Armour
Assistant Secretary

rja

JOHN SCOTT MEDAL FUND

John Scott, a chemist, of Saint Patrick Square, in the City of Edinburgh, Scotland, in 1816, bequeathed to the City of Philadelphia the sum of $4,000, the income of which was to be

> "laid out in premiums to be distributed among ingenious men and women who make useful inventions, but no one of such premiums shall exceed twenty dollars, and along with which shall be given a copper medal with this inscription 'to the most deserving'".

Strange to say, there is little information to be had concerning the career of the donor. Even so indefatigable a chronicler of the annals of chemistry as the late Dr. Edgar Fahs Smith, a Provost of the University of Pennsylvania, could throw no light on his identity.

Just why he should have chosen Philadelphia as the instrument through which "the most deserving" should be encouraged is likewise a mystery, unless he had had his attention drawn to this City through the American Philosophical Society, which even then had achieved a considerable measure of fame among the savants and scientists of the world.

There is, perhaps, a slight clue, in another bequest which he made to Philadelphia, and which is identical in its purpose to the municipal legacy of Dr. Benjamin Franklin, in aid of married artificers. This leads to the supposition that Mr. Scott might have known the venerable sage and philosopher, and thus been influenced in making Philadelphia the instrument of his benefaction.

It is interesting to note that the legacy left by this Scotsman was in the form of the funded three percent debt of the United States.

The City of Philadelphia, through its Councils, managed this fund until 1869.

Under an Ordinance of City Councils, November 22nd, 1821, a Committee of Members of the Philadelphia Society for Promoting Agriculture was made the agency for recommending awards.

An Ordinance of City Councils, February 27, 1834, substituted the Franklin Institute of the State of Pennsylvania. The Franklin Institute served in this capacity until 1919, a period of eighty-five (85) years.

Our records are not complete, but it appears that not less than 400 awards were made upon the recommendations of these two agencies.

In 1869, by an Act of the Legislature, the John Scott Medal Fund, with other Funds charitable in nature belonging to the City, was transferred to the care and management of the Directors of City Trusts, a Board consisting of twelve citizens appointed by the Judges of the Courts of Common Pleas, to serve during good behaviour and without compensation. The Mayor of the City and the President of City Council are ex-officio members of this Board.

As stated before, the amount of the bequest was $4,000. When it came under the control of the Board in 1869 it was $21,000.

In 1917, the Fund having grown to $100,000, the Directors of City Trusts decided to appeal to the Court to authorize an enlarged use of the Fund.

By Decrees of Court, 1919 - 1921, the City of Philadelphia, Trustee, is authorized to distribute the income in premiums of the maximum value of $2,000, to be accompanied by the usual copper medal,

and to make such rules and regulations for enabling it to make a wise selection of beneficiaries; either by the selection of an Advisory Board or otherwise; the premiums to be awarded for inventions that will be useful to mankind in the development of chemical, medical or any other science or development of industry in any form; the test being that it may add to the comfort, welfare and happiness of mankind.

Acting under the authority of the Decrees of Court, the Board of Directors of City Trusts formed an Advisory Committee, which at present is constituted as follows:

Donald C. Rubel, Chairman

Mr. John W. Iliff, Secretary	Mr. Henry N. Paul, Jr.
John H. Gibbon, Jr., M.D.	Mr. Wheeler McMillen
Dr. Wendel M. Stanley	Mr. Edward G. Budd
Dr. Edward R. Weidlein	Dr. Carl Chambers

Corresponding Members

Dr. Harlow Shapley	Dr. Harold C. Urey

Awards made during the years 1920 to the present total $ (list attached). None of the premiums has exceeded $1,000.00.

As Mr. Scott was a subject to Great Britain, his choice of an American Municipality as Trustee indicated a mind to which provincialism was alien. He evidently contemplated that awards should go to the deserving no matter in which country or continent they lived. High ingenuity is of no one country and in making the awards the Board has avoided all narrowness and imposed no limitation as to locality. This is evidenced by the fact that natives of Japan, Holland, England, France, Italy, Spain, Brazil and Canada have been recognized and honored.

JOHN SCOTT MEDAL FUND

Awards under the Advisory Committee - From 1920

1920

James Hartness, M.E.
President, Jones and Lamson Machine Company
Invention of High Powered Machine Tools

Edward C. Kandall, Ph.D.
Bio-Chemist, Mayo Foundation
Researches on Thyroxin

Charles E. Kenneth Mees, D.Sc.
Director, Research Laboratories, Eastman Kodak Company
Researches on the Structure of Photographic Images

Hideyo Noguchi, M.D.
Pathologist, Rockefeller Institute
Researches on the Cause and Prevention of Yellow Fever

1921

Marie Skladowska Curie
Professor in the Faculty of Sciences at Paris
Discovery of Radium and the Determination of its Radio-active Properties

1922

William Duane, Ph.D.
Professor of Bio-Physics, Harvard University
Distinguished for his Researches in Radio-Activity and of the Physics of Radium and of the X-Rays

Thomas Osborne, Ph.D.
Research Chemist, Connecticut Agricultural Experiment Station
Fundamental Studies on the Constitution of the Vegetable Proteins

Reginald A. Fessenden
Consulting Engineer, Submarine Signaling Company
Distinguished for Invention of a Reception Scheme for Continuous Wave Telegraphy as distinguished from the Damped or Spark System used by Marconi

Elwood Haynes, B.S.
President, Haynes Automobile Company
Produced an Alloy consisting of practically Pure Nickel and Pure Chromium; also alloy named "Stellite". First to discover "Stainless Steel".

1923

Arhtur L. Day, Ph.D., Sc.B.
Director, Geophysical Laboratory, Carnegie Institute of Washington
Noted for the Organization of the Geophysical Laboratory of the Carnegie Institution. Also specially distinguished for his development in this country of fine Optical Glass, formerly derived only from Germany.

C. J. Eijkman, M.D.
Professor of Hygiene, University of Utrecht, Holland
First produced experimentally a disease like beri-beri by feeding polished rice to chickens. This work has been applied to man and has called attention to an unrecognized element in food and started the study of dietary disease.

Francis William Aston, M.A., D.Sc., F.R.S.
Fellow of Trinity College, Cambridge, England
Distinguished for his Development of the Mass-Spectrography and the use of it in the study of Isotopes.

Sir Joseph John Thomson, O.M., F.R.S., LL.D., Ph.D., D.Sc.
Master of Trinity College and Professor of Experimental Physics, Cambridge, England.
His most distinguished work consists of the Development of the Physics of the Electron and the Identification of it as the Atom of Negative Electricity.

1924

Frederick G. Banting, M.D.
Physiologist
Researches leading to a Potent Extract of the Pancreas-Insulin

William W. Coblentz, Ph.D.
Physicist, Bureau of Standards, Washington
Thermophiles and Radiometers for Measuring Stellar radiation

Elmer Verner McCollum, Ph.D., Sc.D.
Professor of Biochemistry, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Maryland
Researches on Vitamins

Ralph Modjeski, D.Eng.
Civil Engineer, New York
Skill and Success in building of large bridges.

1925

William G. Housekeeper, E.E.
Research Physicist, Western Electric Co., New York
Method of sealing through glass, metals having widely different expansion co-efficients. Known as "Copper glass seal" and is gas tight.

Charles H. Norton
Inventor and Engineer, Worcester, Mass.
Development of grinding and invention of apparatus for precision grinding.

Ross G. Harrison, Ph.D., M.D.
Professor of Comparative Anatomy, Yale University
Method of Tissue Culture, etc.

Marshall A. Barber, Ph.D.
Expert in Malaria Research, U.S. Dept. Public Health, Memphis, Tenn.
Robert Chambers, Ph.D.
Professor of Miscroscopic Anatomy, Cornell Medical College
Devices for the micro-dissection of living cells.

Orville Wright
Inventor
Development of Flying Machines.

1926

Ralph Earle
Educator and Engineer
14" Naval Railway Gun Mounts and of Mine Barrage across the North Sea, used in World War.

Gustaf W. Elman
Physicist, Bell Telephone Laboratories
Permalloy and Its Application in Transmission of Messages

Harvey C. Hayes, Ph.D.
Research Physicist, Bureau of Engineering, U.S.N.
Sonic Depth Finder and Other Submarine Signalling Devices.

1927

Dr. Alfranio do Amaral
Director, Antivenin Institute of America
Preparation of Antivenins.

Alfred F. Hess, M.D.
Clinical Professor of Children's Diseases, Columbia University
Method of Producing a Vitamin Factor in Food by Ultra-violet Light.

(continued)

1927 (Cont)

Herbert E. Ives
Physicist, Bell Telephone Laboratories
Electrical Telephotography and Television

Strickland L. Kneass
Engineer, William Sellers and Company, Inc.
Exhaust Steam Injector

Dewey DeForest Knowles
Physicist, Westinghouse Electric & Mfg. Co. Research Laboratories
Grid Glow Tube

Peyton Rous, M.D.
Pathologist, Rockefeller Institute
Devices and Development of a Filtration Technique for separation from Tumor Cells a Substance producing Sarcomain Fowls

1928

Herbert M. Evans, M.D.
Professor of Anatomy, University of California
Anti-Sterility Vitamin

Thomas C. McBride
Mechanical Engineer, Worthington Pump and Machinery Corp.
Locomotive Feed Water Heater

William T. Bovie, M.D.
Professor of Bio-Physics, Northwestern University Medical School
Development of an Electro-Surgical Apparatus

Harold D. Arnold, Ph.D.
Physicist, Bell Telephone Laboratories
Development of the Three-Electride High Vacuum Thermonic Tube

1929

Lee DeForest
Electrical Engineer
Audio used in Radio

Carbon P. Dubbs
Chemical Engineer
Process for Economically Producing Gasoline on a Large Scale

Allan Bartram Field
Consulting Electrical Engineer, Metropolitan-Vickers Electrical Co,Ltd
Mathematical Paper on Eddy Currents in Large Slot Wound Conductors

(continued)

1929 (cont)

Constantin Levaditi, M.D.
Robert Sazerac, M.D.
Pasteur Institute
Joint Discovery of the Use of Bismuth in the Treatment of Syphilis

Thomas A. Edison
Numerous Inventions

1930

NONE

1931

Guglielmo Marconi
Inventor
Wireless Telegraphy

Samuel M. Vauclain
Mechanical Engineer
Manifold Improvements in Steam Locomotive

Robert M. Temple
Inventor
Benjamin Franklin Dough Mixing and Kneading Machine

Albert H. Emery
Inventor
A Mechanical Device for Testing Materials

Orville S. Peters
Inventor
Electric Telemeter, a Recording Device for Noting the Stresses in Bridge Members, etc.

Albert Kingsbury
Engineer
Thrust Bearing for use in ships and heavy machinery

Herbert T. Herr
Engineer
Miscellaneous Inventions and Discoveries in the Field of Reduction Gearing used in connection with the Turbo-Electric Drive; for the Air-Brake for Checking Speed of trains; for Improvements in Steam Turbins and Internal Combustion Engine.

(continued)

1931 (cont)

Philip Drinker
Louis A. Shaw
Staff, Harvard School of Public Health
Apparatus for administration of Artifidal Respiration

Juan de la Cierva
Harold F. Pitcairn
Engineers
Invention of the Autogiro, its improvement and development as a propelling and stabilizing force for 'heavier than air' craft, and its introduction into America

Willis H. Carrier
Engineer
Apparatus for Air Conditioning

1932

Edward G. Budd
Engineer and Industrialist
A Novel Method of Welding, designated Shot Welding, of stainless steel, and its fabrication into structural members of very light weight and high sustaining power.

George H. Emerson
Mechanical Engineer
Water Tube Fire Box Boilers for Steam Locomotive

W. L. R. Emmet
Consulting Engineer, General Electric Company
Mercury Vapor Boiler and its practical application for power purposes.

Dr. Joseph Slepian
Consulting Research Engineer, Westinghouse Electric & Mfg. Co.
Discoveries in the Field of Deionization of Gases and Fundamental and Outstanding Inventions involving these discoveries

1933

Dr. Frank Conrad
Engineer
Application of Short Wave Radio

George Richards Minot, M.D.
Professor of Medicine, Harvard University
Liver Cure in Pernicious Anemia

(continued)

1933 (cont)

C. R. Nesson
H. L. Galson
H. C. Heller
H. K. Steinfeld
Engineers
Production of the DeLa Vergne Air Conditioning Apparatus

1934

Dr. Robert F. Mehl
Director of Metals Research Laboratory, Carnegie Institute of Technology
Radiography of Metals

Dr. A. Newton Richards
Professor of Pharmacology, University of Pennsylvania
The Function of the Kidneys

Dr. Nikola Tesla
Engineer
Polyphase System of Generating, Transmitting, Distributing and Utilizing Electricity.

1935

NONE

1936

Charles F. Kettering
Engineer, General Motors Corporation
Invention of the First Electrical-Mechanical Self Starter for use in connection with automobiles

George S. Kelley
Mechanical Engineer
Invention of the Kelley Dust Trap used in the Prevention of Silicosis

James Ewing, M.D.
Director of Memorial Hospital for Cancer and Allied Diseases, N.Y.
Pioneer work in classifying tumors, which discovery has been of incalculable value in the treatment of malignant growths

1937

Dr. Evarts A. Graham
School of Medicine, Washington University
Application of the X-Ray in the treatment of the gall bladder

Dr. W. D. Coolidge
Director, Research Laboratory, General Electric Company
Application of New Principle in X-Ray Tubes

Dr. Irving Langmuir
Research Laboratory, General Electric Company
Physical-Chemical discoveries resulting in improved incandescent lamps

1938

Wendell M. Stanley, M.D.
Associate Member, Division of Plant Physiology, Rockefeller Institute for Medical Research
Isolation of the Tobacco Mosaic Virus in Crystalline Form

Edwin H. Land
Research Engineer, Plaroid Corporation
Invention of a Substance designated "Polaroid"

1939

NONE

1940

NONE

1941

Owen H. Wangensteen, M.D.
Professor of Surgery, University of Minnesota
Development of Syphonage Treatment of Intestinal Obstruction

1942

Major Edwin H. Armstrong
Electrical Engineer, Columbia University
Work in Frequency Modulation in Radio

Dr. Robert R. Williams
Chemist
Work in Thiamin (vitamin B1)

Vice Admiral Samuel Murray Robinson
Engineer, Naval Bureau of Ships
Outstanding work in Warship Design and Construction

(continued)

1942 (cont)

Dr. Arthur Hoyt Taylor
Engineer, Naval Research Laboratory
Important researches in Application of Radio to Naval Purposes.

1943

Walter E. Dandy, M.D.
Johns Hopkins University
Development of Ventriculography

Dr. Vannevar Bush
Head of Office of Scientific Research and Development, Washington

Prof. Samuel H. Caldwell
Massachusetts Institute of Technology
Development of the Differential Analyzer

John C. Garand
Chief Engineer Ordnance, Springfield (Mass.) Armory
Invention of the U. S. Rifle Cal. .30 M1

Chevalier Jackson, M.D.
Honorary Professor of Broncho-Esophagology, Temple University
Devising Instruments and Methods Useful in Bronchoscopy

Dr. Richard E. Shope
Research Worker, Rockefeller Institute
Discovery of the Complex Etiology of Swine Influenza

Dr. Otto Stader
Veterinary Surgeon
Invention of the Reduction and Fixation Bone Splint

1944

Sir Alexander Fleming, Kt.
Professor of Bacteriology, University of London
Discovery of Penicillin

1945

Dr. Lyle D. Goodhue
Chemist, U. S. Dept. of Agriculture

Captain William N. Sullivan, Jr.
Entomologist, U. S. Dept. of Agriculture
Invention of Aerosol Insecticides

Dr. Edwin J. Cohn
Dept. of Chemistry, Harvard Medical School
Methods of Yielding Separated Blood Proteins of Therapeutic Value

1945 (cont)

Dr. Ernest W. Goodpasture
Professor of Pathology, Vanderbilt University
Growth of Viruses in Chick Embryos

Dr. William E. Doering
Dr. Robert B. Woodward
Research Laboratory, Polaroid Corporation
Total Synthesis of Quinine

Dr. George H. Shull
Professor Emeritus of Genetics, Princeton University
Origination of Hybrid Corn

1946

Dr. Donald W. Kerst
Professor of Physics, University of Illinois
The Betatron or Induction Electron Accelerator

1947

Dr. Florence B. Seibert
Associate Professor of Biochemistry, The Henry Phipps Institute
Development of the Purified Protein Derivative of Tuberculin

1948

Dr. Merle A. Tuve
Director, Carnegie Institution of Washington
Development of Proximity Fuze

Prof. Morris S. Kharasch
Professor of Chemistry, The University of Chicago
Development of Organic Mercurial Seed Disinfectants

1949

Frank W. Caldwell
Director of Research, United Aircraft Corp.
Development of Controllable Pitch Propeller

Henry T. Bennett
Chief Chemist, Mid Continental Petroleum Corp.
Stabilization of Cracked Gasoline

Dr. LeRoy G. Story
Associated with Swift & Company
Stabilization of Cracked Gasoline

Dr. Charles Glen King
Scientific Director, The Nutrition Foundation, Inc.
Isolation and Identification of Vitamin C

1949 (cont)

Dr. Selman A. Waksman
Professor of Microbiology, Rutgers University
Discovery and Development of Streptomycin

1950

NONE

1951

Dr. James F. Couch
Chemist in Charge of Tobacco Section, U.S. Dept. of Agriculture
Invention of a process for the extraction of rutin from buckwheat

Dr. Roy J. Plunkett
General Superintendent, Organic Chemicals Dept., E. I. duPont de Nemours & Co.
Invention of Polytetrafluoroethylene

1952

Dr. Glenn T. Seaborg
Professor of Chemistry, University of California
Discovery and invention of the Transuranium Elements - Plutonium, Americium, Curium, Berkelium and Californium

Dr. Louis Alvarez
Professor of Physics, University of California
Invention of the Ground Control Approach Radar Landing System

1953

Eugene T. Houdry
Inventor and Scientist
Inventions in the Catalytic Cracking Process for the Refining of Petroleum

Dr. John H. Gibbon, Jr.
Professor of Surgery and Director of Surgical Research, The Jefferson Medical College of Philadelphia
Invention of the Heart-Lung Apparatus

1954

Dr. Robley C. Williams
Professor of Biophysics, University of California
Invention of a method of depositing thin metal films by thermal evaporation which has found practical application in mirror coatings for astronomy and in electron microscopy

1954 (cont)

Professor Vincent du Vigneaud
Professor of Biochemistry, Cornell University Medical College
For the synthesis of the important posterior pituitary hormone, oxytocin

Mr. Marvin Camras
Research Physicist, Armour Research Foundation of Illinois Institute of Technology
Invention of the method and means of obtaining distortion free magnetic recording through high frequency bias

Professor John Bardeen
Professor of Physics & Electrical Engineering-University of Illinois

Dr. Walter H. Brattain
Physicist - Bell Telephone Laboratories
Invention of the transistor

Mr. Igor I. Sikorsky, Engineering Manager
Sikorsky Aircraft, Div. of United Aircraft Corp.
Invention of the first practically useful single sustaining rotor helicopter

Mr. John B. Powers
Staff - Dept. of Agriculture, University of California
Invention of a color sorter for fruits and vegetables

1955

Mr. Edgar S. McFadden
Agronomist, Agricultural Experiment Station, Texas A. & M.
Origination and development of the first rust-resistant bread wheat

Dr. Harry F. Olson
Director of the Acoustical and Electro-mechanical Research Laboratory, RCA Laboratories, Radio Corporation of America
Invention of the velocity microphone

Professor Jesse W. Beams
Francis Henry Smith Professor and Chairman, Department of Physics, University of Virginia
Inventions in the field of centrifugation and particularly for his invention of the magnetically supported centrifuge

1956

Dr. Daniel Swern
Supervisor, Animal Fats Section, Agricultural Research Service, U.S.D.A.
For the invention and subsequent development of epoxidized fatty compounds which are used as stabilizing plasticizers for Vinyl Plastics

G. L. Pearson
Physicist - Bell Telephone Laboratories
D. M. Chapin
Electrical Engineer - Bell Telephone Laboratories
C. S. Fuller
Chemist - Bell Telephone Laboratories
Invention of the Bell Solar Battery

1957

Jonas E. Salk, M.D.
Professor of Bacteriology, University of Pittsburgh
Invention of the Salk Poliomyelitis vaccine

Air Commodore Sir Frank Whittle, K.B.E., C.B., F.R.S.
Aeronautical Engineer
Invention of the first practical Turbo-Jet Engine

Dr. Glenn W. Burton
Principal Geneticist, Georgia Coastal Plan Experiment Station, University of Georgia College of Agriculture
Invention of Coastal Bermuda Grass

1958

Eric L. Holmes
Consulting & Research Chemist
Basil A. Adams
Chemist
Invention of the first practical synthetic ion exchange resins and their application.

Renato Dulbecco, M.D.
Professor, Dept. of Bio-chemistry, California Inst. of Technology
Invention of a method of production of plaques with animal cells

Dr. Wise Burroughs
Professor Animal Husbandry, Iowa State College
Invention of Estrogen Usage in cattle and sheep feeds

A. J. P. Martin, F.R.S.
Chemical Consultant
Inventions in chromatography and particularly vapor phase chromatography

1959

Prof. John T. Randall, F.R.S.
Wheatstone Professor of Physics, Univ. of London King's College
Dr. Henry A. H. Boot, S.R.D.E.
Baldock, Hertfordshire, England
Invention of the Cavity Magnetron

Dr. Dean A. Lyon
Self employed Physicist
Invention of Dicumarol and of the method of extraction

Dr. Karl P. Link
Professor Dept. of Bio-Chemistry, University of Wisconsin
Invention of method of producing the first practically useful optical coating for the reduction of light reflection.

1960

Wallace H. Coulter
Head of electronic equipment firm
Invention of the Coulter fine particle counter and size analyzer

Prof. Frank A. Forward
Head of Mining and Metallurgy Dept., Univ. of British Columbia
Invention of the Forward process for extracting nickel and other metals from ore concentrates

F. C. Williams, O.B.E., S.Sc., D.Phil., M.I.E.E., F.R.S.
Electrical Engineering Laboratories, Univ. Manchester, England
Invention of the super regenerative responder and other inventions in the radar responder field

1961

Dr. E. F. Knipling, Director
Entomology Research Division, U.S.D.A., Maryland
Dr. R. C. Bushland, Investigations Leader
Livestock Insects Investigations, U.S.D.A, Texas
Invention of a method of eradicating screw worms and other destructive insects by eliminating reproduction through the rearing and release of sufficient sterile male flies

J. Presper Eckert, Jr.
Remington Rand Univac, Blue Bell, Pa.
Dr. John W. Mauchley, President
Mauchley Associates, Ambler, Pa.
Invention of the first large scale electronic computer

1962

J. W. Sparke
Royal Aircraft Establishment, Hants, England
Invention of the RAE Visual Glide Path Indicator

Dr. Horst Rinkel, Professor of Radiobiology
Philipps-Universität, Marburg, Germany
Professor Donald Hammond, Professor of Radiobiology
University of Saskatchewan, Canada
Miss Evelyn Hirschman
Wellcome Research Laboratories, Beckenham, England
Invention of a method of synthesizing Phenylketonuria

CITY OF PHILADELPHIA
BOARD OF DIRECTORS OF CITY TRUSTS

G. CURTIS PRITCHARD
SECRETARY

1601 SPRING GARDEN STREET
PHILADELPHIA 30, PENNA.
LOCUST 8-7575

June 19, 1963

Professor Guilio Natta
Institute of Industrial Chemistry of the
Polytechnic Institute
University of Milan
Milan, Italy

Dear Professor Natta:

I am pleased to inform you that at a meeting of the

BOARD OF DIRECTORS OF CITY TRUSTS

Friday, June 14, 1963, the following Resolution was adopted:

RESOLVED-that, upon the recommendation of the Advisory Committee, the John Scott Award, with premium of $2,000, be made to the following:

Professor Guilio Natta of the University of Milan
-for his invention of a process for making stereo regular (or iso tactic) hydrocarbon polymers

No definite plans for presenting the award to you have been formulated at this time. We have found it most appropriate to arrange for such a presentation before a scientific or professional society of which the recipient is a member. If you have any suggestions, they will be most welcome.

Data which we will require from you includes (1) any degrees (up to two) which you would prefer to have engraved on the medal, and (2) a resume of your background which will be required in preparing the citation and the usual publicity releases.

Looking forward to hearing from you and extending warmest congratulations,

Sincerely yours,

G. Curtis Pritchard

rja

Secretary

CITY OF PHILADELPHIA
BOARD OF DIRECTORS OF CITY TRUSTS

G. CURTIS PRITCHARD
SECRETARY

1601 SPRING GARDEN STREET
PHILADELPHIA 30, PENNA.
LOCUST 8-7575

June 19, 1963

Professor Guilio Natta
Institute of Industrial Chemistry of the
Polytechnic Institute
University of Milan
Milan, Italy

Dear Professor Natta:

I am pleased to inform you that at a meeting of the

BOARD OF DIRECTORS OF CITY TRUSTS

Friday, June 14, 1963, the following Resolution was adopted:

RESOLVED-that, upon the recommendation of the Advisory Committee, the John Scott Award, with premium of $2,000, be made to the following:

Professor Guilio Natta of the University of Milan
-for his invention of a process for making stereo regular (or iso tactic) hydrocarbon polymers

No definite plans for presenting the award to you have been formulated at this time. We have found it most appropriate to arrange for such a presentation before a scientific or professional society of which the recipient is a member. If you have any suggestions, they will be most welcome.

Data which we will require from you includes (1) any degrees (up to two) which you would prefer to have engraved on the medal, and (2) a resume of your background which will be required in preparing the citation and the usual publicity releases.

Looking forward to hearing from you and extending warmest congratulations,

Sincerely yours,

G. Curtis Pritchard

Secretary

rja

CITY OF PHILADELPHIA
BOARD OF DIRECTORS OF CITY TRUSTS

G. CURTIS PRITCHARD
SECRETARY

1601 SPRING GARDEN STREET
PHILADELPHIA 30, PENNA.
LOCUST 8-7575

June 19, 1963

676

Professor Guilio Natta
Institute of Industrial Chemistry of the
Polytechnic Institute
University of Milan
Milan, Italy

Dear Professor Natta:

I am pleased to inform you that at a meeting of the

BOARD OF DIRECTORS OF CITY TRUSTS

Friday, June 14, 1963, the following Resolution was adopted:

RESOLVED-that, upon the recommendation of the Advisory Committee, the John Scott Award, with premium of $2,000, be made to the following:

Professor Guilio Natta of the University of Milan
-for his invention of a process for making stereo regular (or iso tactic) hydrocarbon polymers

No definite plans for presenting the award to you have been formulated at this time. We have found it most appropriate to arrange for such a presentation before a scientific or professional society of which the recipient is a member. If you have any suggestions, they will be most welcome.

Data which we will require from you includes (1) any degrees (up to two) which you would prefer to have engraved on the medal, and (2) a resume of your background which will be required in preparing the citation and the usual publicity releases.

Looking forward to hearing from you and extending warmest congratulations,

Sincerely yours,

G. Curtis Pritchard

Secretary

rja

The Trustees and the Staff
of
Mellon Institute
request the honor of your presence
at the
Fiftieth Anniversary Program
of
Mellon Institute
Thursday, May the twenty-third
and
Friday, May the twenty-fourth
nineteen hundred and sixty-three
at the
Mellon Institute Building
4400 Fifth Avenue
Pittsburgh, Pennsylvania

24/5

R.S.V.P.
Mr. Paul C. Cross
Mellon Institute

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 490
DURHAM, NORTH CAROLINA

Camille Dreyfus Laboratory

April 10, 1963

Professor Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico di Milano
Milan, Italy

Dear Professor Natta:

From the last issue of "Die Makromolekulare Chemie" I have just learned that on February 26 you celebrated your 60th birthday. I want to congratulate you very heartily on this jubilee and wish you the same success in scientific work as you have had thus far. I hope that you will excuse my late congratulations.

With best regards to you and to Mrs. Natta.

Sincerely yours,

Anton Peterlin

A. Peterlin
Director

AP/jr

Caro le mie cordiali salute
Frederick
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Corbella
John Scott Award

October 18, 1963

Mr. G.Curtis Pritchard
Secretary
City of Philadelphia
Board of Directors of City Trusts
1601 Spring Garden Street
Philadelphia 30, Penna (USA)

our ref. 916/eg

c.p.c. Ing. M.L. Ottolenghi

Dear Mr. Curtis Pritchard:

As Dr. Ottolenghi has certainly told you, the Rector of the Polytechnic Institute of Milan will be very glad if, on the occasion of the Centennial Ceremony of this Polytechnic, I will be conferred of the John Scott Award.

Now I wish to inform you that this ceremony will be held in the first fortnight of April (and not in January as previously foreseen).

If you agree with this date, please inform me whether you want to contact Prof. Gino Bozza, Rector of this Polytechnic Institute (Piazza L. Da Vinci 32, Milan) directly for any detail of the ceremony or whether you wish that Dr. Ottolenghi does it.

Thanking you very much again, I send you my kindest regards.

G.Natta

Cordiale
John Scott

Roma, 3 ottobre 1963.

ACCADEMIA NAZIONALE DEI LINCEI

IL PRESIDENTE

39071

Illustre Prof. Giulio NATTA
Via Mario Pagano, 54

MILANO

Caro Natta,

ho ricevuto la tua lettera del 25 settembre c.a. e, pur con il rammarico che la nostra Accademia non possa pubblicamente onorarti in occasione della cerimonia della consegna del Premio "John Scott", mi rendo pienamente conto delle ragioni che inducono a far cadere la tua scelta sul Politecnico di Milano e ad accogliere pertanto l'invito che in tal senso ti ha rivolto il Collega Bozza.

Sarò certamente presente alla cerimonia, sia come amico d'antica data, sia come Presidente dei Lincei e mi renderò allora interprete presso di te del saluto di tutti i Colleghi dell'Accademia.

Con i migliori auguri per la tua salute e con affettuosa cordialità.

credimi tuo aff.mo

Gino Cassinis

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

17 Luglio 1963.

Professor G.Natta
Istituto di Chimica Industriale
Politecnico
Milano.

Caro Professor Natta,

desidero innanzi tutto ringraziarla per l'accoglienza, veramente gentile e cordiale, che ho ricevuto durante il mio soggiorno a Milano. La prego di voler trasmettere anche alla Signora Natta l'espressione del mio apprezza= mento.

Ho ricevuto ieri l'estratto della Gazzatta Ufficiale che il Professor Pasquon mi ha gentilmente inviato. Il tempo per la presentazione della domanda e' estremamente limitato e penso di non avere piu' del 50% probabilita' di arrivare in tempo. Ho comunque immediatamente provveduto a richiedere i documenti essenziali che spero di poter trasmettere al Ministero entro il 31 Luglio. Mi ricordo chiaramente che Lei mi suggeri' di presentarmi al concorso per la Libera Docenza che avra' luogo verso il Marzo 1964. Mi domando tuttavia se Lei mi sconsiglierebbe di presentarmi, invece, al concorso che verra' tenuto l'anno successivo. Infatti sono ormai praticamente deciso a passare in Italia o in Francia l'anno accademico 1964-65 e certamente, da molti punti di vista, sarebbe piu' conveniente che io mi presentassi al concorso durante il periodo della mia permanenza in Europa. Circa questo mio soggiorno in Europa per un anno, debbo dire che non ho ancora preso alcun accordo definitivo sebbene sia il Professor Borsellino dell'Istituto di Fisica di Genova che il Professor Benoit si siano mostrati interessati a ricevermi nel loro Istituto. Durante questo soggiorno penso anche di esplorare possibilita' per un rientro definitivo.

Visitare il Suo Istituto e discutere con Lei ed i Suoi Collaboratori ha costituito per me un'esperienza interessantissima sia dal punto di vista scientifico che da quello umano. In particolare vorrei dirle che il Suo continuo interesse ed attaccamento ai lavori ed all'Istituto e la costante alta qualita' della produzione sono stati per me un motivo di profonda soddisfazione ed un esempio di grande valore.

Con molti cari, cordiali saluti,

A.Ciferri

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

May 22, 1963

Caro Professor Natta,

io lascero' Durham il 31 Maggio e saro' a Roma dal 7 al 25 Giugno al seguente indirizzo :
Via Picco dei Tre Signori 3/A .

Lascio a Lei la scelta della data piu' opportuna per la mia visita a Milano.
Nell'attesa di rivederLa gradisca i miei migliori saluti

Alberto Cifferri

Lo invitiamo invitato a tenere un seminario presso ns Istituto

676/bis

Contella
John Scott
Award

July 8, 1963

Mr.G.Curtis Pritchard, Secretary
City of Philadelphia,
Board of Directors of City Trusts,
1601 Spring Garden Street,
Philadelphia 30, Penna (USA)

Dear Mr.Curtis Pritchard:

Further to Prof.Natta's letter of July 3, 1963 we are sending you his background.

Apologizing for the delay incurred, [redacted] remain

Sincerely yours,

the secretary to
Prof.Natta

Encl/

July 3, 1963

Mr.G.Curtis Pritchard, Secretary
City of Philadelphia
Board of Directors of City Trusts
1601 Spring Garden Street,
Philadelphia 30, Penna (USA)

our ref.676/lv

Dear Mr.Curtis Pritchard:

Your kind letter informing me that the Board of Directors of City Trusts has granted me the John Scott Award was very gratefully received. I feel much honored at having been chosen as recipient of this Award and ask you to forward my warmest thanks to the components of the Board of Directors.

The degrees I would prefer to have engraved on the medal are "Professor Doctor". My background will be sent to you within a few days.

With regard to the society suitable for presentation of the award, I wish to inform you that I am a member of the Società Chimica Italiana, Sezione Lombarda, Piazzale R.Morandi 2, Milano; of the Istituto Lombardo, Accademia di Scienze e Lettere, Via Brera 28, Milano; I am also a honorary life member of the New York Academy of Sciences, 2, East Sixty-third Street, New York. In addition, I am a honorary member of several chemical societies, e.g. of Belgium, of Austria, France, etc.

I mostly regret that my present state of health makes it very difficult for me to come to the U.S.A. Therefore I would be very grateful if a possibility exists for me to receive this award in Italy or, at least somewhere in Europe.

Thanking you very much again, I send you my kindest regards.

Giulio Natta

April 26, 1963

Mr.Paul C.Cross,
Mellon Institute,
4400 Fifth Avenue,
Pittsburgh, Pennsylvania (USA)

Dear Mr.Cross,

I wish to thank you very much for kindly inviting me to the 50th Anniversary Program of Mellon Institute. I mostly regret informing you that it will be impossible for me to be present.

With my congratulations, I send my sincerest wishes for the future of Mellon Institute.

Sincerely yours,

Giulio Natta

April 29 , 1963

Dr.A.Peterlin, Director
Research Triangle Institute,
Post Office Box 490
Durham, North Carolina (USA)

ref.357/lv

Dear Doctor Peterlin:

Your letter of April 4 and your kind wishes were very gratefully received.

I was very pleased at hearing from you again and hope to meet you in Italy if the occasion will arise for you to come to Europe. Unfortunately, my state of health does not allow me to make long journeys; this is why I think it most improbable for me to be able to come to the States.

My wife joins me in sending you kindest regards.

Giulio Natta

U. S. BUREAU OF MINES
4800 FORBES AVENUE
PITTSBURGH, PENNSYLVANIA 15213, U.S.A.

ISTITUTO DI CHIMICA ORGANICA INDUSTRIALE
UNIVERSITÀ DI PISA
PISA, ITALY

Ann Wender

November 12, 1963

Dr. R. Ercoli
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Ercoli:

It is advisable to set a deadline for the receipt of chapters for the book "Organic Syntheses via Metal Carbonyls." The date, September 1, 1964, has been adopted as this deadline and it is hoped that all authors will send the first drafts of their manuscripts to the editors before this date.

As you can well imagine, reviewing and editing, the sending of manuscripts back and forth, etc., will be quite time-consuming.

We would very much appreciate the efforts of all authors to meet the September 1964 deadline.

Sincerely,

Irving Wender

Irving Wender

P. Pino

Piero Pino

cc:
Dr. F. Calderazzo
→ Prof. G. Natta

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

PITTSBURGH
COAL RESEARCH CENTER

4800 FORBES AVENUE
PITTSBURGH, PENNSYLVANIA 15213

October 31, 1963

Dr. E. Erseli
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

6 NOV 1963

Dear Dr. Erseli:

It is a pleasure to inform you that Professor Pino has agreed to be co-editor with us of the book "Organic Synthesis Via Metal Carbonyls." As you will know, Professor Pino has done and is continuing to do outstanding work in this field and his background and perception will help make the book a better contribution. I am honored to be associated with him in this endeavor.

We shall write to you shortly concerning deadlines for the various chapters.

Sincerely yours,

Irving

Irving Wender

cc:
Dr. F. Calderazzo
Prof. G. Natta

Very best regards.
IW

Nov.12, 1963

Dr.Meyer Steinberg, Supervisor
Radiation Processing Section,
Brookhaven National Laboratory,
Associated Universities, Inc.,
Upton, L.I.,N.Y. (USA)

our ref.877/lv

Dear Doctor Steinberg,

We mostly apologize for the delay incurred in answering your letter of Sept.24, 1963. We have carefully examined the three samples of ethylene-CO copolymer by X-rays and these are our conclusions.

The sample labelled with C32-14 has been examined both by Debye spectra, and by spectra taken from a stretched fiber. The spectra have resulted identical to those reported by Y.Chatani, T.Takizawa, S.Murahashi et al. in J.Polymer Sci. 55, 811 (1961) and in the same journal 62, S27 (1962) for the ethylene-CO alternating copolymer.

The samples C32-1 and C32-3 have been examined only by Debye spectra, because any attempt to get stretched fibers from them, either by extrusion from the melt, or by stretching a film, has been unsuccessful, probably because of their low molecular weight. Nevertheless, these Debye spectra result to be analogous to some of the spectra reported by the above authors, in the second paper quoted by us, for some copolymer samples having an ethylene/CO ratio higher than unity. In particular, on this basis, the C32-3 sample would correspond to a ratio of about 3-4, while the same ratio, which characterizes the C32-1 sample, would be probably near to 1.5-2.5 .

With my best regards,

Sincerely yours,

G.Natta

P.S. If possible, we would like to receive other samples having a composition similar to that of the samples already examined by us, but with higher molecular weight.

May 2, 1963

Dr.W.E.Cake,
Fox Run Lane,
Greenwich, Connecticut (USA)

our ref. GN/lv

Dear Doctor Cake,

Thank you very much for your kind letter of April 25. It was very kind of you to discuss with Dr.White the possibility to participate in the Turin Congress with a lecture.
I have already written to Dr.White to inform him that the proposed lecture:"ABS Resins" is suitable for presentation before the International Congress on Plastics.

With all my good wishes and kindest regards.

Giulio Natta

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, L.I., N.Y.
TEL. YAPHANK 4-6262

REFER:

September 24, 1963

Dr. J. Natta
Polytechnic Institute of Milan
Milan
Italy

Dear Dr. Natta:

Concerning our letter of June 20, 1963, we were wondering whether you had received the reports and the samples of ethylene-CO copolymers we sent you.

With reference to the samples, we were wondering whether you have had a chance to examine this material and whether you have any comments.

Sono arrivati? Ne tutto Allegra

Sincerely yours,

M Steinberg

Meyer Steinberg
Supervisor
Radiation Processing Section

MS:er

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

January 30, 1963

Professor Giulio Natta
Istituto Chimica Industriale
Politecnico
Piazza L. da Vinci
Milano, Italy

Rispondere

Caro Professor Natta,

La Sua lettera e' giunta molto gradita, particolarmente perche' da tempo non avevo Sue notizie. La ringrazio vivamente per l'interesse che Lei dimostra per il lavoro mio e del Dr. Smith. I risultati di cui mi parla sono estremamente interessanti, in modo particolare la misura delle grandezze termodinamiche corrispondenti alla trasformazione solido-solido e solido-liquido per il polibutadiene 1,4 trans. Disponendo di queste grandezze (e dei dati dei raggi X) si dovrebbe poter costruire a priori il diagramma di stato forza-temperatura; attendo quindi con interesse i risultati della misura sperimentale della variazione della temperatura di trasformazione collo sforzo applicato. Come Lei suggerisce, la vulcanizzazione non e' necessaria per seguire la trasformazione solido-solido; in un secondo tempo, tuttavia, sarebbe desiderabile avere una fibra orientata e vulcanizzata per poter seguire anche la trasformazione solido-liquido, cosi' da poter costruire l'intero diagramma di stato con dati sperimentali.

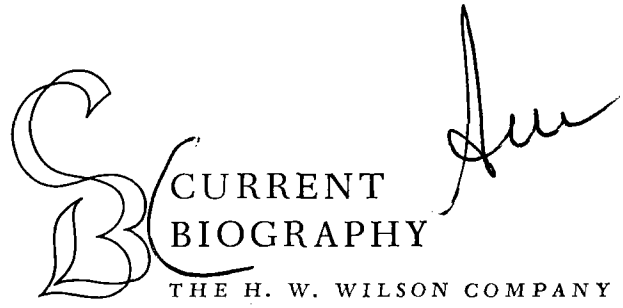
Sarei molto felice di poter discutere con Lei alcuni problemi relativi a queste trasformazioni (per esempio la descrizione in termini molecolari dell'aumento di entropia che accompagna la trasformazione solido-solido) ed alla fusione dei copolimeri con il metilbutadiene. Il 24 ed il 25 Giugno prossimo dovrei fare una visita al Professor Rossi a Genova ed il 26 potrei essere da Lei a Milano. Se, tuttavia, questa data non e' conveniente (anche perche' troppo vicina alla conferenza di Parigi) io passero' a Roma tutto il mese di Giugno e potrei quindi facilmente fare una scappata a Milano quando Lei desidera. La ringrazio dell'invito a tenere una conferenza o un seminario nel Suo Istituto che, naturalmente, accetto con piacere.

Il lavoro che Le mandai e' stato gia' inviato dal Professor Hermans (il quale, come Lei sapra', e' il mio attuale Direttore) al Journal of Polymer Science ed e' stato recentemente accettato per pubblicazione. Lei pensa che, in queste condizioni, sia opportuno pubblicarne una traduzione su La Chimica e L'Industria? Il Professor Hermans pensa che gli Editori del Journal of Polymer Science potrebbero non avere serie obiezioni alla ripubblicazione dell'articolo in Italiano. La ringrazio comunque della proposta e, se Lei crede, potrei inviare altri lavori alla Chimica e L'Industria. In particolare, debbo scrivere (col Dr.Smith) alcuni articoli sulla cristallizzazione sotto sforzo; la prima parte sara' praticamente una rivista dei risultati teorici e sperimentali esistenti ed una presentazione di una nuova elaborazione teorica che potrei scrivere direttamente in Italiano.

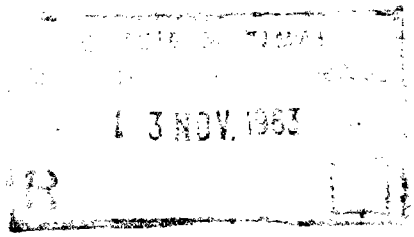
Con i piu' cari e devoti saluti a Lei ed alla Sua gentile Signora,

Alberto Ciferri

FS/63-030/ds



THE H. W. WILSON COMPANY
950 University Avenue, New York 52 • LUdlow 8-8400



November 7, 1963

fatto 13 Marzo 1964

Professor Giulio Natta
Director, Industrial Chemical Institute
Milan, Italy

Dear Professor Natta:

We have selected your name for inclusion in a forthcoming issue of CURRENT BIOGRAPHY, which for over two decades has appeared both as a monthly periodical and as a yearbook.

CURRENT BIOGRAPHY is used the world over in public, school, college, and research libraries. Newspapers, radio and television stations, and government agencies often consult it for accurate information on people in the headlines.

We would appreciate receiving from you the biographical data requested on the enclosed questionnaire. You may add some facts if you wish. Our researchers will use this information to prepare a carefully written, objective, and well-documented article on your life and career.

Will you please send us a portrait type of photograph (preferably a glossy print) that we may use to accompany the article.

Finally, we wish to make clear that we charge absolutely nothing to include a biography in our publication. We choose our candidates only because they are prominent in the news or because librarians have had inquiries about them from the public. We hope to hear from you soon.

Sincerely yours,

Charles Moritz

Charles Moritz, Editor
CURRENT BIOGRAPHY

CM:kk

DEBELL & RICHARDSON, INC.

HAZARDVILLE
CONNECTICUT

August 1, 1963

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
32 Piazza Leonardo da Vinci
Milan, ITALY

Dear Professor Natta:

We are pleased to announce the association of Hiram McCann, beginning August 5, 1963, with DeBell & Richardson, Inc., as a consultant on corporate long-range planning, including:

1. Market research forecasts of the importance of specific new materials, processes, and uses.

2. Studies of proposed acquisitions and mergers.

3. Effectiveness of technical and marketing presentations.

4. Preparation and presentation of critical technical and economic background information underlying proposed plastic projects.

In this work, he will assist and extend the marketing and product development work done by W. S. Larson, R. F. Hansen, J. R. Fisher, John Burger, and others; and the technical and economic intelligence work of Sven Richter.

Since 1961, Mr. McCann has been Editor-in-Chief of Modern Plastics Magazine and Modern Plastics Encyclopedia, and will be continuing with these publications as consulting editor. He first joined Modern Plastics Magazine as Eastern Editor in 1945, became Associate Publisher in 1946, and editor in 1948.

During World War II, while Chief of the Industrial Magazines Division of Consolidated Press, Ltd. in Toronto, he was loaned to the Canadian Government to become Executive Secretary to the Food Conservation Board of the Dominion of Canada and also acted as Public Relations advisor to the Dominion Department of War Finance.

Following his graduation from McMaster University in 1929 where he majored in Political Economics, he joined MacLean Publishing Company as News Editor of business papers, and from that date to this has been connected in either a managerial or editorial capacity with twenty-four different industrial or trade publications, giving him a broad range of interests and contacts.

Mr. McCann has an international reputation as an analyst of trends in materials, markets, and processing methods in the plastics industries.

Yours very truly,

John M. DeBell
Chairman

Henry M. Richardson
President

HMR/sk

HARVARD UNIVERSITY

CHEMICAL LABORATORY

PROFESSOR LOUIS F. FIESER
UN 8-7600, EXT. 680

12 Oxford Street
Cambridge 38, Massachusetts, U.S.A.

September 24, 1963
ref. 829/lv

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I greatly regret that we erred in reporting the history of the discovery of stereospecific polymerization. I will try to correct this in the first reprinting of the book and surely will do so in a forthcoming paperback volume "Organic Chemistry in 1963." The proposed statement is inclosed and I hope that it is agreeable to you. I would like to include your biography; will you be so kind as to supply the data?

breve –

I apologize for this incident and thank you for calling the error to my attention.

Sincerely,

Louis F. Fieser

Louis F. Fieser

LFF/L

impressione
stato — va bene
una breve biografia

Stereospecific Polymerization of Olefins

Top., p. 344. Correction

The true history of the discovery of stereospecific polymers is set forth in the following joint statement by Montecatini and Professor Karl Ziegler:

"Montecatini became in January 1953 one of the earliest licensees of Ziegler's pioneer developments on organometallic catalysts. Ziegler's 1953 invention of new complex organometallic catalysts and of the possibility of polymerizing ethylene to high polymers with the aid of them was disclosed to Montecatini in December 1953. Shortly after this disclosure, Prof. Natta, Montecatini's consultant, working with Ziegler-type catalysts, succeeded in discovering sterically differentiated polypropylenes and somewhat later he discovered stereospecific catalysts and invented his stereospecific propylene polymerization processes."

K. Ziegler and co-workers, Angew. Chem., 67, 426 (1955); Chimica e Industria, 37, 11 (1955)

MONTECATINI

BREV/ESDO

Sede, 25 giugno 1963

Egr. Sig.
Prof. G. Natta
Ist. Chim. Ind.
POLITECNICO di
M I L A N O

27 GIU. 1963
R 688

Rispondere

Comunicazione al Prof. Fieser

Ci riferiamo alla Sua del 18 corr. all'ing. Orsoni.

Siamo d'accordo con Lei circa l'opportunità di scrivere al Prof. Fieser segnalandogli le inesattezze riscontrate nel suo libro, perché possa procedere alla correzione in una eventuale ristampa.

Le alleghiamo copia del "joint statement" Montecatini-Ziegler del Dicembre 1958.

Distinti saluti.

BREVETTI

All.

25.7.1963

Egr.Dr.A.CIFERRI
C H E M S T R A N D
Research Center
Research Trangle Park
Box 731

D U R H A M - North Carolina
(U.S.A.)

763/rl

Caro Dottor Ciferri,

ricevo la Sua gentile lettera del 17 luglio e Le rispondo in fretta perchè sto partendo per un periodo di vamanza.

Per quello che riguarda il concorso per la Libera Docenza, dato che Lei prevede di passare in Italia o in Francia l'anno accademico 1964-65, penso che sia preferibile allora che Lei non si presenti ora ma l'anno prossimo, così potrà fare le cose con più calma e potrò anche eventualmente consigliarla.

Sono stato molto lieto di vederlo a Milano e spero che allora si presenti presto un'altra occasione.

Molti cordiali saluti.

Giulio Natta

28.5.1963

Egr.Dr.Alberto CIFERRI
Via Picco dei Tre Signori 3/A
ROMA

ns.rif.N.543/rl

Caro Dottore,

La ringrazio della Sua lettera del 22 u.s. e del manoscritto del lavoro da Lei inviatami.

Per quanto riguarda la Sua visita a Milano per un seminario, desidererei sapere se per Lei andrebbero bene le date del 24 o 25 giugno.

In attesa di Sue notizie, Le invio molti cordiali saluti.

G.Natta

9.4.1963

Egr.Dr.A.CIFERRI
Chemstrand Research Center Inc.
Box 731
D u r h a m - North Carolina, USA

ns.rif.N.286/rl

Egregio Dottore,

La ringrazio della segnalazione del lavoro di C.A.Boye della Tennessee Eastman Co. "Unusual Solid-Phase Transition in the Polyformals of Tetramethylcyclobutanediols".

Si tratta probabilmente di un caso diverso da quello del polibutadiene 1,4 trans. Mentre in quest'ultimo caso è praticamente certo che alla temperatura di transizione si ha una modificazione della conformazione della catena con una distribuzione statistica, invece che regolare, di certi angoli di rotazione interna, nel caso da Lei citatomi, nel quale si ha soltanto un dimezzamento del periodo di identità, si deve probabilmente ritenere che abbia luogo una distribuzione statistica di conformazione o di orientamento delle unità monomeriche che invece, a temperatura bassa, presentano conformazione od orientamenti diversi. ma ordinati.
Entrambi i casi differiscono dalla modificazione smettica del polipropilene, nella quale le catene risultano egualmente spiralizzate, come nella modificazione monoclina, ma vi è un disordine nella posizione relativa del cristallo nelle singole catene.

Probabilmente il caso da Lei indicato presenta analogie con la struttura di un poliestere precedentemente noto, la cui unità strutturale è costituita da un estere di metilolcicloesano. dell'acido tereftalico.

Molti cordiali saluti.

Giulio Natta

5.2.1963

Egr.Dr.Alberto CIFERRI
CHEMSTRAND - Research Center, Inc.
Research Triangle Park
Box 731
Durham - North Carolina - USA

ns.rif.N.84/rl

Caro Dr.Ciferri,

La ringrazio per la Sua lettera del 30.1.1963. Sarò lieto di vederLa a Milano nel prossimo Giugno. Probabilmente la data del 26 è un pò troppo avanzata e penso che sarebbe preferibile se Lei potesse fare una scappata a Milano prima di tale data. La prego di confermarmi a suo tempo la data del suo arrivo a Roma ed il suo recapito romano in modo da metterci in contatto e stabilire la data precisa della sua venuta a Milano.

Per quanto riguarda la pubblicazione su La Chimica e l'Industria dell'articolo che è già in corso di pubblicazione su J.Polymer Science, credo che non presenti vantaggi particolari data la diffusione di tale rivista anche in Italia. Sarebbe perciò certamente più gradito un lavoro inedito, secondo quanto Lei mi scrive.
Solo nel caso che Lei gradisse che i suoi lavori fossero più conosciuti anche in Italia, si potrebbe pensare alla pubblicazione su la Chimica e l'Industria di lavori già pubblicati negli Stati Uniti. La cosa preferibile sarebbe non la traduzione letterale del lavoro già pubblicato, ma una rielaborazione di una serie di lavori sia pure fatta in modo riassuntivo, con le citazioni bibliografiche dei lavori originali.

Appena avrò i dati che Lei interessano sul polibutadiene 1,4 trans, La informerò.

Cordiali saluti.

Giulio Natta

ISTITUTO DI CHIMICA ORGANICA INDUSTRIALE
UNIVERSITÀ DI PISA
VIA RISORGIMENTO, 35 - TELEF. 2 61 50

O.I./gf

Pisa, 5 Giugno 1963

Chiar.mo Prof.Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano

Rispondere al ritorno del Prof.
17/6/63

Egregio Professore,

Le accludo una fotocopia di due pagine del libro "Topics in organic chemistry" di Fieser & Fieser in cui viene data una versione non troppo giusta della scoperta dei polimeri isotattici.

Tenuto conto della grande diffusione dei libri del Prof.Fieser, penso che si dovrebbero fare presenti al Prof.Fieser stesso le imprecisioni contenute in particolare nelle prime righe del paragrafo 39.16 affinchè provveda a correggerle nelle future edizioni.

Ho avuto da Pirani buone notizie sulla brevettazione del polipropilene isotattitico; penso che se si potessero avere le rivendicazioni attualmente contenute nel Mc III A e quelle del Brevetto del polipropilene a stereoblocchi,

ISTITUTO DI CHIMICA ORGANICA INDUSTRIALE
UNIVERSITÀ DI PISA
VIA RISORGIMENTO, 35 - TELEF. 2 61 50

Pisa, ...

la posizione Montecatini negli U.S.A. dovrebbe migliorare sensibilmente.

Con i migliori saluti

(Prof.Piero Pino)

P. Pino

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

June 26, 1963

Ann -

Visto

Professor Guilio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for sending us a sample of F_2 isotactic polypentene. Its high molecular weight should make it especially desirable for the experiments we hope to carry out. Although I doubt that these will have been completed by the time of the meeting, I hope we will have some preliminary results to report.

Looking forward to seeing you in late September, I am

Sincerely,

P. J. Flory

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

April 25, 1963

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your offer to provide us with a sample of isotactic polypentene. A preparation having intrinsic viscosity in the range 2 - 3 would be entirely satisfactory for our purposes.

If, however, preparation of the material would be an imposition, perhaps we can secure a suitable sample here. In this case, we would welcome your suggestions as to a reliable source. We are especially interested in obtaining a highly isotactic product.

With best wishes, I am

Sincerely,

P. J. Flory

P. J. Flory

Ill.

21.1.1963

Egregio Dr. A. Ciferri,
Chemstrand Research Center, Inc.
Durham, North Carolina, USA

ns.rif.N.51/rl

Caro Dr. Ciferri,

ho ricevuto il suo lavoro dattiloscritto sul cambiamento di fase nei sistemi macromolecolari fibrosi che ho letto con molto interesse.
Noi abbiamo da tempo iniziato ricerche sulla trasformazione a 65°C del polibutadiene 1,4 trans, che trovo citata sulla sua pubblicazione Abbiamo già determinato alcune grandezze termodinamiche relative alla trasformazione di fase solido-solido e di quella solido fuso, che ci hanno permesso di spiegare le variazioni della temperatura di fusione e di trasformazione dei copolimeri cristallini butadiene 1,4 trans-1-metilbutadiene 1,4 trans. Tale sistema è interessante perchè tali copolimeri, per un fenomeno che noi abbiamo definito come isomorfismo delle unità monomeriche, sono cristallini per qualsiasi composizione (lavoro in corso di pubblicazione). Abbiamo pure iniziato da tempo delle misure della variazione della temperatura di trasformazione a 65°C in funzione dello sforzo applicato e pensiamo di arrivare in breve tempo a qualche risultato interessante. Poichè la trasformazione non corrisponde, come nei più noti casi di polimorfismo a formazione di nuovi cristalli topologicamente distinti, ma ad una contrazione assiale e ad un ingrossamento equatoriale dei cristalli esistenti dovuta ad un cambiamento di conformazione e di dimensione della catena principale, ne consegue che, per lo meno in campo corrispondente a sforzi non eccessivi, non dovrebbe essere necessaria una vulcanizzazione in quanto la stessa cristallinità si oppone agli scorrimenti viscosi. Quando avremo completato i dati delle nostre ricerche Le manderò notizia dei risultati. Nel caso che Lei avesse occasione di venire in Europa, sarò lieto se Lei potr fare una conferenza o tenere un seminario presso il mio Istituto. Naturalmente le verranno rimborsate le spese di viaggio in Europa e di permanenza a Milano. Nel caso che il suo manoscritto inglese non fos ancora pubblicato o fosse pubblicato su una rivista di scarsa diffus ne, ne proporrei la pubblicazione su La Chimica e l'Industria in lin gua italiana.

Molti cordiali saluti a lei e signora.

Giulio Natta

October 2, 1963

Dr. Louis F. Fieser
Harvard University
Chemical Laboratory
12 Oxford Street
Cambridge 38, Massachusetts, USA

our ref. 884-eg

Dear Doctor Fieser:

Thank you very much for your kind letter of Sept. 24 and for correcting the report on stereospecific polymerization in the volume 'Organic Chemistry in 1963', and in the first reprinting of your book.

The enclosed statement is all right.

I will send you my biography in a short time.

Accept my kindest regards.

G.Natta

Sept.12, 1963

Prof.Louis F.Fieser
Sheldon Emery Professor of
Organic Chemistry
Harvard University
Cambridge 38 - Mass. - U.S.A.

our ref.829/lv

Dear Professor Fieser,

Various co-workers of mine have pointed out to me, and I too have noticed, when reading your important and very appreciated book "Topics in Organic Chemistry" that in the chapter on "Stereo-specific Polymerization of Olefins", and in particular on page 345, information that are not quite exact are given on the discovery of isotactic polymers.
In fact, what stated could suggest that the discovery of the stereo-regular polymers was done by Ziegler, whereas it was actually done by my school: i.e. Institute of Industrial Chemistry of the Polytechnic of Milan.
I send you under separate cover, some of our papers on this topic and a copy of a joint statement of Prof.Ziegler and of Montecatini, from which the work by Ziegler and by my school in the field of isotactic polypropylene is clearly indicated.(*)

Due to the wide circulation and high importance of your book, I would mostly appreciate your correcting what stated in the field of stereoregular polymers of olefins, if another edition of the book is foreseen.

With my kindest regards.

Giulio Natta

(*) This joint statement was also reported in some papers by prof.Ziegler and Coworkers (K.Ziegler, H.Holzkamp, M.Breil, H.Martin, Angew.Chemie 67, 426 (1955) and in Chimica e Industria 37, 11 (1955)).

18.6.1963

Egr.Ing.B.Orsoni
Direzione SPEB
Società Montecatini

S e d e

c.p.c.Ing.G.deVarda - BREV

rif.N.660/rl

Egregio Ingegnere,

il Prof.Pino mi segnala due pagine del libro "Topics in organic chemistry" di Fieser & Fieser nelle quali vi sono delle espressioni relative alla polimerizzazione stereospecifica delle alfa-olefine che dimostrano che l'autore non è al corrente della reale situazione.
Penserei di scrivere all'autore, Prof.Fieser, affinchè possa rettificare le affermazioni nel caso che dovesse fare una seconda edizione del libro.
Gradirei conoscere il Suo parere in proposito e sapere se posso inviare al Fieser stesso una fotocopia della comunicazione comune fatta da Ziegler e dalla Montecatini. In caso affermativo, La pregherei di inviarmi la fotocopia della dichiarazione.

I migliori saluti.

G.Natta

All/

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

March 25, 1963

Professor Guilio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

We have read with great interest the paper by Danusso and Gianotti on the crystallization of isotactic poly-(n-pentene-1). In view of the fact that the crystallization rate is unusually low, it may be possible to carry out determinations of the intrinsic viscosity - temperature coefficient which are needed to fill out the picture of the change of configuration with temperature. Accordingly, we would welcome your assistance in providing us with a suitable sample. I would estimate that 50 grams would certainly be adequate for our needs -- half that amount might suffice if no difficulties are encountered.

With thanks for your offer of assistance, I am

Sincerely,

P. J. Flory

farlo preparare da Zambelli

deve essere molto puro

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

March 20, 1963

232

Professor Guilio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter and for giving us the benefit of your most recent information on isotactic polypentene-1. The fact that the melting point may be as high as 130° is most interesting, and of course renders the material less suitable for the experiments we have had in mind.

I shall await receipt of the photostat of galley proofs which you kindly offered to send us. Then, if we should be interested in pursuing configuration-temperature studies on this polymer, I shall be in touch with you again.

It was a pleasure to have Professor Corradini here for a brief visit. He favored us with an informal seminar during the afternoon, this seminar being attended by interested staff from the Stanford Research Institute as well as by members of my research group.

With very best wishes, I am

Sincerely,

Paul Flory

P. J. Flory

PJF:jj

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

October 25, 1963

Professor Giulio Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci, 32
MILANO, ITALY

Dear Professor Natta:

Enclosed herewith you will find a copy of the manuscript which you requested during my recent visit to your laboratories in Milano. The paper is due to be published in the Journal of the American Chemical Society for November or December.

Mrs. Flory and I want to express our deep appreciation to you and Mrs. Natta for your most cordial hospitality, both in Milano and in Torino. I am particularly indebted to you for lending encouragement for me to accept Professor Pino's invitation to visit Pisa. I found the visit with him and his colleagues extremely worthwhile.

Mrs. Flory joins me in sending our very best regards to you and Mrs. Natta and your family.

Very truly yours,

P. J. Flory

Per cortesia
Prof. Damiani
e dell'anno
Italia
in
Milo

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

June 3, 1963

Professor Guilio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for according me the priviledge of reading your manuscript on "The Thermodynamic Interpretations of the Elastic Properties of Rubbers Obtained from Ethylene-Propylene". The subject is one of considerable interest, and I hope you will permit me to offer comments which may in some respects be at variance with your interpretations.

The equation of state expressed by eqs. 5 and 6 is derived on the basic assumption that interaction effects between neighboring chains, including crystallization, may be neglected. As you have noted, the strong increase in the magnitude of the energy component of tension, shown in Fig. 5, is indicative of such an interaction. Although crystallization is not detected by X-ray diffraction, crystallinity of a low order of perfection may nevertheless be present, and thus be responsible for the strong (negative) contribution of the internal energy to the tension. Some other sort of internal interactions may conceivably be involved, of course. In either case, the basic premise underlying rubber elasticity theory is vitiated by this indication of strong intermolecular effects.

It is noteworthy in this connection that the theoretical equation of state involves certain postulates which are unacceptable at high extensions. In particular, it is assumed that the transformation of chain vectors is affine in the macroscopic deformation. When some of the chains are deformed nearly to their maximum extensions, this assumption is grossly in error. Moreover, the inversion of the Langevin function fails to yield the average force, as I endeavored to point out several years ago. In view of the points cited in this paragraph and the one preceding, I would personally incline to the opinion that the agreement with the equation of state for high extensions set forth by Kuhn and Grün is largely fortuitous.

I presume that more details are given in your ref. 7, which I do not have at hand. The equations as presented on p. 7 suggest that the experimental data taken at constant pressure were treated by thermodynamic equations applicable at constant volume. The error of using the constant volume equations tends to be smaller for high elongations, but can be considerable at low values of elongation. We have developed reliable methods for circumventing this difficulty, and I take the liberty of enclosing reprints covering this work. It would be interesting to know the value of $d \log \langle r^2 \rangle_0 / dT$ for your polymer.

The words "directly proportional" occurring in lines 15 and 16 on p. 6 presumably should be replaced by "linear with", if my understanding of the results is correct.

I certainly urge you to publish these results; the foregoing comments are offered as suggestions only.

With very best regards, I am

Sincerely,

P. J. Flory

Prof. Pizzy

ho ricevuto debitamente la sua gentile lettera del e le osservazioni in essa contenute. È possibile che la distribuzione random degli elementi (pennelli) di cloro che hanno un'azione predominante nell'inibire la formazione di raggi X contribuendo a far scomparire ogni cristallinità rilevabile ai raggi X siano fino a una certa proporzione di difetti e quindi di una associazione di natura chimica che le catene fondamentali della stirolo in modo da rendere una formazione di cristalli insieme il suo effetto può risultare sotto certi aspetti paragonabile ad una cristallizzazione. Per quanto riguarda i suoi suggerimenti relativi alle misure e volume costante intendo che la pressione costante. Le informo che i miei collaboratori hanno già iniziato uno studio del genere. Appena tali lavori saranno conclusi mi permetterò di inviarle e ho

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

February 25, 1963

163

Professor Guilio Natta
Istituto di Chimica Industriale
Del Politechnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

It is most unfortunate that you will be unable to attend the meeting of the Society of Plastics Engineering Meeting in Los Angeles this week at which time you will receive the Award of that Society. We would be pleased to have Professor Corradini visit if he can arrange to do so. Unfortunately, our seminar schedule is full for the next week or two. Otherwise, I would have been pleased to arrange for him to be invited to deliver a lecture here.

I would be happy to receive Professor Corradini if he can visit Stanford. Not having his address in Los Angeles, I send this information to you in the event that you should be able to contact him.

Mrs. Flory joins in sending our very best regards to you and Mrs. Natta and your family.

Most sincerely,

P. J. Flory

THE FLUOR CORPORATION, LTD.
ENGINEERS AND CONSTRUCTORS
2500 SOUTH ATLANTIC BOULEVARD
LOS ANGELES, CALIFORNIA

P.O. ADDRESS
BOX 7030 - EAST L.A. BRANCH
LOS ANGELES 22, CALIF.

May 9, 1963

Dr. Giulio Natta
ISTITUTO DI CHIMICA
INDUSTRIALE DEL POLITECNICO
Piazza Leonardo Da Vinci, 32
Milano, Italia

Dear Dr. Natta:

In response to your request of April 29, we are mailing under separate cover 20 copies of FLUOR-O-SCOPE.

We are happy to report that the issue has met with much favorable comment, but yours is appreciated most of all.

Very truly yours,

THE FLUOR CORPORATION, LTD.

Bert T. Casey, Editor
FLUOR-O-SCOPE

BTC:dp

THE FLUOR CORPORATION, LTD.
ENGINEERS AND CONSTRUCTORS
2500 SOUTH ATLANTIC BOULEVARD
LOS ANGELES, CALIFORNIA

P. O. ADDRESS
BOX 7030 - EAST L. A. BRANCH
LOS ANGELES 22, CALIF.

May 2, 1963

Dr. Giulio Natta
ISTITUTO DI CHEMICA INDUSTRIALE
DEL POLITECNICO
Piazza Leonardo Da Vinci, 32
Milano, Italia

Dear Doctor Natta:

Enclosed is the photograph we borrowed from you for publication in the Spring edition of our company magazine, FLUOR-O-SCOPE. Three copies of the magazine, which discussed stereoregular polymers, are enclosed for your use.

The FLUOR-O-SCOPE staff, in preparing the magazine, was especially thankful for your articles in SCIENTIFIC AMERICAN. Thank you for your assistance -- both for your writings and for permitting us to use your photograph.

Very truly yours,

THE FLUOR CORPORATION, LTD.

Bert T. Casey

Bert T. Casey, Editor
FLUOR-O-SCOPE

BTC:ca
Enclosures

Oct.16, 1963

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (USA)

our ref.915/lv

Dear Professor Flory:

Under separate cover, I send you two samples of polypentene as much amorphous as possible.

I hope that these samples can be useful to you.

Sincerely yours,

G.Natta

June 17, 1963

648/eq.

Prof.PJ. Flory
Dept. of Chemistry
Stanford University
Stanford, California (USA)

Dear Professor Flory,

As I told you in my letter of May 13, I send you, under separate cover, another sample of F_2 isotactic polypentene having the following properties : $[\eta] = 5.9$ in tetralin at 100°C.

Since we are now establishing the relationship between intrinsic viscosity and molecular weight on this polymer, I think you may be interested in knowing that we foresee that a high molecular weight of several millions) corresponds to this intrinsic viscosity.

The $[\eta]$-M relationship is investigated by us by osmotic methods in benzene and toluene.

With my kindest regards.

G. Natta

May 13, 1963

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (USA)

our ref.475/1v

Dear Professor Flory,

Under separate cover, I send you g.19 of F_1 isotactic Polypentene having the following properties : $[\eta]$ = 5.9, in tetraline at 100°C

We are still preparing another quantity of this product which we will send you as soon as ready.

Best regards.

G. Natta

May 2, 1963

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (USA)

our ref.404/lv

Dear Professor Flory,

Thank you for your letter of April 25 concerning polypentene.
We have already prepared a sample of crystalline polypentene which was only of about 30 g, since the polymerization yield was rather low. We shall try to determine the intrinsic viscosity, the melting temperature, the crystallinity of this product within a few days; thus I hope to be able to send it to you within next week.

If the amount is not enough for you, we can prepare additional amounts.

With my kindest regards,

Giulio Natta

April 3, 1963

Professor P.J.Flory,
Stanford University,
Dept.of Chemistry,
Stanford, California (USA)

our ref.264/lv

Dear Professor Flory:

Thank you for your letter of March 25, 1963. Samples of isotactic polypentene are not available now: therefore a sample of this polymer, having the highest possible steric purity, will be prepared with the aid of a catalyst based on violet $TiCl_3$ and alkyl aluminum monoiodide. Its intrinsic viscosity is supposed to be 2 ÷ 3. Please, let me know whether you desire a sample with a lower or higher molecular weight.

To-day we have got a sample of pentene-1 from the United States. If it results sufficiently pure or easy to be purified, I hope to be able to send you the desired sample within a few days.

Sincerely yours,

Giulio Natta

THE FLUOR CORPORATION, LTD.
ENGINEERS AND CONSTRUCTORS
2500 SOUTH ATLANTIC BOULEVARD
LOS ANGELES, CALIFORNIA

April 1, 1963

P.O. ADDRESS
BOX 7030 - EAST L.A. BRANCH
LOS ANGELES 22, CALIF.

Dr. Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Doctor Natta:

Enclosed is a copy of the Spring 1963 issue of FLUOR-O-SCOPE, which is devoted to the subject of "Stereospecific Polymers."

We hope that the help you gave us in preparing this issue is reflected in the magazine.

If you desire additional copies, we will be happy to fill your request.

Sincerely,

THE FLUOR CORPORATION, LTD.

Bert T. Casey/ca

Bert T. Casey
Editor, FLUOR-O-SCOPE

BTC:ca
Enclosure

ringraziare
chiedere una
centina di copie

THE FLUOR CORPORATION, LTD.
ENGINEERS AND CONSTRUCTORS
2500 SOUTH ATLANTIC BOULEVARD
LOS ANGELES, CALIFORNIA

January 22, 1963

P. O. ADDRESS
BOX 7030 - EAST L. A. BRANCH
LOS ANGELES 22, CALIF.

67

Dr. Giulio Natta, Director
Institute of Industrial Chemistry
Politecnico di Milano
Milan, Italy

Dear Doctor Natta:

We are currently preparing the spring issue of FLUOR-O-SCOPE, our company magazine (recent copy enclosed). Our subject is "stereospecific catalysts and stereoregular polymers." In researching stereospecific polymerization, our writers have drawn heavily from your published articles.

A photograph of yourself working in a laboratory would contribute greatly to our "lead" article. We would like to have a color transparency if one is available; if not, a large black-and-white print of high quality would be acceptable. I will return the photograph to you after publication.

In order to include your picture in the magazine, we must have the photograph by Friday, February 8.

Your assistance in this matter will be greatly appreciated.

Sincerely,

THE FLUOR CORPORATION, LTD.

Bert T. Casey, Editor
FLUOR-O-SCOPE

BTC:cma
Enclosure

RESEARCH LABORATORIES

GENERAL MOTORS CORPORATION

April 9, 1963

354

Prof. G. Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

I have completed travel arrangements for my forthcoming trip to Europe and plan to be in your office at 9:30 a.m. on Friday, May 10. I note in your letter that you may be away at this time and I do appreciate the fact that your associates will be available during my visit.

In Milan I will be staying at the Principe and Savoia Hotel. Should you desire to contact me please feel free to do so.

I look forward to my visit to your Institute.

Very truly yours,

P. Weiss

P. Weiss, Head
Polymers Department

PW:jmr

GENERAL MOTORS TECHNICAL CENTER
12 MILE AND MOUND ROADS WARREN, MICHIGAN

RESEARCH LABORATORIES

GENERAL MOTORS CORPORATION

January 7, 1963

Prof. G. Natta
Direttore Dell'Istituto di Chimica Industriale
Del R. Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

I am planning to visit European research laboratories and, therefore, would like to visit your institution.

My desire would be to meet you and your associates and discuss, informally, technical problems in polymer science of mutual interest. I will be in Milan on Friday, May 10, 1963, and would like to suggest this as a suitable date for my proposed visit.

I am looking forward to your reply.

Very truly yours,

P. Weiss, Head
Polymers Department

PW:jmr

GENERAL MOTORS TECHNICAL CENTER
12 MILE AND MOUND ROADS WARREN, MICHIGAN

March 12, 1963

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (USA)

our ref.197/lv

Dear Professor Flory:

Prof.Corradini was very glad of his visit to Stanford. He has told me of your desire to receive a sample of isotactic polypentene-1 for your research, due to its low melting temperature.

However, I wish to inform you that a modification of isotactic polypentene-1 exists, which has a melting temperature above 100°C (the limit seems to be 130°C, strongly depending on the crystallization temperature). This modification is obtained by low crystallization of samples of isotactic polypentene at a temperature above the melting temperature of the modification known so far.

Under separate cover I send you a photostat of the galley-proofs of a paper that is going to be published in Vol.61 of Makromolekulare Chemie.

If you are still interested in isotactic polypentene, please tell me which amount you desire.

With my kindest regards,

Giulio Natta

Dec.5, 1963

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (USA)

our ref.946/lv

Dear Professor Flory,

Thank you very much for kindly sending me the manuscript which is of great interest to me.

It was a real pleasure for me and for my wife to meet you and Mrs.Flory in Milan.
We send you both our kindest regards and best wishes for Xmas and for the New Year.

Sincerely yours,

Giulio Natta

June 18. 1963

Prof. P.J. Flory
Stanford University
Department of Chemistry
Stanford, California (USA)

our ref. 601/eg

Dear Professor Flory.

Thank you very much for your kind letter of June 3 1963 and for the remarks contained in it. It is possible that the random distribution of the chlorine atoms present, which have a predominant action in the X-ray interference, contribute to the disappearence of any crystallinity detectable by X-rays; however the formation of dipoles and therefore an association of dipolar nature between the chains parallelized by stretching, cause a variation in internal energy. the effect of which can result , under certain aspects, comparable to a crystallization.

With regard to your suggestions concerning the measurements at constant volume instead that at constant pressure. I wish to inform you that my co-workers have already started a study of this type. As soon as ready. I will take the liberty to send you a copy of that paper before its possible publication.

I look forward to meeting you in Italy on the occasion of the Turin Congress.

With my kindest regards.

G. Natta

Dell

May 14, 1963

Professor P.J.Flory,
Stanford University,
Dept.of Chemistry,
Stanford, California (USA)

our ref.478/lv

Dear Professor Flory:

I have taken the liberty of sending you, under separate cover, a paper on the thermodynamic properties of the ethylene-propylene copolymers, which I hope will be of interest to you.

Your opinion about its publication and your possible remarks will be very much appreciated.

With sincere thanks and kind regards.

Giulio Natta

P.S. I should like to have it published in the J.of Polymer Science, unless you advise us to publish it elsewhere.

June 26, 1963

Mr.Bert T.Casey, Editor
FLUOR-O-SCOPE
The Fluor Corporation Ltd.
Engineers and Constructors,
2500 South Atlantic Boulevard,
Los Angeles, California (USA)

Dear Mr.Casey,

I wish to thank you very much for kindly sending me twenty additional copies of FLUOR-O-SCOPE, which arrived here yesterday.

Very truly yours,

Giulio Natta

April 29, 1963

Mr.Bert T.Casey, Editor
FLUOR-O-SCOPE
The FLUOR Co.Ltd.
2500 South Atlantic Boulevard,
Los Angeles, California (USA)

our ref.379/lv

Dear Mr.Casey,

Thank you very much for kindly sending me the Spring 1963 issue of Fluor-o-scope.

I have appreciated it very much, and should like to receive twenty additional copies of it.

Thanking you again, I send you my kindest regards.

Giulio Natta

The Standard Oil Company
(An Ohio Corporation)
Research Department
4440 Warrensville Center Road
Cleveland 28, Ohio

E. C. HUGHES
VICE PRESIDENT

June 10, 1963

Professor Giulio Natta
Industrial Chemistry Institute of Milan Polytechnic
Milan, Italy

Dear Professor Natta:

I have been following with great interest your work on the conformational isomers of polypropylene. In particular, your recent French Patent #1,314,652 has discussed an infrared ratio technique using bands at 11.53 and 3.65μ to characterize the syndiotactic portions. I would very much like to know how the baselines were drawn for reading the absorbances of the bands. Also, your Irish Patent Application #430/60 states that the 11.53μ band is dichroic and disappears in the melt, implying it is due to crystallinity similar to the 10.05μ band in isotactic polypropylene. The ratios in the French patent, which are proportional to the amount of syndiotactic structure, vary only from 30% (to 25%) for a completely syndiotactic structure (hexane extract) to 28% (to 17%) for an equal portion of isotactic and syndiotactic structure (heptane extract). How do you prepare the samples to get a reproducible enough ratio to keep the differences significant especially since bands due to crystallinity are notably affected by physical state? You have often referred to the X-Ray pattern as the primary reference for detecting syndiotactic structure. If this is based on the 5.3 Å peak, how can this be distinguished from the 5.3 Å peak in the α-form of isotactic polypropylene?

Could you possibly send me a spectrum of the syndiotactic material? At recent Gordon Research Conferences and at a Polymer Symposium in Chicago, of which I was chairman, I had occasion to discuss these polymers with Sam Krimm. It is certainly of theoretical interest to observe the spectral differences arising from a three-fold axis helical structure as in isotactic polypropylene, and from a four-fold axis helix as in the syndiotactic material. Although your Irish patent has listed these bands, the relative intensities are of considerable importance in drawing such conclusions on structure.

As you know, it is also of considerable interest to employ nuclear magnetic resonance techniques for elucidation of such structures.

Dr. William Ritchey of our laboratories has recently done some very good work on sequence distribution in certain copolymer systems. We thought you might find it interesting so I have enclosed a lengthy abstract plus a news article. The final draft for publication of this work is in process.

I would be most appreciative and honored if you would consider this request.

Sincerely yours,

THE STANDARD OIL COMPANY (OHIO)

Dr. E. C. Hughes

Jeanette G. Grasselli

Per: Mrs. Jeanette G. Grasselli,
Project Leader,
Infrared Spectroscopy.

JGG:cnp
Encls.

ADVANCES IN CHEMISTRY SERIES
ANALYTICAL CHEMISTRY
CHEMICAL AND ENGINEERING NEWS
INDUSTRIAL AND ENGINEERING CHEMISTRY
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
JOURNAL OF CHEMICAL AND ENGINEERING DATA

ACS APPLIED PUBLICATIONS
PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth St., N. W., Washington 6, D. C. • REpublic 7-3337

RICHARD L. KENYON
Director of Publications

20 March 1963

230

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

It was very kind of you to take the trouble to write me your letter of March 11. I am indeed sorry to hear that your health did not permit your coming to Los Angeles for the SPE Conference.

Should you be at the IUPAC Congress in London, I will look forward to seeing you there. Should this not be the fortunate case, I hope that I might have the privilege of seeing you in your home city some time in the next year or two.

In the meantime, I send my very best wishes for the improvement of your health.

Sincerely yours,

Richard L. Kenyon

Richard L. Kenyon

RLK:mhl

Jan.30, 1963

Mr.Bert T.Casey, Editor
FLUOR-O-SCOPE
The Fluor Co. Ltd.,
2500 South Atlantic Boulevard,
Los Angeles, California (USA)

our ref.67/lv

Dear Mr.Casey:

Thank you for your kind letter of Jan.22. As required, I herewith enclose a black-and-white print, showing a picture of myself with a model of a polypropylene chain at my side. I would greatly appreciate your returning it to me after publication.

With best regards,

Giulio Natta

Encl/

Jan.16, 1963

Dr.P.Weiss, Head
Polymers Department,
Research Laboratories,
General Motors Corporation,
12 Mile and Mound Roads,
Warren, Michigan (USA)

our ref.29/lv

Dear Doctor Weiss:

With regard to your letter of Jan.7, I cannot tell you for certain whether I am in Milan on May 10; in fact I often have to go to Rome, due to engagements, and cannot foresee the length of my stays there.

If I am in Milan on May 10, I shall be very glad to meet you; otherwise you can come and meet some co-workers of mine and visit my Institute in their company.

Sincerely yours,

Giulio Natta

Oct.7, 1963

Dr.E.C.Hughes,
The Standard Oil Company,
Research Dept.
4440 Warrensville Center Road,
Cleveland 28, Ohio (USA)

our ref.644/lv

Dear Doctor Hughes:

I mostly apologize for answering your letter of June 10 with such a delay.

The baseline for the 11.53 μ band is tangent to the two near windows at about 11.4 and 11.7 μ . The baseline for the 3.63 μ band is tangent line at about 2 μ and at about 5 μ , possibly curved to correct for diffraction at low wavelength.

Now we prefer to assume as an internal standard the average intensity of the two bands at 2.32 and 2.35 μ read on a baseline tangent at about 2 μ .(see: G.Natta and P.Pegoraro, Rend.Acc. Naz.Lincei (8) 34, 110 (1963) and "Polymerisation du propylène a polymère syndiotactique, paper presented at the IUPAC Congress, Paris, July 1963).

- In order to obtain reproducible data of the amount of crystalline syndiotactic structure by IR, the samples are pressed at more than 150°C. The films thus obtained are annealed for about one night under vacuum or N_2 at 100°C, then they are left to cool slowly.

- When the absence of crystalline isotactic polypropylene is evident in the X-ray spectra, it is easy to observe the 5.3 A peak of crystalline syndiotactic polypropylene; on the contrary when the presence of isotactic crystallinity is evident, it is obviously more convenient to look for syndiotactic crystallinity with better separated peaks, for instance the 7.25 Å peak.

- It does not seem to us that syndiotactic polypropylene helices are four-folded.

I will send you a reprint reporting the IR spectra of syndiotactic polypropylene in a short time.

With regard to the determination of the steric regularity of syndiotactic polypropylene, NMR investigations are now in progress. We will let you know the results obtained as soon as possible.

Oct.7, 1963

Thanking you for the reprints you kindly sent to me, I remain,

Sincerely yours,

G.Natta

Encl/ estratto N. 628

May 14, 1963

Dr;E.H.Immergut, Editor
Interscience Publishers Inc.,
250 Fifth Avenue,
New York 1, New York (USA)

our ref.479/lv

cc : Prof.H.Mark

Dear Doctor Immergut:

We have now completed the English manuscript (10 typewritten pages + 7 figures + 2 tables) of a paper entitled:

"The Thermodynamic Interpretations of the Elastic Properties of Rubbers Obtained from Ethylene-Propylene".

We are undecided on the choice of the journal for its publication: the text would be suitable for both a journal specialized in the field of rubbers, and for Polymer Science owing to the extensive theoretical part.
In any case, considering the many chemists working on rubbers obtained from olefinic copolymers, we should like to have it published very soon. Therefore, before deciding to which journal the manuscript should be sent, we should like to know in which issue of Polymer Science you think it possible the publication of our paper.

My wife joins me in sending you and Mrs.Immergut kindest regards.

Sincerely yours,

Giulio Natta

March 11, 1963

Mr.Richard L.Kenyon,
Editorial Director,
ACS Applied Publications,
1155 Sixteenth St.,N.W.
Washington 6, D.C. (USA)

Dear Mr.Kenyon,

I am very sorry that, due to my state of health, I could not come to Los Angeles for the S.P.E. Conference.

My co-worker, Prof.Corradini, who read my lecture at Los Angeles, has come back from the States only now and has brought to me the kind cable you sent to Los Angeles. Therefore, only now I can thank you very much for the kind words expressed to me also on behalf of the American Chemical Society. I feel greatly honoured at receiving this participation from the American Chemical Society.

Thanking you very much again, I send you my kindest regards.

Giulio Natta

January 10. 1963

Dr. Richard L. Kenyon
ACS Applied Publications
1155 Sixteenth St.
N.W., Washington 6. D.C. (USA)

our ref. 4/eg

Dear Mr. Kenyon:

Thank you very much for the kind words you expressed in your letter of Dec. 20 concerning my being named to receive the 1963 International Award in Plastics Science and Engineering.

The schedule of my journey to the States has not being made yet; therefore I do not know whether it is possible for me to come and visit you at the ACS building. In any case, I mostly thank you for your kind invitation.

My wife joins me in sending you and Mrs. Kenyon kindest regards.

G.Natta

mi
Potuto
a Milano

Sept.6, 1963

Dr.G.M.Kline,
U.S.Dept.of Commerce,
National Bureau of Standards,
Washington 25, D.C. (USA)

your ref.7.00

Dear Doctor Kline:

I have come back to Milan after a long period of holidays only to-day: therefore, please excuse my delay in answering your kind letter of July 18.

I have very much appreciated your kindly informing me that I have been elected a Member of the IUPAC Plastics and High Polymers Section. I mostly regret I could not participate in the London Meeting - however, I hope to meet you at the Turin Congress at the end of September, if my state of health allows me to participate in personally.

If Mrs.Kline and yourself can come to Milan in the period between Sept.23 and 25, that is immediately before the Turin Congress, I will be very pleased to meet you and to have you both either at lunch or at dinner at home.

I also wish to thank you very much for your letter informing me about my election to the Board of examiners for the SPE award. I answered it with some delay, but I hope that my cable reached you in due time.

Mrs.Natta and I look forward to meeting you and Mrs.Kline in Italy in September.

Sincerely yours,

G.Natta

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

ADDRESS REPLY TO
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

IN YOUR REPLY
REFER TO FILE NO.

July 18, 1963 7.00

Air Mail

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politechnico
Via Mario Pagano 54
Milano, Italy

Dear Dr. Natta:

It is a great pleasure to inform you that you have been elected a Titular Member of the IUPAC Plastics and High Polymers Section. We missed you at the meeting in London and look forward to your continued participation in the work of the Section. You will be receiving minutes of the London meeting from the Secretary in the near future.

The Section noted with sorrow and a moment of silence the loss of Professor Dr. A. G. Nasini during the past year. His support and contributions to our activities and his friendliness and hospitality during our symposia in Italy are well remembered.

Mrs. Kline and I will be coming to Turin for the XVth International Plastics Congress and Elastomers Symposium in September. We look forward to seeing you and Mrs. Natta again at that time.

Mrs. Kline joins me in sending our best regards to you and Mrs. Natta.

Sincerely yours,

G. M. Kline, Chairman
Plastics and High Polymers Section
IUPAC Applied Chemistry Division

cc: Dr. A.F. McKay
Mr. Dring

TEXACO
INC.

P. O. BOX 509
BEACON, NEW YORK

W. E. KUHN
GENERAL MANAGER
RESEARCH AND TECHNICAL DEPARTMENT

Am -

July 11, 1963

Professor G. Natta
Politechnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

It was indeed a pleasure and a privilege to be able to meet with you and Mr. Mazzanti. The work that you have done will long be recognized not only in your country but throughout the world.

It was indeed a most interesting discussion with you and I sincerely hope that we will be able to have another meeting with you some time in the future.

Sincerely yours,

WEKuhn

WEK-RDM

THE FLORIDA STATE UNIVERSITY

TALLAHASSEE

INSTITUTE OF MOLECULAR BIOPHYSICS

June 25, 1963

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter of June 17. I am indeed sorry that you cannot satisfy our request for copolymers of styrene and fluorostyrene. However, I do appreciate your situation and your interest.

With kindest personal regards,

Sincerely yours,

Leo Mandelkern
Professor of Chemistry

LM/mfb

THE FLORIDA STATE UNIVERSITY

TALLAHASSEE

INSTITUTE OF MOLECULAR BIOPHYSICS

May 29, 1963

Professor G. Natta
Instituto chimica Industriale
Politecnico de Milano
Milan, Italy

Dear Professor Natta:

We have read with a great deal of interest your work on the melting and crystallization of styrene and p-fluorostyrene copolymers. It is certainly a very unique system in that it appears to form solid solutions under the complete composition range.

We are most interested in studying in some detail the crystallization kinetics and melting of such a copolymeric system. We are wondering whether there would be available some samples covering the complete composition range which we could use in our dilatometric studies.

Any help that you could give us in this matter would be greatly appreciated. We look forward to hearing from you.

With kindest personal regards.

Sincerely yours,

Leo Mandelkern
Professor of Chemistry

LM/lw

Lavoro vecchio e campini preparati erano
piccole quantità

THE UNIVERSITY OF ARIZONA
TUCSON

COLLEGE OF LIBERAL ARTS
DEPARTMENT OF CHEMISTRY

December 9, 1963

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

You are very kind to take time to write me concerning the SPE International Award. It is especially gratifying to be chosen for that award as you are a previous recipient.

I was very happy to see in the news recently that the Nobel Committee has honored itself by recognizing your excellent work in stereospecific polymerization.

Sincerely,

C. S. Marvel

CSM:im

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

SF-1201 (4-60)

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination

137A PST FEB 27 63 LC037 OC078

L O WA023 NL PD

FAX WASHINGTON DC 26

PROF GIULIO NATTA, CARE SOCIETY OF PLASTICS ENGINEERS

STATLER HILTON HOTEL LOSA

WARMEST CONGRATULATIONS ON YOUR RECEIVING THE SPE INTERNATIONAL AWARD. I KNOW THAT YOUR SELECTION FOR THE HONOR IS RESPECTED AND APPLAUDED THROUGHOUT THE WORLD IN THE LIGHT OF THE GREAT CONTRIBUTIONS YOU HAVE MADE TO THE SCIENCE OF POLYMERIZATION AND TECHNOLOGY OF PLASTICS. I SINCERELY REGRET MY INABILITY TO BE PRESENT AT THE PRESENTATION, BUT I JOIN IN THE SPIRIT OF THE OCCASION

RICHARD L KENYON AMERICAN CHEMICAL SOCIETY.

Dear Andrews

Kremslehner Hotels · Wien

Hotel Regina
IX Rooseveltplatz 15
45 76 81, Telex 07/4700

Graben Hotel
I Dorotheergasse 3
52 15 31

Hotel Royal
I Singerstraße 3
52 46 31, Telex 01/2370

Hotel Regina
Vienna
June 20, 1963

Dear Professor Natta:

I am planning to attend the Conference on Macromolecular Chemistry in Paris the first week of July, and am making a short tour through Europe with my mother before the meeting.

According to present plans, I will be coming through Milan on Tuesday, June 25, and I would like very much to visit your Institute, if this would be possible, and also to meet you if you were there at that time. I would also be interested to meet Professor Pegoraro.

One of the students working with me at M.I.T., Mr. Aldo Crugnola, who will be working in your Institute next year, should be in Milan by that time, and I am planning to visit him and his wife also. I am also writing to them to let them know the exact date of my arrival in Milan.

Hoping that a visit to your laboratory will be possible, and that I may have the pleasure of meeting you, I am

Sincerely yours,

Rodney D. Andrews Jr.

Asst. Professor
Dept. of Mechanical Eng.
M.I.T.

P.S. No reply to this letter will be necessary. I will telephone you at the Institute, and also Mr. and Mrs. Crugnola when I arrive in Milan (which may be late June 24 — this is not yet completely certain).

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
CAMBRIDGE 39, MASSACHUSETTS

July 10, 1963

Professor Giulio Natta, Director
Institute of Industrial Chemistry
Polytechnic of Milan
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

I am writing to thank you for the hospitality shown to me when I visited your Institute on June 25. I also appreciated your kind invitation to have lunch with you and your family, and was very pleased to have the opportunity to meet your wife and daughter.

It was unfortunate that time did not permit me to stay for Dr. Ciferri's lecture, and to talk further with Professor Pegoraro and Aldo Crugnola. I did see Dr. Ciferri again at the Paris meeting, however. I am sorry that you were not able to be in Paris yourself, as you had planned.

I am sure that Aldo Crugnola will benefit very much from his stay with you during the coming year, and I trust also that he will be able to make some valuable contributions to your own research program.

I am sending enclosed a notice of a meeting on "Rheo-Optical Properties of Polymers" which is being held in Amherst, Mass., at a date which coordinates with the International Rheology Congress at Brown University in August. You might wish to pass this on to Professor Pegoraro, or to someone in your laboratory who is planning to attend the Rheology Congress.

Thanking you again for your many kindnesses, I am

Very sincerely yours,

Rodney D. Andrews Jr.

Rodney D. Andrews Jr.
Assistant Professor
Textile Division
Room 3-336

RDA:sw

Pauline Wasserman

no

no

Not interested here

June 17, 1963

Prof. Leo Mandelkern
the Florida State University
Tallahassee
Institute of Molecular Biophisics

our ref. 583/eg

Dear Professor Mandelkern:

Thank you for your letter of May 29. I am glad you are interested in the results obtained by us with styrene and fluorostyrene copolymers, but I regret informing you that at present I cannot supply you with these samples, suitable for a detailed scientific study.

The preparation of stereoregular copolymers of nuclear substituted styrenes with styrene, was the object of a study done by us in 1957. Since then the study was not developed any longer, because other topics seemed more important to us.

The chemists who prepared and studied these copolymers were then my co-workers and now are not at my Institute any longer, but work in research laboratories of Industries.

The samples of copolymers then prepared in small amounts, were practically used up for analysis and characterizations. Unfortunately it is difficult to prepare them again, because my co-workers now do not deal with the same monomers and the same catalysts. In addition in order to obtain copolymers with good control of composition, the copolymerizations should be carried out at rather low conversion yields and this requires a greater care in the preparation.

These are the reasons why I cannot satisfy your request, even if I should have been very much interested in the results of a research done by you.

With my kindest regards.

G. Natta

DEPARTMENT OF CHEMISTRY

August 5, 1963

Professor G. Natta
Director, Inst. of Ind. Chem.
Poly. Inst. of Milan
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

Dr. Akihiro Abe, who has been working with me, will be coming to Milan at the end of September and would like to have an opportunity to visit your laboratories. Would you please let me know if such a visit could be conveniently arranged?

Any help you can give us will be greatly appreciated.

With kindest regards,

Sincerely yours,

Murray Goodman

Murray Goodman

MG:DL

rispondere!

Prof. [illegible]
Huggins [illegible] Conf.
[illegible]
dal 25 - 28 7bre
[illegible] Varenna [illegible]
[illegible]

STATE UNIVERSITY COLLEGE OF FORESTRY

AT SYRACUSE UNIVERSITY

SYRACUSE 10, NEW YORK

September 26, 1963

Professor G.Natta

Directtore dell'Istituto di Chimica
Industriale
del Politecnico di Milano
Milano
Italy

Dear Professor Natta:

I have been working at the Basic Research Laboratory of the Toyo Rayon Co. of Japan and studied mainly on the polymerization kinetics of ε-caprolactam and its derivatives. In 1961, I had joined the research group of Prof. H.F.Mark of the Polytechnic Institute of Brooklyn and, in 1962, I moved to Syracuse and I have been working with Prof. M.Szwarc on the kinetics of radical ions in the anionic polymerization.

As I have finished my post-doctral research work in this country, I am going back to Japan in October. On the way back to Japan, I want to visit your organization. I would very much appreciate if you kindly permit me to visit your laboratory. If such a visit is possible, would it be convenient to you on October 23, Wednesday?

I am looking forward to receiving your favorable answer.

With my best regards, I am,

Very sincerely yours

Naoya Ogata

Dr. Naoya Ogata

se lui è assente
con collaboratori
tel. all'arrivo

POLYMER RESEARCH INSTITUTE
H. F. MARK. DIRECTOR

September 20, 1963

Professor G. Natta
Direttore dell'Istituto di Chimica
Industriale
del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Kindly permit me to take this opportunity to approach you with the following request. Dr. Naoya Ogata, of the Toyo Rayon Company of Japan, has been carrying out post-doctoral research work in the United States for the past two years. He spent one year at' our Institute and proved to be one of my outstanding research associates.

He has expressed a desire to visit your organization before he returns to Japan next month. I would very much appreciate it if you could kindly offer him the opportunity to visit your laboratory. If such a visit is possible, would Wednesday, October 23, 1963 be convenient to you?

May I request that you direct your reply to my associate, Dr. Sheldon M. Atlas, Polytechnic Institute of Brooklyn, 333 Jay Street, Brooklyn 1, New York. Dr. Atlas is handling Dr. Ogata's itinerary.

With warmest personal regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:gf

MONTECATINI
SETTORE STUDI PROGETTAZIONI E BREVETTI
Servizio Studi e Progettazioni

Prof. Paul F. Bruins
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn 1, New York.

Or/sl.

October 18, 1963.

Dear Professor Bruins,

I receive with thanks your letter of October 14, announcing your visit here in April of May 1964.

We shall be most pleased to meet you and to discuss matters of common interest with you.

I expect to receive in due time information from you about the date.

Sincerely,

Ing: Orsoni

Bartolomeo Orsoni

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

DEPARTMENT OF CHEMICAL ENGINEERING

October 14, 1963.
AIR MAIL

18.OTT.1963

Dr. Bartolomeo Orsoni
Settore Studi Progettazioni e Brevetti
Soc. Montecatini
Largo Donegani 1-2
Milano, ITALY

Dear Dr. Orsoni:

Professor Giulio Natta has suggested that I write to you concerning my plans for a visit to Italy in the latter part of April or May. The Polytechnic Institute of Brooklyn has very generously given me a Sabbatical Leave for four months, next Spring, beginning in February. I plan to spend the early part of this in England, and to attend the International Plastics Exhibition in Copenhagen the middle of April. Following that, my plans are not definite.

By way of introducing myself, I have been a member of the Faculty at the Polytechnic Institute since 1935, and doing research and teaching in the field of Plastics Technology.

I am interested in exchanging knowledge and particularly acquiring knowledge of the progress made by Montecatini.

Looking forward to hearing from you,

Very truly yours,

Paul F. Bruins

PAUL F. BRUINS
Professor of Chemical Engineering

PFBmw
CC: Prof. Giulio Natta
Direttore dell'Instituto di Chimica Industriale
del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

5.12.1963

Ann

Mr.James M.MARGOLISn Consultant
Chemical Marketing & Research Co.
232 Madison Avenue

NEW YORK 16 - N.Y. - USA

Dear Mr.Margolis,

with regard to your letter of October 17, I wish to inform you that I never dealt with fluorocarbon material. In any case I have forwarded your letter to Dr. H.Mostardini, Divisione Prodotti per l'Industria, Largo Domegani, Società Montecatini, in the case he might be interested in .

Sincerely yours,

(Prof.G.Natta)

September 18, 1963

Dr. Akihiro Abe
c/o Prof. Liquori
Istituto Chimica Fisica
dell'Università
NAPOLI

our ref.846/eg

c.c. M. Goodman

Dear Doctor Abe,

Only to-day, on my return from my Summer holidays, I have found the letter by Prof. Goodman telling me your wish to come to Milan and visit my Institute on Friday, October 11.

Therefore please excuse my delay in answering.

Unfortunately, in the period you have chosen for your visit, a number of co-workers of mine and myself will be out of town due to previous engagements. Thus I cannot tell you for sure that I will be able to welcome you personally. However, when arriving in Milan, please call my secretary up who will arrange your visit to my Institute.

With kindest regards,

Sincerely yours,

G. Natta

October 2, 1963

Dr. Sheldon M. Atlas
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York (USA)

our ref. 885-886/eg

Dear Doctor Atlas:

With regard to the letter by Prof. Mark of Sept. 20, and by Dr. Ogata of Sept. 26, 1963 I am glad to inform you that Ogata can come and visit my Laboratories, on October 23. If I am absent, a co-worker of mine will meet him and show him my Institute. In any case, on his arrival to Milan, he should call me up and we will arrange his visit here.

Sincerely yours,

G.Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

DEPARTMENT OF CHEMICAL ENGINEERING

October 14, 1963.
AIR MAIL

Dr. Bartolomeo Orsoni
Settore Studi Progettazioni e Brevetti
Soc. Montecatini
Largo Donegani 1-2
Milano, ITALY

Dear Dr. Orsoni:

Professor Giulio Natta has suggested that I write to you concerning my plans for a visit to Italy in the latter part of April or May. The Polytechnic Institute of Brooklyn has very generously given me a Sabbatical Leave for four months, next Spring, beginning in February. I plan to spend the early part of this in England, and to attend the International Plastics Exhibition in Copenhagen the middle of April. Following that, my plans are not definite.

By way of introducing myself, I have been a member of the Faculty at the Polytechnic Institute since 1935, and doing research and teaching in the field of Plastics Technology.

I am interested in exchanging knowledge and particularly acquiring knowledge of the progress made by Montecatini.

Looking forward to hearing from you,

Very truly yours,

Paul F. Bruins

PAUL F. BRUINS
Professor of Chemical Engineering

PFBmw
CC: Prof. Giulio Natta
Direttore dell'Instituto di Chimica Industriale
del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

July 25, 1963

Prof.Paul F.Bruins,
Dept.of Chemical Engineering,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (U.S.A.)

our ref.625/lv

Dear Professor Bruins:

I mostly apologize for my delay in answering you. But I had to consider your proposal first. On this regard, I contacted Dr.B.Orsoni of Montecatini, who will gladly answer you personally.
Would you please write to Dr.B.Orsoni, specifying your desires? His address is:

Dr.Bartolomeo Orsoni,
Settore Studi Progettazioni e Brevetti,
Soc.Montecatini,
Largo Donagani 1-2
Milano (Italy)

With my kindest personal regards,

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

DEPARTMENT OF CHEMICAL ENGINEERING

June 7, 1963.
AIR MAIL

Prof. Giulio Natta
Direttore dell'Instituto di Chimica Industriale
del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, ITALY

625

Dear Professor Natta:

Dr. Herman Mark has suggested that I write to you.

The Polytechnic Institute has very generously given me a Sabbatical leave for four months next Spring, starting in February. I would like to travel in Europe and become better acquainted with the state of the art in the field of plastics, as well as to make use of my experience in this field, by giving lectures and possibly doing some consulting. Your advice and help would be most welcome in formulating my plans, which are completely flexible at this time.

I have been teaching and doing research in Plastics, as well as consulting, for more than 30 years. At present I am consultant to a number of concerns, both large and small, in the United States.

We are planning on expanding our Graduate Program in Plastics and Polymer Courses leading to a Master's Degree in Polymeric Materials, in the Fall of 1964. I expect to teach a new course at that time on the subject of Polymer Manufacture and am particularly interested, therefore, in adding to my knowledge in this area.

Looking forward with pleasure to hearing from you,

Very truly yours,

Paul F Bruins

PAUL F. BRUINS
Professor of Chemical Engineering

PFBmw

March 2, 1964

Dr.Murray Goodman,
Dept.of Chemistry,
Polytechnic Institute of Brookl
333 Jay Street,
Brooklyn 1, New York (U.S.A.)

our ref.126/lv

Dear Doctor Goodman:

Thank you very much for your letter of Feb.18, and for any help you will give to Dr.Porri on his coming to the U.S. for the joint Symposium of the Polymer and Rubber Divisions at the ACS Meeting in Chicago.

With my best personal regards.

Giulio Natta

DEPARTMENT OF CHEMISTRY

February 18, 1964

126

Professor G. Natta
Polytechnic Institute of Milan
Piazzo Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

I am enclosing herewith a copy of my letter of this date to Professor Porri outlining the arrangements we are making for his participation in the joint Symposium of the Polymer and Rubber Divisions at the ACS Meeting in Chicago, September 1964.

I trust the arrangements will be satisfactory to both you and Professor Porri.

With best personal regards,

Sincerely yours,

Murray Goodman

Murray Goodman

MG:DL
Encl.

Nov.29, 1963

Dr.Carl S.Marvel,
Dept.of Chemistry,
University of Arizona

Dear Doctor Marvel,

I am most delighted to hear that the SPE International award has been conferred upon you.

With my heartiest congratulations I send you my best wishes for your continued success.

Kindest regards.

Giulio Natta

DEPARTMENT OF CHEMISTRY

June 11, 1963

Prof. Dott. Ing. Giulio Natta
Director of the Inst. of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

I want to extend to you my sincere thanks for your hospitality during my recent trip. I enjoyed very much my visit with you and seeing old friends. The time spent was most rewarding scientifically and I want to thank you for your interest.

With best personal regards,

Sincerely yours,

Murray Goodman

MG:DL

Murray Goodman

DEPARTMENT OF CHEMISTRY

May 6, 1963

Professor Giulio Natta
Istituto di Chim. Industriale Del
Politecnico
Piazza Leonardo DaVinci 32
Milan, ITALY

Dear Professor Natta:

Thank you for your letter of April 24. I have hotel reservations. I plan to contact you some time during the morning of Wednesday, May 29th and to make arrangements to come to your Institute. I hope I will have an opportunity to spend the day with you and your colleagues to discuss matters of mutual interest.

With kind regards,

Sincerely yours,

Murray Goodman

MG:DL

Murray Goodman

February 18, 1964

Professor Lido Porri
Polytechnic Institute of Milano
Piazza Leonardo Da Vinci 32
Milano, ITALY

Dear Professor Porri:

On behalf of the Symposium on New Aspects of Elastomer Stereospecific Polymerization to be held jointly by the Polymer and Rubber Divisions at the ACS National Meeting in September 1964, I would like to invite you to deliver a lecture on your research on the polymerization of isotactic and syndiotactic stereoisomers of cis-1,4 polypentadiene.

We would be more than happy to reimburse you for your air passage (economy class) from Milan to Chicago and return. During your stay in the United States, we would like very much to have you visit our Institute and also several industrial and research laboratories. We are arranging in this way to make certain that all the funds needed to cover the costs of your trip will be available. You will hear directly from the various laboratories as to the arrangements they are making.

May I suggest that if the arrangements are agreeable to you, you proceed to make the necessary plans to come to the United States and purchase air passage.

I remember with great satisfaction the very warm manner in which you greeted me in Milan and I want to thank you once again for your hospitality. I am looking forward to seeing you here and hope in some small way that I can reciprocate.

With best personal regards,

Sincerely yours,

Murray Goodman

MG:DL

Prof. Natta
Dr. B.L.Johnson
Dr. Vacca

November 15, 1963

Mr. Murray Goodman
Polytechnic Institute of
Brooklyn
333 Jay Street
Brooklyn 1 - N.Y. - USA

Dear Mr. Goodmann

Your kind cable expressing your participation in my joy was very gratefully received. Thank you for all the good words you wrote.

With my best regards.

G. Natta

ITALCABLE

LMS290 NP1587 TDN BROOKLYN NY 26/25 7 1059A

PER LA RISPOSTA
TELEFONATE AL N. 8838

PROFESSOR G NATTA POLYTECHNIC
INSTITUTE OF MILAN PIAZZALEONARDO
DEVINCI 32 MILAN

2120

TELEGRAMMA *via Italcable via Italo Radio*

1963 NOV 7 18

Spazio riservato agli estremi di ricevimento

PLEASE ACCEPT MY HEARTIEST CONGRATULATIONS ON THE WELL DESERVED
HONOR BESTOWED UPON YOU MURRAY GOODMAN

firmato

DEPARTMENT OF CHEMISTRY

April 15, 1963

Professor G. Natta
Isituto di Chimica Industriale
del Politecnio
Piazza Leonardo da Vinci
Milano, ITALY

Dear Professor Natta:

Professor Mark has very kindly shown me a letter from you dated April 5th. I would consider it an honor to present a lecture at your Institute on "Conformational Studies of Optically Active Polymers" either on May 28th or May 29th.

17.30

If you could indicate to me which day you prefer, I will then make plans accordingly.

Looking forward to hearing from you and with kindest regards,

Sincerely yours,

Murray Goodman

MG:DL

Murray Goodman

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

Am

September 30, 1963

Professor G. Natta
Direttore dell'Istituto di
Chimica Industriale
del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta,

It was indeed a great pleasure for me to see you again and I should like to take this opportunity to thank you very much for the cordial hospitality which you so graciously extended to me.

Please be assured that I sincerely appreciate your generousity and your thoughtfulness which helped to make my visit so pleasant and rewarding.

With warmest personal regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:gf

POLYMER RESEARCH INSTITUTE
H. F. MARK, DIRECTOR

March 18, 1963

Prof. Dott. Ing. Giulio Natta
Director of the Inst. of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Giulio:

Please permit me to thank you for informing us of the visit of Professor Corradini. It was indeed a pleasure for us to have Dr. Corradini with us. He gave a wonderful seminar. We look forward to seeing him many times in the future.

As you know, Professor Murray Goodman of our staff is working in the area of optically active polymers. During the week of May 20th he will be at the Moreton-hampstead Polymer Conferences in England. During the week of May 27 he will be in Italy. It would be a great honor for me if you could invite him to give a lecture either at Montecatini or at the Polytechnic. He has much interesting polymer stereochemistry to report and I am sure you would find his visit very rewarding. Since Dr. Goodman is at present trying to arrange his schedule, I hope it will be possible for you to inform us in this regard.

Mimi joins me in sending best wishes to both you and Rosita and we hope we can see you both in the near future.

Please accept my very kindest regards,

Sincerely yours,

Herman

HM:DL

H. Mark

POLYMER RESEARCH INSTITUTE

UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS. 01003

RICHARD S. STEIN
Director

Office: Room 167
Goessmann Laboratory
Phone 413 545-2615

December 11, 1963

Dear Colleague:

I am enclosing our latest schedule for the Polymer Research Discussion Group of the Polymer Research Institute of the University of Massachusetts. As always these talks are open to the public and your attendance is welcome. I would appreciate receiving your suggestions concerning speakers that may be of interest to you and would, of course, welcome any volunteers for speakers.

I am also enclosing a list of technical reports and reprints which are available in a large enough supply for distribution. If you wish copies of any of these, we would be happy to send them to you upon request.

Sincerely yours,

Richard S. Stein
Commonwealth Professor
of Chemistry

RSS:lw

Enclosures

POLYMER RESEARCH INSTITUTE
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS.

RICHARD S. STEIN
Director

Office: Room 167
Goessmann Laboratory
ALpine 3-3411, Ext. 615

February 12, 1963

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of February 7. We do not have a publication of the discussions which took place at our Polymer Discussion Group, but do have some reports which are based upon some of this work. I will send by ordinary mail a collection of reports and reprints which we have available.

We would be very honored to have you or any members of your laboratory visit us when you are in the United States. We have long admired the work of your group and would be very interested in maintaining closer contact.

With best regards.

Sincerely yours,

Richard S. Stein

Richard S. Stein
Commonwealth Professor
of Chemistry

RSS:cz

STAUFFER CHEMICAL COMPANY

380 MADISON AVENUE

NEW YORK 17, N.Y.

TELEPHONE
OXFORD 7-0600

Stauffer
CHEMICALS

CABLE ADDRESS
"STAUFCHEM"

January 10, 1963

Professor G. Natta
Instituto di Chimeca Industriale del Politecnico
Piazza Lenoardo de Vinci, 32
Milan, Italy

37

Dear Sir:

We were most pleased to see the announcement of your being named recipient of the 1963 International Award in Plastics Science and Engineering of the Society of Engineers.

In that the award is to be presented February 28 in Los Angeles at the Society's annual technical conference, we wish to extend a most cordial and serious invitation to visit Stauffer's Richmond Research Center in the neighborhood of San Francisco, to meet with our scientific staff and possibly give a seminar on any subject of your choice during this visit. We recognize this might be impossible for you because of other commitments you may have made by now during such a visit to the United States. If this is the case, we would be very appreciative of your suggesting a possible visit by a member of the Institute of Chemistry in Milan who might similarly honor our Richmond Research Center with a visit and lecture.

It is at the Richmond Center that we have developed our technology concerning $TiCl_3$ and I believe you might find such a visit interesting in that regard, and clearly we would be most honored if our people there had the opportunity to spend time with you or one of your associates. I hope we may hear from you in this regard.

Very truly yours,

F. W. MacMullen

F. W. MacMullen
Director of Research

DFM/jg

April 24, 1963

Dr.Murray Goodman,
Dept.of Chemistry,
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref.358/lv

Dear Doctor Goodman,

Thank you for your letter of April 15.
I wish to confirm you that Wednesday May 29 is a suitable date for your lecture entitled "Conformational Studies of Optically Active Polymers". You may deliver it at our Institute at 5:30 p.m.

Please, let me know whether we have to make yourself registered at a hotel in Milan or not.

With my kindest regards,

Giulio Natta

6.5.1963

Egr.Dr. SATTA
Società Montecatini

S e d e

Egregio Dottore,

facendo seguito alla mia telefonata, desidero informarLa che il 29 Maggio p.v. alle ore 17,30 presso il nostro Istituto, il Dr.Murray GOODMAN del Dipartimento Chimico del Politecnico di Brooklyn terrà una conferenza dal titolo :

"CONFORMATIONAL STUDIES OF OPTICALLY ACTIVE POLYMERS"

Come d'accordo, gli inviti dovrebbero essere fatti a nome della Società Chimica Italiana, Sezione Lombarda, e del Centro Nazionale di Chimica delle Macromolecole del C.N.R., Sezione I. A noi occorrerebbero N.100 inviti. (50 + 50)

RingraziandoLa, Le invio i migliori saluti.

R.Lamma

April 5, 1963

Prof.H.Mark, Director
Polymer Research Institute,
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn 1, New York (USA)

our ref.224/lv

Dear Hermann:

Thank you for your letter of March 18 and for the kind expressions you wrote about Prof.Corradini.

We shall be glad to meet Prof.Goodman and to hear his lecture at our Institute, when he comes in the week of May 27. If possible, I should like to know in advance the title of Dr.Goodman's lecture and the day foreseen for his visit and seminar.

Rosita joins me in sending you and Mimi kindest regards.

Giulio Natta

5 marzo 1963

ns.rif.162/eg

Prof. H. Mark
Polytechnic Institute of
Brooklyn
333 Jay Street
Brooklyn 1, New York (USA)

Caro Professor Mark,

La ringrazio vivamente per la Sua gentile lettera. Mi è spiaciuto moltissimo di non essere potuto venire a Los Angeles perchè è stato un grande onore per me l'avere assegnata la seconda Gold Medal SPE Award, tanto più che la prima medaglia del genere è stata assegnata a Lei. Ciò eleva il valore morale di tale premio.

Sono lieto che Lei abbia invitato Corradini a Brooklyn perchè so che Corradini desiderava vederLa durante il suo viaggio di ritorno da Los Angeles.

Molti cordiali saluti a Lei e Mimi anche da parte di Rosita.

G.Natta

February 19, 1963

Prof. H. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 1; N.Y.(USA)

our ref. 131/eg

Dear Professor Mark,

due to my state of health, I have been compelled to give up my plan to go to the Los Angeles Meeting and receive the S.P.E. award. My lecture will be read on my behalf by a co-worker of mine, Prof. Corradini.

On his way back, on the 6th or 7th of March, Prof. Corradini will go to New York: therefore he would mostly appreciate to come to Brooklyn, visit your laboratories, and if you like, give a Seminar on the "General Aspects of the Crystalline Structure of Stereo regular Polymers". Whatever in your opinion on this regard, please write to Prof. Corradini to Los Angeles (Statler Hilton Hotel), after February 24.

I mostly regret to miss this opportunity to come to the States.

Rosita joins me in sending you and Mimi kindest regards.

G.Natta

January 10, 1963

Dr. M. L. Huggins
Stanford Research Institute
Menlo Park, California (USA)

our ref. 17/eg

Dear Doctor Huggins:

Thank you very much for the kind words you expressed about my being named to receive the 1963 SPE award.

I also thank you for your kind invitation to come and visit the Stanford Research Institute and Stanford University. I do not know my shhedule yet. but, I am afraid, I shall not be able to accept your invitation.

Accept my sincere wishes for the New Year and my kindest regards.

G. Natta

April 27, 1964

Prof. Richard S. Stein,
Director
Polymer Research Institute,
University of Massachusetts,
Amherst, Mass. (U.S.A.)

Room 167, Goessmann Laboratory

Dear Professor Stein:

Thank you very much for kindly sending me the technical reports and reprints I had requested. They arrived here safely a few days ago.

With best regards,

Sincerely,

Giulio Natta

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK 21, N. Y.

CABLE ADDRESS: NYACSCI

6 December, 1963

Dear Member:

The accomplishments of the Academy during the year 1963 have served to further heighten its reputation and prestige for continuously achieving greater service to the Membership and to the world of science and science education. Our efforts to improve our organization in these directions have brought to us, at the year's end, a record in the total of our Membership and similarly in our total of publications, issued and distributed, as well as to place our financial support, through earned income, as the second largest in the Academy's history.

This was a program that required a major, coordinated action and courageous determination, since it resulted in added publication costs of $275,190.64 above those of 1962, to maintain an unusually extensive publication schedule on the same high level of quality, and thus, to keep abreast in the timing of publication dates that the demands and the importance of the data presented at the conference make for the resulting monographs.

Nineteen conference monographs and thirteen shorter monographs were published, making a total of 9,658 pages in the Annals, added to which the Transactions, Volume 25 (982) and The Sciences (384) brings the total pagination this year to 11,024 pages. Also, during this period, the Academy distributed to its Membership and to authors, exchange institutions, reviews, and other sources, a total of 1,870,946 separate publications, covering all of its Serials. This is a startling record of achievement, but we are pleased that such results are placing the Academy in the forefront as one of the outstanding publishers in the entire science field. An additional seven conference monographs and six small Annals will be published and distributed in November through January.

The Membership has a net gain of 1,265 for the year, which closed with a total of 17,514 Members on the rolls as of October 31, 1963.

The receipts from Membership dues are $408,819.85, a record for this account. Sales of publications, totaling $310,831.30, are $47,717.94 higher, an increase of 18% above the receipts on sales at the close of the fiscal year, 1962.

Feb.22, 1963

Dr.Richard S.Stein, Director
Polymer Research Institute,
University of Massachusetts,
Amherst, Mass. (USA)

our ref.125/lv

Dear Doctor Stein:

Thank you very much for your kind letter of Feb.12, and for your promise to send me reports based upon the discussions of your Polymer Discussion Group.

Also due to my state of health, I foresee I shall not come to the United States in a near future. However, it is quite possible that the opportunity will arise for someone of my co-workers. If so, I shall inform them about your wish to meet them.

Under separate cover, I send you some reprints of recent publication from this Institute.

Thank you again and kind regards.

Giulio Natta

530
544
554
558
559
564
575
~~581~~

iniziati: 15.3.63

Feb.7, 1963

Doctor R.S. Stein, Director
Polymer Research Institute,
University of Massachusetts,
Amherst, Mass. (USA)

Dear Doctor Stein:

Your schedule of the Polymer Discussion Group reached me only to-day. I notice that the topics under discussion are very interesting; therefore I would mostly appreciate your letting me know whether the discussions are published and whether it is possible to receive reprints of the papers.

Thank you very much and kind regards.

Giulio Natta

STAUFFER CHEMICAL COMPANY

Am

March 5, 1963

Professor Mazzanti
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Mazzanti:

I have received Professor Natta's letter of February 27 informing me that he will not be able to make his intended visit to the United States, and I am sorry to hear that he is in poor health.

Professor Natta did indicate in his letter, however, that you will be coming to the United States in his place some time in April, and I wish to extend to you a most cordial invitation to visit Stauffer's facilities, particularly our Richmond Research Center. If your schedule will permit such a visit, I would appreciate hearing from you at your convenience so that we will be able to make proper arrangements.

Yours very truly,

STAUFFER CHEMICAL COMPANY

F. W. MacMullen
Director of Research

WM:bm

Prof. Giulio Natta
Istituto di Chimica Ind.
del Politecnico
Milano, Italy

COPY

Ann -

February 27, 1963

Dr. F.W.MacMullen, Director
of Research
Stauffer Chemical Company,
380 Madison Avenue
New York 17, N.Y. (USA)

our ref. 154/eg

Dear Doctor MacMullen;

Following my letter of January 16, 1963, I wish to confirm that, unfortunately, my ~~doctors~~ physicians have discouraged me to make a voyage to the United States and therefore, I am obliged to renounce it.

I wish also to inform you that next April, on the occasion of ACS Meeting in Toronto, my co-worker, prof. Mazzanti, will go to the States. I think that, if you like it, he will come to see the Richmond Research Center. He will certainly have no time to hold a lecture but he will discuss ~~an~~ arguments of ~~common~~ mutual interest with the technicians of your Society.

Very sorry for not having the opportunity to visit your laboratories, I remain,

Sincerely yours

G.Natta

Jan.16, 1963

Dr.F.W.MacMullen, Director
of Research,
Stauffer Chemical Company,
380 Madison Avenue,
New York 17, N.Y. (USA)

our ref.37/lv

Dear Doctor MacMullen:

Thank you very much for your kind letter of Jan.10, 1963 and for your kind invitation to give a seminar at Stauffer's Richmond Research Center.

The time-schedule of my journey to the U.S. has not been defined yet, also because, I am afraid, I shall have to limit it due to my state of health.

Since I received very many invitations to give lectures during my visit to the United States, I cannot accept them all. Therefore, not to make differences, I have decided to give up all invitations.

If possible, I shall be very pleased to meet you and other chemists of the Richmond Research Center.

In the case that my health prevents me from coming to the States personally and I am replaced by a co-worker of mine, well informed about problems concerning the catalysis with $TiCl_3$, I will ask him to contact you in the U.S.

Thanking you very much again, I send you my kindest personal regards.

Giulio Natta

January 10, 1963

Dr. H.W. Coover
Tennessee Eastman Co.
Kingsport, Tennessee (USA)

Dear Doctor Coover:

I wish to thank you very much for the kind words you expressed about my being named to receive the 1963 International Award in Plastics Science and Engineering.

With my best regards, and wishes for the new year.

G.Natta

TENNESSEE EASTMAN COMPANY
DIVISION OF EASTMAN KODAK COMPANY
KINGSPORT, TENNESSEE

Cable Address
"TENEASTMAN"

December 17, 1962

Professor Giulio Natta
Polytechnic Institute of Milan
Milan, ITALY

Dear Professor Natta:

I was pleased to note in the recent CHEMICAL AND ENGINEERING NEWS that you have been named to receive the 1963 International Award in Plastics Science and Engineering of the Society of Plastics Engineers. It is a well deserved honor and recognition for your fundamental contributions to the science of macromolecular chemistry.

Congratulations.

Yours very truly,

TENNESSEE EASTMAN COMPANY

H. W. Coover

Research Laboratories

HWCoover
jhc

no prem

Dec.2, 1963

1037

Dr.George I.Fujimoto,
Albert Einstein College of Medicin
Yeshiva University,
New York, N.Y. (USA)

Dear Doctor Fujimoto,

As indicated in the Dec.1963 program of the New York Academy of Sciences, at the Symposium on the Chemical Binding, you will speak on "Unsaturation as Formulated in Aromatic and Metalloaromatic Compounds".

Since I cannot participate in the meeting personally, would you please send me a reprint of your lecture?

Thanking you very much again, I am

Sincerely yours,

G.Natta

USA

1964

CC: Mr. G. Curtis Pritchard
Dr. Mario Ottolenghi
Professor Gino Bozza

MAR 11 1964

ADVISORY COMMITTEE ON THE JOHN SCOTT AWARD
BOARD OF DIRECTORS OF CITY TRUSTS
PHILADELPHIA

OFFICE OF THE SECRETARY
559 WEYMOUTH RD.
SPRINGFIELD, DEL. CO., PA.
TELEPHONE
KI 2-2978

March 9, 1964.

Mr. Earl T. Crain
American Consul General
American Consulate General
Piazza della Repubblica, 32
Milan, Italy

Dear Mr. Crain:

Your letter of March 3 arrived today, together with one from Dr. Ottolenghi of the Chemore Corporation who has aided us in making arrangements for the Natta Presentation. The information, I believe, will enable you to complete the necessary arrangements for the Presentation: A copy of Dr. Ottolenghi's letter is enclosed.

Professor Gino Bozza, Rettore of the Polytechnic of Milan is evidentaly the person for you to contact.

The Presentation will take place at the ceremony you mention at the La Scala Opera House on April 3 and ten minutes have been set aside for the Scott Award Presentation about 11:00 a.m.

As I wrote last week, the Medal and Scroll were forwarded to you via Diplomatic Pouch on March 3. The check will be sent to you via air mail on March 23.

We will appreciate knowing of the safe arrival of these materials.

Thank you very much for your letter and interest in our behalf.

Very truly yours,

John W. Iliff, Secretary

JWI/mrl

CHEMORE CORPORATION

TELEPHONE
YUKON 6-7575

100 EAST 42ND STREET
NEW YORK 17, N.Y.

CABLE ADDRESS
"GABBROUSA"

9 Marzo 1964

Chiar.mo Signor
Prof. Ing. Gino Bozza
Rettore Magnifico del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

17 MAR 1964
R Cartella

La ringrazio della Sua gentile comunicazione del 3 marzo c.m. riguardante la data della cerimonia per il Centenario del Politecnico di Milano, con intervento del Presidente della Repubblica Italiana e la consegna del premio John Scott al Prof. Giulio Natta.

Ho subito comunicato quanto Ella mi scrive al sig. John W.Iliff segretario dell'Advisory Committee on the John Scott Award e Le saro' preciso circa le modalita' della consegna al piu' presto possibile.

Voglia gradire intanto i miei distinti saluti.

Mario L. Ottolenghi

Mario L. Ottolenghi

MLO:lep

cc: Mr. G. Curtis Fulchand
Dr. Mario L. Ottolenghi
Professor Gino Rezza

ADVISORY COMMITTEE ON THE JOHN SCOTT AWARD

BOARD OF DIRECTORS OF CITY TRUSTS

PHILADELPHIA

OFFICE OF THE SECRETARY
559 WEYMOUTH RD.
SPRINGFIELD, DEL. CO., PA.
TELEPHONE
KI 3-2978

March 9, 1964.

Mr. Karl T. Crain
American Consul General
American Consulate General
Piazza della Repubblica, 32
Milan, Italy

Dear Mr. Crain:

Your letter of March 3 arrived today, together with one from Dr. Ottolenghi of the Chemex Corporation who has aided us in making arrangements for the Natta Presentation. The information, I believe, will enable you to complete the necessary arrangements for the Presentation: A copy of Dr. Ottolenghi's letter is enclosed.

Professor Gino Rezza, Rettore of the Polytechnic of Milan is evidently the person for you to contact.

The Presentation will take place at the ceremony you mention at the La Scala Opera House on April 3 and ten minutes have been set aside for the Scott Award Presentation about 11:00 a.m.

As I wrote last week, the Medal and Scroll were forwarded to you via Diplomatic Pouch on March 3. The check will be sent to you via air mail on March 23.

We will appreciate knowing of the safe arrival of these materials.

Thank you very much for your letter and interest in our behalf.

Very truly yours,

John W. Iliff, Secretary

JWI/mcl

JA/ec.

POLITECNICO MILANO

IL RETTORE

Milano, 3 marzo 1964

4 MAR 1964

Egregio Signor
Ing. Mario L. OTTOLENGHI
Chemore Corporation
100 East 42nd Street

NEW YORK 17° (U.S.A.)

A seguito della precedente corrispondenza, sono ora in grado di informarLa che la cerimonia del Centenario si terrà qui a Milano al Teatro alla Scala il giorno 3 aprile con intervento del Capo dello Stato.

Come di intesa, durante la stessa Cerimonia potrà avvenire la consegna del Premio John Scott al Prof. Giulio Natta. Secondo il programma di massima ormai concretato con gli Uffici della Presidenza della Repubblica, la Cerimonia avrà inizio alle 10 e la consegna del Premio al Prof. Natta dovrebbe avvenire verso le 11.

Vi prego di volerci cortesemente dare qualche indicazione circa le modalità con le quali si prevede di effettuare la consegna del premio stesso, tenendo presente che nel quadro della cerimonia, a codesta consegna non potrà essere riservato più di una diecina di minuti.

Con distinti saluti.

(Gino Bozza)

p.c. Istituto di Chimica Industriale
SEDE

CC: Mr. G. Curtis Pritchard
Dr. Mario L. Ottolenghi-Chemore Corp.

ADVISORY COMMITTEE ON THE JOHN SCOTT AWARD

BOARD OF DIRECTORS OF CITY TRUSTS

PHILADELPHIA

OFFICE OF THE SECRETARY
559 WEYMOUTH RD.
SPRINGFIELD, DEL. CO., PA.
TELEPHONE
KI 3-2978

FEB 26 1964

February 24, 1964.

Mr. Earl T. Crain
Consul General
American Consulate General
Milan, Italy

Dear Mr. Crain:

We have not yet learned of the exact date of the first Centenary of the Foundation of the Polytechnic of Milan (early in April). However, as I wrote last fall, I am sending you now a copy of the Citation to be read at the presentation of the John Scott Award. This will permit ample time for the preparation of a translation.

Further, to aid in the preparation of an explanation of the Award, which would also be proper on the occasion, I am sending some prepared background data and a copy of a similar explanation made on the occasion of the presentation of the Award to Professor Lowry last December. In this connection it might be well to mention Guglielmo Marconi who received the Award in 1931.

Moreover, I doubt if listing the Advisory Committee members or their positions would be of interest to your audience.

We will advise you as soon as we learn dates, and the exact time, place and circumstances for the Presentation.

Very truly yours,

John W. Iliff, Secretary

JWI/mrl

Nov.20, 1964

Mr.E.C.Ashby,
Dept.of Chemistry,
Georgia Institute of Technology,
Atlanta, GA. (U.S.A.)

Dear Mr.Ashby:

I have learned from the October 1964 Program of the New York Academy of Sciences that you have delivered a communication on the "Composition of Grignard Compounds and the Mechanism of Their Addition to Ketones".

If possible, I would mostly appreciate your sending me a reprint of your paper.

Thanking you very much in advance, I send you my best regards.

Giulio Natta

Cartella John Scott

24.3.1964

Egr. Ing. Mario L. Ottolenghi
Chemore Corporation
100 East 42nd Street
New York 17, N.Y., U.S.A.

Caro Ingegnere,

La ringrazio per la Sua gentile lettera del 18.3.1964. Poichè i biglietti di invito alla Cerimonia della Scala non sono ancora pronti e temo che non Le possano giungere prima della Sua partenza, desidero confermarLe che tratterremo noi il biglietto per Lei che Le sarà consegnato al Suo arrivo a Milano.

La ringrazio molto per il Suo cortese interessamento lieto di poterLa rivedere presto a Milano.

Molti cordiali saluti.

Giulio Natta

CHEMORE CORPORATION

GENERAL REPRESENTATIVE OF MONTECATINI SOC. GENR. MILAN, ITALY

TELEPHONE
YUKON 6-7575

100 EAST 42ND STREET
NEW YORK 17, N.Y.

CABLE ADDRESS
"GABBROUSA"

18 Marzo 1964

Ill.mo Signor
Prof. Giulio Natta
Via Mario Pagano 54
Milano, Italy

Gent.mo Professore,

ho ricevuto la gradita Sua del 4 marzo c.m. e lettera pari data del Rettore del Politecnico, Prof. Gino Bozza con la quale mi avverte che la cerimonia per la consegna del premio John Scott avra' luogo il 3 aprile p.v. verso le ore 11 a.m. al teatro alla Scala, con l'intervento del Capo dello Stato.

Detti subito comunicazione a voce e per iscritto a Mr. Iliff e a Mrs. Armour a Filadelfia.

Mr. Iliff ha risposto con lettera di cui Le accludo fotocopia e penso che il console generale Carin abbia gia' preso contatto con il Rettore del Politecnico.

Sono molto lieto di comunicarLe che il conte Faina, presidente della Montecatini, mi ha autorizzato a venire in Italia ai primi di aprile per la consueta visita annuale alla Montecatini, in modo anche da poter presenziare alla cerimonia sopra menzionata ed assistere cosi' alla presentazione del premio John Scott.

Ho pertanto scritto al prof. Bozza lettera di cui Le accludo copia; pero' non essendo in possesso di un invito formale e non sapendo se cio' e' necessario, Le sarei molto grato se potesse gentilmente intervenire presso chi di dovere per permettermi di essere presente alla cerimonia della di Lei premiazione.

Pensando con molto piacere di poter rivedere presto Lei e la sig.ra Rosita in una fausta occasione Le invio intanto i miei migliori cordiali saluti.

Mario L. Ottolenghi

MLO:lep
all.

Mod. 1 (Ediz. Sup.)

Ministero della Pubblica Istruzione
DIREZIONE GENERALE PER L'ISTRUZIONE UNIVERSITARIA

Div. I^ - Pos. 23

Prot. N.° 3765

Roma, 15 MAG. 1964/96

Al Rettore del Politecnico di MILANO

Risposta al Foglio del
Div. Sez. N.°

OGGETTO: Prof. Giulio NATTA -
Invito dell'American Academy of Achievement.-

Con telespresso n.31/11831 del 21 aprile 1964, il Ministero degli Affari Esteri (D.G.R.C.) aveva dato notizia dell'invito, rivolto da parte dell'American Academy of Achievement, al prof. Giulio NATTA, ordinario di Chimica industriale in codesto Ateneo, di presenziare in Oceanside (U.S.A.) alla consegna di una targa d'oro concessagli in riconoscimento dei suoi meriti scientifici.

L'Ambasciata d'Italia a Washington ha ora qui inviato il telespresso n.203098 del 28 aprile 1964, con il quale rende noto di aver assunto, per il tramite del Consolato d'Italia in Los Angeles, informazioni sul conto dell'Accademia sopra citata, il cui risultato è stato tale da non consigliare l'accettazione dell'invito stesso.

Il Consolato testualmente conclude: "in considerazione della mancanza di concreti elementi sulla validità e la serietà dell'iniziativa - che appare quanto meno utopistica e nebulosa - si esprime il parere che l'accettazione dell'invito rivolto al prof. Natta non sia consigliabile nè giustificata".

Nel rimettere alla S.V. copia della lettera d'invito al prof. Natta, si prega la S.V. medesima di voler cortesemente esporre quanto sopra al professore stesso, facendo, altresì, presente che questo Ministero si associa al parere espresso dall'Ambasciata d'Italia a Washington e dal Consolato d'Italia in Los Angeles.

IL MINISTRO
Ulandure

POLITECNICO DI MILANO
18. MAG. 1964
N. Prot. 2475 Pos. VIII

COPIA CONFORME ALL'ORIGINALE
Milano, 19 MAG 1964
Il Direttore Amministrativo

American
ACADEMY OF ACHIEVEMENT

c/o Chamber of Commerce * Oceanside * California

Dr. Guillo Natta
Polytechnic Institute
Milan, Italy
c/o Embassy of Italy
Washington, D. C.

March 26, 196

Dear Dr. Natta:

In appreciation of your exceptional accomplishment in PLAST ENGINEERING, as recognized by the presentation of the International Award in Plastics Science and Engineering, th American Academy of Achievement extends a national guest of honor invitation to its third annual "Salute to Excellence" week-end, June 25-28, 1964, in cooperation with the Oceansi Chamber of Commerce and the U.S.M.C. at Camp Pendleton.

Fifty national guests of honor - Captains of Achievement in the sciences, the arts, the professions, business, educatio and public service - will each take the spotlight at the Banquet of the Golden Plate, Saturday evening, June 27, 196 to receive the Golden Plate Award as the "representative of the many who excel" in his great field of endeavor.

Several hundred California "Citizens of Achievement" and honor students will attend the formal affair to add their acclaim to the national honorees. The pageantry of the evening will be enhanced by a colorful presentation of U.S.M.C. history.

The Oceanside Chamber of Commerce is providing complimenta motel lodging, meals, and local transportation - including pickup at the San Diego airport by the Reception Committee for the national guests of honor (and wives).

We look forward to the pleasure and the honor of your participation in the "gathering of the greats."

Sincerely,

Hy Peskin

Hy Peskin, Executive Director
HP:njs
Encls

P. S. Your early response, ideally within two weeks, wil facilitate all arrangements. In the event of a tight schedule, we shall be delighted to have you with us for an part of the week-end program.

Am

AL MEG Aluminum Metallurgical Granules
Manufacturing
• POWDERS • FLAKES • GRANULES • GRAINED • GRANULATED
• GLITTER • SPHERES • SHOT • DEOXIDIZERS

P. O. BOX 6232,
KANSAS CITY 26, MISSOURI
Telephone: BE 1-3800 Area Code 816

April 6, 1964

Professor Giulio Natta, Director
Institute of Industrial Chemistry of the Polytechnic
Milan, Italy

Professor Natta:

I thought you would be pleased to receive the enclosed article from our newspaper.

Congratulations!

Do hope that you will see fit to give us a list of those companies that might be receptive to our ALUMINUM GRANULES making use of stereo-regular hydrocarbon polymers.

As I see it, GOOD would accrue to your licensees by having the lowest priced aluminum available for this process.

Hoping that I may hear from you as to the list of the hydrocarbon polymer users and wishing you the very best in the way of Good Health and continued Success.

In all friendliness,

ALUMINUM METALLURGICAL GRANULES

Ellis G. Bradley

Ellis G. Bradley

EGB:yai

P.S. Enclosed is a sample of our M30 ALUMINUM GRANULES which Montecatini has been purchasing and using.

Americo

All Souls Church of Brooklyn

(Universalist)

1/24/'64

MINISTER
CORNELIUS GREENWAY, D.D.
961 OCEAN AVENUE
BROOKLYN, N. Y. 11226
Phone INgersoll 9-7287

Prof. Giulio Natta
1963 Chemistry Nobel Laureate
Milan — Italy

Dear Doctor Natta:

These last forty-three years I have been collecting the signed photographs of the men and women who have earned the Nobel Prize. Presently I have more than 300 such signed photographs.

Most of the photographs are signed with their names, the year they earned the Nobel Award and the field in which this coveted honor was won.

I do hope you will have not too great a difficulty reading my writing. I am diabetic and my eyesight as a result is very poor. I am like a bird with a broken wing but I have not lost my song.

The enclosed check is to pay for the return postage. The least I can do is to pay for it and to furnish the photograph.

I wish you, Sir, a very happy New Year. Would you ask your son Giuseppe also to sign it, please? You two certainly look like a team.

Hoping that my favor will be granted me, I am

Sincerely yours

Cornelius Greenway

Jedrk 2 3/6/64

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104

John Harrison Laboratory of Chemistry

ELECTROCHEMISTRY LABORATORY

May 11, 1964

Dear Dr. Natta,

I write to you in the following circumstances. Recently I wrote a paper called "Electrocatalysis." It was a review of a relatively infant subject, - the investigation of the possibility of increasing the velocity of the reactions on electrodes by investigating the rate-determining step of the overall electrode reaction, and then, thereafter, attempting to utilize this knowledge as a guide line for the development of better electrode materials. Such fundamental research would, for example, be used in electrochemical energy conversion processes.

A comment (enclosed) has been written on my paper by Dr. M. Boudart. In essence, the comment suggests that there is no particular use on this to be gained from carrying out mechanism investigations in catalysis.

My purpose is, then, to turn to you as a well known research worker in the field of the mechanism of catalysis and ask you if you agree with Professor Boudart's opinion, which seems to me to be unduly defeatist.

In particular, can you quote any series of investigations, preferably recent, where increase of knowledge of the mechanism of a chemical reaction led to the development of an improved catalyst.

I look forward with great interest to your reply.

Sincerely yours,

J. O'M. Bockris

John O'M. Bockris

JO'MB:jjl

Dr. G. Natta
Institute of Industrial Chemistry
Polytechnique of Milano
Milano, Italy

Comments on a paper by J. O'M. Bockris and H. Wroblowa entitled, "Electrocatalysis", to be presented at the AGARD Meeting in Cannes, March, 1964.

by M. Boudart, University of California, Berkeley.

Studies in electrocatalysis have been few. Many are very recent. Twenty out of seventy-two references in the present review have not yet been published. By contrast in contact catalysis, fundamental studies have been numerous since the turn of the century. Nobel prizes for work in the area have been awarded to Haber, Langmuir, Sabatier, Bosch and Bergius, Ziegler and Natta.

Because of the similarity of problems in catalysis and in electrocatalysis, it is therefore interesting to survey rapidly the more mature field of catalysis in the hope of finding some guide lines that may help in the development of the newer discipline. In particular, let us consider in turn the following four questions: What are the properties of a good catalyst? What are catalysts made of? What is the history of typical catalysts? What is the theory behind them?

From a scientific viewpoint, the properties of interest are activity and selectivity. In practice however, these are far from sufficient. Resistance to poisoning, stability with respect to maintenance of surface area, mechanical and thermal resistance are essential. While it is not sometimes too difficult to prepare an experimental catalyst with adequate activity and

selectivity, it is frequently very difficult to obtain one that will have a sufficiently long life. As an example, let us cite the current problem of the development of a catalyst for catalytic mufflers to treat automobile exhaust. As a consequence, even if an adequate theory of catalyst activity and selectivity existed, it would not be of decisive help in the development of a practical catalyst.

Very few catalysts are simple metals or alloys. Most formulations consist of semiconducting oxides or sulfides of transition metal elements or transition metals themselves supported on a large surface area support such as silicagel or alumina. The supports are usually not inert but have a chemical function in the reaction itself or in the dispersion of the metal. Finding the proper support is frequently the key to commercial success in catalysis, as for instance in reforming on platinum catalysts in the oil industry. The development of new supported metal electrodes would seem to be the most urgent problem of research in electrocatalysis.

It is also instructive to look at older catalytic processes to see how the catalyst has evolved over long periods of time. Of particular relevance is a process where, as in the case of electrocatalysis for power production, activity alone is essential while selectivity is not. Such a process is the synthesis of ammonia from nitrogen and hydrogen. Here because elevated temperatures must be counterbalanced by costly high pressures in order to fight an unfavorable thermodynamic equilibrium, it

is essential to bring the temperature of the process to as low a level as possible. The situation is very similar in electrocatalysis.

After more than fifty years of fundamental and applied research on ammonia catalysis in all the technologically and scientifically developed countries of the world, the temperature of the process is still shockingly high, in the vicinity of 450°C. Moreover, the catalyst formulation consisting of metallic iron promoted with small quantities of refractory oxides is still essentially the same as that found empirically before the first World War. Recent progress has been made mostly in the engineering of the process and in reactor design in particular. This disturbing situation raises a fundamental question of scientific interest and of practical interest in catalysis or electrocatalysis. Given a reaction path, what is the limit in activity that can be reached with any material? Is there such a limit and why? That such a limit exists is borne out by the history of many catalytic processes where progress is important in the early stages but soon creeps to a very slow rate of growth. It appears very doubtful to me for instance that a practical ammonia catalyst using the currently used sequence of elementary steps will be found with an activity per unit surface area exceeding by as much as a factor of ten that of existing catalysts. It would be of considerable interest to know whether such a statement, speculative as it may be, can be made today in any area of electrocatalysis.

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico – Milano

74 Rowan Road
Chatham, New Jersey (U.S.A.)
December 15th 1963

My dear Professor Natta:

May I be one of the many that have extended congratulations to you for the great honor bestowed upon you as one of the recipients of the Nobel Prize in Chemistry. It was a distinction justly deserved after your persistent labors in pioneering in a new field starting with fundamental research and culminating into great industrial applications.

I had the pleasure last week of visiting in Boston with Dr Maria (Bentivoglio) Baldeschi, a colleague of mine, as you may recall, when I headed the Technical Information center of the Celanese Corp. in Summit NJ. She is living with her niece, Beatrice, who is attending college there. They showed me a clipping of an Italian newspaper with a picture of your family on the occasion of the congratulations extended to you by President Segni of Italy.

Needless to say, we in America who have had the pleasure of personally knowing you, are extremely proud of your achievements, and we pray that despite your unfortunate illness, you will have many more years to devote to the further progress of material well-being for humanity.

With the kindest and most profound admiration

Sincerely yours Amerigo F Capuzzi

January 23, 1964

1625 EYE STREET, NORTHWEST
WASHINGTON 6, D.C.

Dear Prof Natta:

In the remote event that you have not seen the attached it may interest you. So much is still to be learned.

To you and Mrs Natta, Louise and I send our best.

Oscar Cox

ricevuta anche una
la booklet
per Parkinson's Disease
Foundation di New York

Natta, an Italian Scientist, Will Get American Award

The John Scott Award of the Philadelphia Board of City Trusts will be presented to Prof. Giulio Natta, world-famous Italian scientist and Nobel prize winner, in Milan on April 3.

The presentation will be made by the American Consul General to Italy, Earl T. Crain.

Dr. Natta, who is the director of the Institute of Industrial Chemistry of the Polytechnic of Milan, is receiving the Scott Medal for the invention of a process for making stereo-regular (isotactic, syndiotactic and other) hydrocarbon polymers.

The development of Prof. Natta's work was sponsored by Montecatini, Milan. The fundamental research was carried out in the laboratories of the Milan Polytechnic Institute and the study of applications was carried out in Montecatini's own laboratories.

CHEMORE CORPORATION

18 Marzo 1964

Chiar.mo Signor
Prof. Ing. Gino Bozza
Rettore Magnifico del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Faccio seguito alla mia lettera del 9 marzo c.m. per accluderLe copia di lettera che Mr. John W. Iliff, segretario dell'Advisory Committee on the John Scott Award ha scritto a Mr. Earl T. Crain, console generale americano a Milano.

Suppongo che il console Crain abbia gia' preso contatto con Lei e che anche Mr. Iliff Le abbia scritto come si proponeva.

Lo scrivente ha potuto ottenere di partire per l'Italia in aereo il 1° di aprile p.v. in modo da poter presenziare, se possibile, alla cerimonia per la commemorazione del centenario del Politecnico di Milano che avra' luogo il 3 aprile p.v.al teatro alla Scala e cosi' anche assistere alla presentazione del John Scott Award al prof. Natta.

Sperando di avere il piacere di poterLa conoscere a Milano mi e' gradito l'incontro per inviarLe i miei distinti saluti.

Mario L. Ottolenghi
Vice Presidente

MLO:lep

cc: Prof. G. Natta

CHEMORE CORPORATION

GENERAL REPRESENTATIVE OF MONTECATINI SOC. GEN. - MILAN, ITALY

TELEPHONE
YUKON 6-7575

100 EAST 42ND STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"GABBROUSA"

February 26, 1964

Gent.mo Signor
Prof. Giulio Natta
Via Mario Pagano 54
Milano, Italy

Carbella John Scott

Gent.mo Professore,

Le accludo fotocopia di lettera ricevuta da Mr. John W. Iliff, segretario del "John Scott Award Advisory Committee".

Se la data della cerimonia al Politecnico fosse nota, Le sarei grato di volermela comunicare per indicarla a mia volta a Filadelfia.

Mi e' gradita l'occasione per inviarLe cordiali saluti ed auguri.

Mario L. Ottolenghi

Mario L. Ottolenghi

MLO:lep
all.

May 21, 1964

Mr.Hy Peskin, Executive Director
American Academy of Achievement,
c/o Chamber of Commerce,
Oceanside, California (U.S.A.)

our ref.367/lv

Dear Mr.Peskin:

Thank you very much for your kind letter of March 26, which reached me only to-day, having been forwarded to me by the Italian Dept. of Education, through the Embassy of Italy in Washington.

I mostly regret informing you that, due to my state of health, it will be impossible for me to come to the U.S. next June. I have also been compelled to give up going to Brooklyn, where the President of the Polytechnic Institute, on June 9, will award me with a h.c.doctorate in absentia.

With sincere thanks, I send you my kindest regards.

Giulio Natta

Richard Baron 17034 Livorno Dr., Pacific Palisades, Calif.

June 25th, 1964

Secretary to Professor Giulio NATTA
Polytechnic Institute
Milan, Italy

Dear Sir:

Ever since I had the great pleasure and honour of personally meeting Professor NATTA several years ago, I have been very much interested in reading about his views and of his notable research with macromolecules.

I am making a collection of pictures of prominent chemists and would appreciate it very much if Professor NATTA would personally autograph the small enclosed photograph for me.

If the Professor has available a superior or larger portrait than that enclosed and would care to make a substitution, I would indeed be grateful as this is the best I have been able to locate after much searching.

Sincerely yours,

Richard BARON, Ph.D.
Professor of Chemistry

AMERICAN CHEMICAL SOCIETY

ALDEN H. EMERY • EXECUTIVE SECRETARY

1155 SIXTEENTH STREET, N.W., WASHINGTON 6, D.C., REpublic 7-3337

FINANCIAL DIVISION
Robert V. Mellefont
TREASURER

NOVEMBER 18, 1963

ISTITUTO DI CHIMICA INDUSTRIALE POLITECNICO
MILANO, ITALY

ATTN: DR. ROSSANA LAMMA

DEAR DR. LAMMA:

WE HAVE ON FILE AUTHORIZATION FOR THE PAYMENT OF THE PAGE CHARGE FOR THE ARTICLE APPEARING IN INORGANIC CHEMISTRY, VOLUME 2, NO. 4, PAGES NUMBERED 721-723.

ACCORDING TO OUR RECORDS WE HAVE NOT RECEIVED YOUR REMITTANCE FOR THE AMOUNT OF THE INVOICE ENCLOSED. PLEASE ACKNOWLEDGE AND LET ME KNOW WHEN TO EXPECT PAYMENT.

VERY TRULY YOURS,

KENNETH C. BARNES
CONTROLLER

4/2/64

KCB:CEE

ENCLOSURE

April 29, 1964

American Petroleum Institute,
Data Distribution Office,
Texas A & M University
A & M Press
College Station, Texas (U.S.A.)

Gentlemen:

I wish to thank you very much for kindly sending us the Infrared Spectral Data, the Mass Spectral Data and the Nuclear Magnetic Resonance Spectral Data, Suppl. for the period 7-1-63 to 12-31-63.

Very truly yours,

Giulio Natta

July 6, 1964

Dr.Richard Baron,
17034 Livorno Dr.,
Pacific Palisades, Calif. (USA)

Dear Doctor Baron:

Professor Natta, presently absent from Milan, charged me to thank you for your letter of June 25 and to send you a signed picture.

Professor Natta reciprocates kind regards.

the secretary

Encl/

Mod. 30 - Ediz. 1963-64

MODULARIO Telegr. 61

GENEVE

L'Amministrazione non assume alcuna responsabilità civile in conseguenza del servizio telegrafico.

COL 32 15

INDICAZIONI D'URGENZA	Ricevuto il ..... 19..... ore ..... RICEVENTE		*Le ore ... corrispondente al tempo medio dell'Europa Centrale. Nei telegrammi ... romani, il primo numero ... dopo il nome del luogo di ... ata quello del telegramma; il secondo quello delle parole, gli ... data e l'ora e i minuti della presentazione.*				Spazio d'ufficio
Qualifica	DESTINAZIONE	PROVENIENZA	NUM.	PAROLE	DATA DELLA PRESENTAZIONE		Varie indicazioni eventuali d'ufficio
					Giorno e mese	Ore e minuti	

1964 AGO 5 1913 2

6 8

Poligr. Stato V.G.

392 GENEVE 22212178 25 6/8 1916

AGREE SEPTEMBER 15 RECEIPT PAPER TEHERAN CONFERENCE ALTERNATES ACCEPTABLE - BEREDJICK UNATIONS NEWYORK +

Flash +

Conference Teheran Ann.

July 31, 1964

Mr. N. Beredjick,
Research and Evaluation Div.
Centre for Industrial Devp.
United Nations
New York (USA)

our ref. 522/lv

Dear Mr. Beredjick:

Thank you very much for your letter of July 3. I have to inform you that there will be a change in our participation in the United Nations Inter-Regional Conference on the Development of Petrochemical Industries in Developing Countries. In fact, prof. Mazzanti, contrary to what foreseen at first, will be unable to come to Teheran during the period of the Congress. Therefore, if I cannot participate in the Conference personally, I propose that our lecture be read either by prof. G. Crespi or by prof. G. Dall'Asta both of which are among my best co-workers.

Herewith enclosed, I send you the summary of our paper. However, I mostly regret informing you that I will be unable to send you the completed manuscript before Sept. 15, 1964. Please, let me know whether our lecture can be accepted, in spite of our delay in sending the text to you. To avoid further waste of time, I will send you the text both in English and in French.

With kindest regards.

G. Natta

Encl/

July 14, 1964

Dr.John O'M.Bockris,
John Harrison Laboratory of
Chemistry,
Electrochemistry Laboratory,
University of Pennsylvania
Philadelphia 19104 (U.S.A.)

our ref.350/lv

Dear Doctor Bockris:

I apologize for answering your kind letter of May 11 only now. Since I do not know your paper on electrocatalysis, I would mostly appreciate your sending me either a reprint or a copy of it.

In my opinion, Dr.Boudart's statements could have been accepted 20 years ago; now, many recent examples show that deep studies, and in particular kinetic studies on the reaction mechanism led to a considerable progress both in the improvement of the catalysts and in their mode of employ. I can make a number of examples even if I consider only the rather limited field of the catalytic processes studied in this Institute.

The detailed study of the catalysts for the synthesis of methanol allowed us to interpret the function of promotors, and to obtain much more selective catalysts than those previously known, and which make it possible the industrial production of purer methanol with higher yields.

The study of the adsorption processes and adsorption equilibria of reactive gases allowed to establish that the highest reaction rates are obtained for non stoichiometric compositions between H_2 and CO. It made it also possible to improve yields and to reduce the secondary reactions, using a synthesis gas containing a H_2/CO ratio of about 6, instead of the stoichiometric value of 2.

Another example is given by the oxosynthesis reaction, which was accidentally found by Dr.Röhlen of Ruhr Chemie (Germany), and attributed to the metal cobalt used in the Fischer-Tropsch synthesis. Investigations done by us on catalysts, especially from the kinetic point of view, allowed us to establish that the actual catalyst is a cobalt hydrocarbonyl $[HCo(CO)_4]$, which is formed by reaction of CO and of H_2 with metal cobalt.

./.

The use of preformed Co carbonyls led to substantial changements and simplifications, which had been foreseen by us in laboratory and then successfully employed in big industrial plants. Also in this case, it resulted more advisable to operate with a ratio CO/H_2 lower than 1, because high partial pressures of CO reduce the reaction rate of the reaction:

$$RCH{=}CH_2+CO+H_2 \longrightarrow RCH_2CH_2CHO$$

This was found by us in laboratory; the causes of it were found to be due to the competition between CO and olefin in the formation of an intermediate complex of the olefin with the catalyst; the reaction rate depends on the concentration of it.

The third field of research I have dealt with concerns the stereospecific polymerizations; this has been a systematic and not an empyrical study, which allowed, for instance, to prepare syndiotactic polypropylene in the presence of homogeneous catalysts different from those used for the production of isotactic polymer.

The first research works on the stereospecific catalyst led to the production of a crude polymer, which is not sterically very pure.

It was the ~~kinetic~~ detailed study, in particular by kinetic means, and with the help of roentgenographic methods that allowed to prepare catalysts having a very high stereospecificity.

Also in the field of the polymerization of diolefins, in particular of ditactic polymers, important results were obtained from scientific research, and from theoretical presuppositions, which enabled us to solve problems concerning the preparation of polymers having high stereoregularity with high yields.

Here I have reported only a few examples of research done at my Institute, but I am convinced that (in contrast to what done for the catalysts proposed more than 50 years ago, e.g. for the synthesis of ammonia) the knowledge on catalysis is presently so increased to allow practical solutions deriving from mainly theoretical studies.

With kindest regards,

Sincerely yours,

Giulio Natta

FROM: A. F. Caprio Chatham ~~Summit~~, N. J.

TO: Professor G. Natta Dec 16 1963

Dear Dr. Natta.

I hope that some day I shall be able to return to Italy and visit with you. Perhaps you will allow me to present some lectures in English to students and members of your faculty on various subjects of possible interest to them, such as:

1.) The United States Patent System — How patents are applied for and prosecuted.

2) Technical Information Records — How they are stored and retrieved

3.) Imitation of Mother of Pearl. How it is produced in the laboratory (with demonstration)

(over)

These talks, I thought, might afford an opportunity to your students who have studied English to hear this language spoken by a chemist of Italian origin. It will be a pleasure and distraction I shall enjoy.

A. F. C.

The Catholic University of America
Washington 17, D. C.

DEPARTMENT OF CHEMISTRY

February 4, 1964

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milan, Italy

Dear Professor Natta:

Pardon my delay in answering your letter of December 17, but I have been recuperating from a case of pneumonia during the last month. My address before the New York Academy of Sciences is to be published soon in the Transactions of the New York Academy of Sciences. I would be most pleased to send you a reprint of the paper as soon as I receive my supply.

May I take this opportunity to express the great admiration which I have for your manificent contributions to organometallic and high polymer research.

Sincerely yours,

John J. Eisch

John J. Eisch
Associate Professor of Chemistry

JJE/dt

Recent unpublished

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

17/7/64

593

Professor Giulio Natta
Istituto di Chimica Industriale
Politecnico
Milano.

Caro Professore,

Le scrivo per tre diversi motivi. Innanzi tutto desidero ancora ringraziarLa per avermi consigliato e guidato nel conseguimento della docenza. Spero di poter fare onore al titolo ed al riconoscimento che mi sono stati concessi.

Volevo inoltre inviarLe alcuni manoscritti recenti in uno dei quali penso che anche il Prof.Moraglio possa essere interessato.

Infine volevo dirLe che ho deciso di passare in Europa il prossimo anno accademico con residenza presso l'Istituto di Fisica dell' Universita' di Genova (Prof.Borsellino) dove ho anche accettato l'incarico di macromolecole biologiche. Queste decisioni derivano dal fatto che ormai la parte principale delle mie ricerche e' orientata nel campo della biofisica dove,tuttavia, la mia cultura e' piuttosto limitata. Penso quindi che sia l'insegnamento,sia un anno in Europa (durante il quale oltre che nell'Istituto del Prof. Borsellino passero' qualche mese presso laboratori di biologia in Israele ed in Svezia) possano avere benefici effetti.

Spero di poterLa rivedere presto. Con molti devoti e cordiali saluti anche alla Signora Natta,

Alberto Ciferri

(A.Ciferri)

Informare eventuale dopo ancora esaminando i lavori

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

28 Gennaio 1964

Professor Giulio Natta
Istituto Chimica Industriale
Politecnico
Milano.

Caro Professore,

La ringrazio vivamente per la Sua gentilezza. Ho spedito per via aerea un plico contenente copie dei lavori,etc. ai Professori Baccaredda,Corradini,Danusso e Moraglio. Lei dovrebbe gia' essere in possesso del plico che Le mandai nello scorso Agosto,quando presentai la domanda al Ministero. Se questo fosse stato smarrito prego la Sua Segretaria d'informarmi e ne inviero' un altro.

La ringrazio ancora e La prego di scusare la mia negligenza.

Nell'attesa di rivederLa presto Le invio i miei migliori saluti.

(Alberto Ciferri)

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

Professor Giulio Natta
Istituto di Chimica Industrale
Politecnico
Milano.

17 Gennaio 1964.

36

Caro Professore,

non avendo ricevuto alcuna notizia dal Ministero della Pubblica Istruzione riguardante la mia domanda per l'abilitazione alla libera docenza, ho riletto attentamente la copia della Gazzetta Ufficiale inviatami dal Dr. Pasquon. In essa noto, con una certa preoccupazione, che avrei dovuto seguire sulla Gazzetta stessa i successivi annunci riguardanti il concorso, particolarmente i nomi dei professori cui inviare le copie dei lavori.

Io avevo deciso di partecipare al concorso quest'anno ma mi domando ora se non sia gia' troppo tardi. Non voglio darle inutili preoccupazioni, La prego soltanto di passare questa mia lettera a quel Suo Collaboratore che intende presentarsi al concorso, colla preghiera d'informarmi della situazione attuale della cosa.

La ringrazio vivamente e le porgo i miei cari e devoti saluti.

Suo
Alberto Cifferri

Compton's
Pictured Encyclopedia
FIRST IN QUALITY

F. E. COMPTON & COMPANY
COMPTON BUILDING • 1000 NORTH DEARBORN STREET • CHICAGO 10, ILLINOIS

November 29, 1963

Office of Information
Polytechnic Institute of Milan
Milan, Italy

Dear Sirs:

Our encyclopedia wishes to include in our current edition an entry of Giulo Natta, the member of your staff who recently was awarded the 1963 Nobel prize in chemistry.

Would you be so kind as to furnish us with some biographical information? I would particularly like to know Dr. Natta's birthdate and birthplace, his education, and highlights of his career.

Thank you for your cooperation.

Cordially,

Laura D. Birg

(Mrs.) Laura D. Birg
Staff Editor
Fact-Index

Feb.19, 1964

Prof.A.F.Caprio,
74 Roman Road,
Chatham, New Jersey (USA)

our ref.109/lv

Dear Professor Caprio:

Thank you very much for your kind letter of Dec.15, and excuse my delay in aswering you.

I perfectly remember my meeting you at the Celanese Laboratory, New Jersey: you were introduced to me by Mrs.Maria Baldeschi Bentivoglio, I met again in Italy more recently.

With regard to your lecture on the U.S. patent system, I think that the Polytechnic Institute is not a suitable place where to deliver it.
I have spoken of it with Dr.G. de Varda (Management of the Patent Dept., Montecatini, S.p.A., Largo Donegani 1-2, Milano); he would suggest you to give your lecture in a hall of the Montecatini premises, so that a great number of the staff of that department will be present, being interested in it.

Please, inform Dr.DeVarda directly, with some advance, on when you can give your lecture.

With my kindest regards,

Giulio Natta

Ann

May 4, 1964

Prof. John J. Eisch,
Dept. of Chemistry
The Catholic University of America
Washington, D.C. 20017 (USA)

Dear Professor Eisch,

The issue of the transactions of the New York Academy of Sciences containing your communication on the "Chemical Consequences of Unsaturation in Organoaluminum Compounds" was very gratefully received.

I wish to thank you very much for your kindness.

Kindest regards.

G. Natta

Feb.17, 1965

Prof.John J.Eisch,
Dept. of Chemistry,
The Catholic University of America,
Washington [redacted], D.C. (U.S.A.)
(20017)

Dear Professor Eisch:

Thank you for your letter of Feb.4 and for your offer to send me, when available, a reprint of your address before the New York Academy of Sciences.

I was sorry to hear about your illness and do hope you have fully recovered from it. Accept my sincerest wishes.

Sincerely yours,

Giulio Natta

Giulio Natta
Pres. of the Pontifical Academy of Sciences

16.11.1964

Egr. Prof. A. CIFERRI
Chemstrand Research Center Inc.
Research Triangle Park
Box 731, Durham - North Carolina
U.S.A.

ns. rif. N. 593/rl

Caro Ciferri,

La ringrazio per i manoscritti che mi ha inviato.

Apprendo con piacere che Lei ritorna in Italia; penso che potrò vederla più frequentemente che in passato.

La specializzazione biologica è certamente uno dei campi più interessanti della chimica macromolecolare.
Non so però che vantaggi possa darle per la sua carriera lavorare in un Istituto di Fisica, dato che i principali problemi biologici sono soprattutto chimici e chimico-fisici più che strettamente fisici.
Per quanto i fisici tendano ad allargare la loro zona di influenza (vedi fisica dei solidi e la fisico-chimica in generale) temo che non sia facile che possano disporre in breve tempo di cattedre di fisica biologica.

Molti cordiali saluti.

G. Natta

Dec.17, 1964

Mr.J.J.Eisch,
The Catholic University,
Washington, D.C. (U.S.A.)

Dear Mr.Eisch:

The Monthly Program (Dec.1964) of the New York Academy of Sciences reported that you had presented a communication on the "Chemical Consequences of Unsaturation in Organoaluminum Coumpounds".

I would mostly appreciate your sending me a reprint of your paper, if available.

Thanking you in advance, I am,

Sincerely yours,

Giulio Natta

22 gennaio 1964

Dr.Alberto Ciferri,
Chemstrand,
Research Center, Inc.
Research Triangle Park,
Box 731, Durham, North Carolina

ns.rif.36/lv

Caro Dottor Ciferri,

Credevo che Lei prima di partire per l'America si fosse informato delle modalità degli esami di libera docenza. Poichè la Commissione è costituita da molte persone che io conosco, La consiglierei di presentarsi quest'anno e dovrebbe inviare subito per via aerea, una copia dei suoi lavori a ciascun commissario di cui le unisco l'indirizzo, insieme con il suo curriculum.

- Prof.Mario Baccaredda, Istituto Chimica Industriale e Applicata, Università, Pisa.
- Prof.Paolo Corradini, Istituto Chimica Generale e Inorganica, Università, Napoli, Via Mezzocannone 4.
- Prof.Ferdinando Danusso, Istituto Chimica Industriale, Politecnico, Milano, P.za L. da Vinci 32.
- Prof.Giovanni Moraglio, idem
- Prof. Giulio Natta, idem

Poichè dal Ministero ho ricevuto l'elenco dei candidati, tra i quali c'è il suo nome, devo ritenere che la sua domanda è stata accolta dal Ministero. Traii miei assistenti si presentano il Dr.Dall'Asta ed il Dr.Valvassori, ai quali può rivolgersi per ulteriori notizie.

Spero che il ritardo nell'invio delle pubblicazioni non rappresenti un inconveniente, se Lei Le invia subito.
La data prevista dal Ministero per l'esame era ai primi di marzo, ma io ho già scritto chiedendo un rinvio al 9 aprile. Comunque la data Le verrà comunicata dal Ministero stesso, ma per guadagnare tempo gliela telegraferò io stesso.
Spero di rivederLa presto, e le invio molti cordiali saluti.

G.Natta

January 20, 1964

Ans

Mrs. Laura D. Birg, Staff Edito
E.E.Compson & Co.
1000 North Dearborn Street
Chicago 10, Illinois

Dear Mrs. Birg:

According to your letter of November 29, 1963, I herewith send you a publicity 'hand-out' to be included, as you say in your letter, in your "Pictured Encyclopedia" issue.

Best regards and best wishes.

(Prof. G. Natta)

Chemore
Cerbello John Scott

4.3.1964

Egr. Dr. Ing. M. L. Ottolenghi
Chemore Corporation
100 East 42nd Street
New York 17 - N.Y. - U.S.

ns. rif. N. 157/rl

Caro Ingegnere,

La ringrazio molto della Sua gentile lettera del 26 u. s.

Come Le è già stato comunicato direttamente dal Rettore del Politecnico, la Cerimonia per la consegna del Premio John Scott è stata fissata per il giorno 3 Aprile. Penso che Lei avrà già informato della cosa il Comitato del Premio.

Grazie e molti cordiali saluti.

Giulio Natta

Jan.28, 1964

Mr.Oscar Cox,
1521 New Hampshire Ave. N.W.
Washington D.C. (U.S.A.)

Dear Mr.Cox,

Thank you very much for your letter and for the booklet you kindly sent to me.

Best wishes and kindest regards to which my wife joins.

Giulio Natta

University of Notre Dame
Notre Dame, Indiana

Department of Chemistry

April 13, 1964

Professor Giulio Natta
Instituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vince, 32
Milan, Italy

Dear Professor Natta:

I want to thank you again for inviting me to your institute and for the very generous arrangements you made for my trip to and stay in Milan.

I was sorry, of course, that there was only a brief opportunity of meeting you personally, but your coworkers - expecially Drs. Farina and Porri - took excellent care of me and I was very much interested by the chemical problems they had to discuss. I hope that my visit and lecture, in turn, provided some stimulation for the members of your institute.

Again, many thanks for your hospitality.

Sincerely yours,

Ernest L. Eliel

Ernest L. Eliel

ELE:mc

P.S. I was sorry not to find you in the best of health and wish you improvement.

Ell

University of Notre Dame
Notre Dame, Indiana

Department of Chemistry

March 9, 1964

Professor Giulio Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milan, Italy

Dear Professor Natta,

Thank you very much for your letter of March 6th. I would appreciate it very much if you could make hotel reservations for me for April 9th and 10th.

I am, of course, extremely sorry that I shall not have a chance to meet you but I am looking forward to making the acquaintance of Professor Farina and Professor Pasquon.

I will write to Dr. Berti at Pisa to see whether there is any possibility of my calling there, although in view of the shortage of time, this may be difficult.

Whatever honorarium you decide on to cover my travel and living expenses will, of course, be satisfactory.

prenotato
Manin
Postre spese
a 13/marzo

Sincerely yours,

Ernest L. Eliel

ELE:evw

Ernest L. Eliel
Head, Department of Chemistry

University of Notre Dame
Notre Dame, Indiana

Department of Chemistry

Fonini

February 28, 1964

Professor Giulio Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta,

Thank you very much for your letter of February 19th inviting me to visit your laboratory. I am certainly very much honored by your invitation.

I have delayed a little in answering because my duties as Head of the Chemistry Department here make it necessary for me to return to South Bend not later than April 12th and I wanted to make sure that there would be appropriate flight connections. It now appears that I could get into Milan at 7:25 p.m., on Thursday, April 9th, and would have to leave at 11:45 a.m., on Saturday, April 11th. The extra cost in making the return trip via Milan would be U.S. $54.50.

If this very short visit is satisfactory to you, I would be more than happy to visit your Institute and give a lecture on "Conformational Analysis in Mobile Systems." Time would obviously not permit me to go to Naples, nor probably even to visit Pisa, even though Dr. G. Berti at Pisa is a former student of mine and I would be very delighted to have a chance to see him if it were at all possible.

As soon as I hear from you again, I will make appropriate travel arrangements.

Sincerely yours,

Ernest L. Eliel

ELE:evw

Ernest L. Eliel
Head, Department of Chemistry

P.S. Can you accommodate 8.3 x 10.2 cm slides or will they have to be the 35-mm. variety?

E.L.E.

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

April 10, 1964

267

Professor Giulio Natta, Director
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Once again I should like to express my gratitude to you, and to your colleagues at the Institute, for the honor accorded me, and for their kindnesses during my brief trip to Milano last week. I am especially indebted to Professor Danusso for the time he so generously gave on my behalf.

The discussions on the morning of the second of April were valuable to me, and I hope contacts established through such discussions can be continued in the future.

I am most grateful to you and Mrs. Natta for inviting me to lunch on Thursday. You have been so generous in affording Mrs. Flory and me the privilege of enjoying the hospitality of your home on numerous occasions, which I can assure you will always be remembered with pleasure. I only wish we could have the opportunity to reciprocate your favors. It was, I fear, an imposition to be on your hands last week so soon after the misfortune of Joseph's regrettable accident. We do hope his improvement has progressed rapidly and that he will soon be fully recovered.

With kindest regards to Mrs. Natta, to you , and to Joseph and Franca, I am

Sincerely,

Paul Flory

P. J. Flory

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

March 25, 1964

Professor Giulio Natta, Director
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your cablegram giving further details of the arrangements for the celebration to be held next week in Milano.

I now plan to depart from New York on the evening of the 31st via Alitalia. I should arrive in Milano the next morning, that is, on Wednesday the first of April.

Looking forward to seeing you, I am

Sincerely,

Paul Flory

P. J. Flory

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

March 20, 1964

4
222

Professor Giulio Natta, Director
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Earlier this week I received a cablegram from Rettore Bozza informing me officially of the conferring of the honorary degree which you kindly advised me of last week. The letter said to follow the cablegram has not yet arrived. In view of the limited time available, I cannot further delay travel and other arrangements.

I propose to depart from New York on the evening of the 31st, arriving in Milano on the morning of the first of April. Probably I shall prefer to rest during the afternoon if nothing is scheduled at that time. If necessary, I could probably arrange to leave a day earlier, that is, on the afternoon of the 30th. It would be appreciated if you would advise me by cablegram regarding the dates on which I should be present in Milano.

I would welcome the opportunity to visit your institute if this would be possible. On my trip last fall I had unfortunately little time in Milano.

I assume academic dress can be provided so that there will be no need for me to include this in my baggage. I shall, however, bring a hood. If it would be advisable for me to bring full academic attire, I hope you will so inform me by cable.

Again, let me say how much I appreciate the honor which has been bestowed on me at your initiative.

Looking forward to seeing you and Mrs. Natta, I am

Sincerely,

P. J. Flory

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

March 13, 1964

203

Professor Giulio Natta, Director
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Your kind letter of the 6th of March arrived during an absence from which I returned only last evening. For this reason my reply has been somewhat delayed.

I am greatly indebted to you for proposing my name to the Engineering Faculty of the Politecnico of Milano for the honorary doctorate in Chemical Engineering. Please be assured that your action in this regard is deeply appreciated. If this proposal receives authorization by the Italian State Department, I shall of course endeavor to attend the Centennial Anniversary Ceremonies to be held on the third of April at the La Scala theater.

I look forward eagerly to the pleasure of seeing you and Mrs. Natta again in the near future. Mrs. Flory joins in sending greetings and highest regards to you both.

Sincerely,

P. J. Flory

molto lieto di sentirla
Lieto di vederla presto

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

July 15, 1964

Prof. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonard da Vinci, 32
Milano, Italy

Ref. A518/eg

Dear Prof. Natta:

Thank you for your kind letter of July 8, 1964. Unfortunately, I am not able to postpone my trip until September.

Perhaps sometime in the future, I will have the opportunity to visit you at the Institute in Milan at a more propitious moment.

Sincerely yours,

H. N. Friedlander

HNF/64-121/np

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

June 30, 1964

molto piacendo Aspetto chiarimento dalla il personale è in vacanza se farebbe qui più di settembre

518

Professor G. Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32 - Milano

Dear Prof. Natta:

I will be in Europe en route to Israel during August. I expect to be in Italy about August 13 to 15th. If possible, I would greatly appreciate the opportunity to visit with you and at your laboratory to discuss research work on stereoregular polymerization. I am particularly interested in mechanisms of catalysis, the structure of stereoregular polymers, and copolymerization.

Is it possible for me to visit with you during that period? In the event that you will not be available, is there someone else I could arrange to visit at your laboratory? It would be a great pleasure to talk with you again and finally to be able to visit your laboratory.

Dr. Albert Ciferri sends his regards.

Sincerely yours,

H. N. Friedlander
Manager, Polymer Science

HNF/64-110/bp

GAYLORD ASSOCIATES Inc.
Polymer Consultants
RESEARCH AND DEVELOPMENT LABORATORIES
20 MT. PLEASANT AVENUE
NEWARK 4, N. J.
TELEPHONE HUMBOLDT 4-1395

April 7, 1964

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Prof. Natta:

I am extremely sorry that your prior commitments do not permit us to get together during my forthcoming trip to Europe.

I will be in contact with you again next year and hope that we can arrive at a mutually satisfactory date at that time.

Very truly yours,

GAYLORD ASSOCIATES, INC.

Norman G. Gaylord mz

Norman G. Gaylord

NGG:mz

GAYLORD ASSOCIATES Inc.

Polymer Consultants

RESEARCH AND DEVELOPMENT LABORATORIES

20 MT. PLEASANT AVENUE
NEWARK 4, N. J.

TELEPHONE HUMBOLDT 4-1395

February 28,1964

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

For a number of years I have had the pleasure of meeting with you and your staff and of delivering a lecture at the Politecnico on the occasions of my periodic visits to Europe.

I am now arranging the itinerary for my forthcoming trip in April and, if convenient to you and your staff, would welcome the opportunity to again lecture at the Politecnico. If there is an interest in such a presentation at this time, I would like to suggest Wednesday, April 8th, 1964, for my visit and lecture.

Please let me know at your earliest convenience whether you would like to have me visit with you. I have always found my visits to be stimulating and look forward to the opportunity to renew associations.

Very truly yours,

GAYLORD ASSOCIATES, INC.

Norman G. Gaylord mz

Norman G. Gaylord

NGG:mz

March 6, 1964

Prof.Ernest L.Eliel, Head
Dept. of Chemistry,
University of Notre Dame,
Notre Dame, Indiana (USA)

our ref.158/lv

Dear Professor Eliel:

Thank you very much for your letter of Feb.28, 1964. I am very glad that you can accept our invitation to come to Milan and deliver a lecture at my Institute on the conformational analysis in mobile systems.

I only regret that, together with Prof.Danusso, I shall have to be in Rome from April 8 to 12 for duties of the Ministry of Education - therefore, I shall have to miss this opportunity to meet you personally.

However, some co-workers of mine, e.g. Prof.Farina, Prof.Pasquon and others, will be delighted to meet you and welcome you here also on my behalf.

Please, let me know, as soon as possible, whether we have to make hotel reservations for you from April 9 to 11. We will be glad to offer you a honorarium covering your living and travel expenses in Italy.

Both 8.3 x 10.2 cm and 35-mm. slides can be shown here; therefore you can choose the type that suits you better.

Looking forward to hearing further details on your visit here, I send you my kindest personal regards.

Giulio Natta

Feb.19, 1964

Dr.Ernest L.Eliel
Dept.of Chemistry,
University of Notre Dame,
Notre Dame, Indiana (U.S.A.)

our ref.108/lv

Dear Doctor Eliel:

As reported in the program of the Conference sponsored by the English Chemical Society, you will deliver a lecture on a topic of great interest to me and to my co-workers.

I would mostly appreciate learning whether, on your coming to Europe, you can come to Italy after the Conference in England, to give a lecture at my Institute. If you have a short spare time, most probably, you might be invited also by other Italian Universities (e.g. those of Naples and Pisa).

Obviously the travel expenses from England to Italy and your living expenses in Italy will be defrayed.

Looking forward to hearing from you on this matter, I send you my kindest regards,

Giulio Natta

April 20, 1964

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (U.S.A.)

our ref.267/lv

Dear Professor Flory,

Thank you very much for your kind letter of April 10.
I was extremely glad to meet you again; my co-workers have enjoyed very much the interesting discussions they had, and do hope they will be continued in the future.

My son is well now; my wife and I wish to make you sure that we were very happy to have you as our guest at home, even if we were a little upset for what had happened to Giuseppe.

Hoping you will soon find another opportunity to come to Milan with Mrs.Flory, I send you both kindest personal regards, to which my wife joins.

Sincerely,

Giulio Natta

Columbia University in the City of New York | New York 27, N.Y.

DEPARTMENT OF CHEMISTRY

Havemeyer Hall

December 16, 1963

24

1048

Dr. G. Natta
Instituto Di Chimica
Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Thank you very much for your letter. Enclosed is an outline of my talk before the New York Academy.

May I take this opportunity to congratulate you on receiving the Nobel Prize this year. It was well deserved.

Best regards.

Sincerely yours,

Harry B. Gray

Harry B. Gray
Associate Professor
of Chemistry

encl.

HBG/dc

DAG HAMMARSKJÖLDS INTERNATIONAL RESEARCH CENTER

Memorial Committee

Jacksonville 4, Florida

20 May 1964

Dr. Guilio Natta
Polytechnic Institute of Milan
Milan, Italy

594

Dear Dr. Natta:

The Memorial Committee is appealing to selected citizens of all nations for contributions to help establish a fellowship fund honoring the memory of the late Secretary General of the United Nations. We ask your thoughtful consideration of the attached material in the hope that you will find our project worthy of support.

The fund, when established, will be used to assist students and scientists of all nations who qualify for fellowships to the International Research Center and Research Institute at Uppsala University, Uppsala Sweden. The university, supported by the Swedish government, is making all its facilities and resources available at no cost to those selected to receive grants from the fellowship fund. We believe you'll agree this is a wonderful opportunity for young men and women of all countries.

The Center and Institute are dedicated to Hammarskjöld's deep conviction that international cooperation and exchange of knowledge can banish disease, hunger, ignorance and intolerance. Our hope is that through the fellowship fund we can provide for living and travel costs of students who, though otherwise qualified, could not maintain themselves financially unless outside assistance is provided. Then too, we sincerely believe that those who participate and share in the studies and research at Uppsala will contribute much to the enrichment and advancement of all the arts and sciences and will promote a deeper, broader international understanding.

The attached material concisely details the functions of the Institute, the Center, the Memorial Committee and Fellowship, Inc. Worthy of particular note is the fact that the Center is now completed; built with monies contributed solely by the people of Sweden.

May we look forward to your support and count on an early affirmative? We would be honored indeed to welcome you to membership and would appreciate your advising compatriots and colleagues of our fellowship project.

Very sincerely yours,

Saga Skafte-Lindblom, Chairman.
Vice Consul, Royal Vice Consulate of Sweden.

Prof. Per-Olov Löwdin, Ph.D.,
Secretary.
University of Florida, Gainesville, Florida; University of Uppsala.

2365 Riverside Avenue
Tel: Evergreen 9-8912

UNIVERSITY OF HOUSTON
CULLEN COLLEGE OF ENGINEERING
HOUSTON 4, TEXAS

DEPARTMENT OF CHEMICAL ENGINEERING

August 13, 1964

628

Professor Giulio Natta, Director
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta: Ref: 63-369

Thank you very much for your hospitality while I visited you in June. I really did enjoy my visit. I apologize for my delay in thanking you but I just arrived back in Houston a few weeks ago.

I was really impressed with the very extensive research programs you have in your laboratories. I hope some day I will be able to stay there a little longer and to work under your guidance.

Meanwhile, I hope you are well and your health will permit you to visit us in Houston and stay with us for an extended period. Thank you again.

Sincerely yours,

C. J. Huang

C. J. Huang
Chairman

CJH:fw

UNIVERSITY OF HOUSTON
CULLEN COLLEGE OF ENGINEERING
HOUSTON 4, TEXAS

DEPARTMENT OF CHEMICAL ENGINEERING

June 5, 1964

441

Professor Giulio Natta, Director
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

Ref: 63-331

I have been hoping that some day I will be visiting Europe and may pay my respects to you for your pioneering work in hydrocarbon polymerization.

Fortunately, I am now scheduled to read my paper before ACHEMA Congress at Frankfurt on June 19. Therefore, I will appreciate it very much and will be greatly honored if I may have an opportunity to visit you and your Institute on my way to Frankfurt, June 16-18. I will be arriving in Paris between June 12-15, and if I may, I wish to make an appointment with you as soon as I reach Paris.

I apologize for not asking for the appointment earlier, but because of the heavy trans-Atlantic traffic at this time, I have not been able to obtain the definite travel schedule.

Hoping that you will allow me to visit you,

Sincerely yours,

C. J. Huang

C. J. Huang
Professor and Chairman

CJH:fw

May 27, 1964

Dear Giulio,

I will appreciate it very much if you would kindly autograph the enclosed postcard, and send it back to me.

I enjoyed the great job you did in winning the 1963 Nobel Prize for Chemistry very much, and is looking forward to hearing from you soon.

Sincerely yours,

Danny Franklin
206 East Alice
Sunnyslope, Arizona
(U.S.A.) 85020

30/6/64

(10)

Professor Huang
Cullen College Engineering
University
Houston 4 (Texas)

dettato
sec 18.15

glad meet you Milan one
from June to
morning ~~[illegible]~~ 16 ~~[illegible]~~

18.

Natta

~~thus causing inconveniences~~
~~This is a disadvantage~~ when
~~[illegible]~~ use provokes a superficial
wear.

Better results were obtained
by mixing polypropylene with
other substances (preferably
polymeric ones) that can be mixed
at the spinning temperature,
and show, at the temperature
of use, a sufficient affinity
with polypropylene to avoid
a migration (of these substances) from the inner
part to the surface of the
fibre. In many cases, small
amounts of linear polymers
(5-10% by weight) are enough
to give the fibre adequate
dyeing properties, ~~and~~ to allow its use
~~thus it can~~
~~be~~ mixed with wool and to permit
an homogeneous dyeing of the fibres.
~~the fibres obtained can be~~

March 6, 1964

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University,
Stanford, California (U.S.A.)

our ref.172/lv

Dear Professor Flory:

The Polytechnic Institute of Milan, on the occasion of the Centennial Anniversary Ceremonies, has come to the decision to bestow the honorary degree on some foreign scientists. The Engineering Faculty of this Polytechnic had long since proposed your name as recipient of the honorary doctorate in Chemical Engineering.

The Italian Department of Education has already given a favourable answer to that proposal, but we are still waiting for the authorization of the Italian State Department.

I hope that such an authorization will arrive in due time. I wish to inform you about it in a confidential way, and think that, in a short time, you will receive an official invitation to participate in the award ceremony, which will take place in Milan, at the "La Scala" Theater, on April 3, 1964, in the presence of the President of the Italian Republic.

Obviously all travel and living expenses incurred by you will be completely defrayed.

Looking forward to meeting you soon, I send you, with my sincerest congratulations, my kindest regards.

Giulio Natta

July 8, 1964

Dr. H.N. Friedlander
Chemstrand Research Center, Inc.
Research Triangle Park
Box 731, Durham, North Carolina

our ref. 518/eg

Dear Doctor Friedlander:

With regard to your kind letter of June 30, I mostly regret informing you that my Institute will be closed in August and the whole staff will be absent for Summer holidays.

In particular during the week August 9-16 there is almost no one in Milan.

Please let me know whether you can postpose your visit to the beginning of September.

With kindest personal regards.

G.Natta

March 4, 1964

Prof.Norman G.Gaylord,
Gaylord Associates Inc.
Research & Development Labs.
20 MT.Pleasant Avenue,
Newark 4, N.J. (U.S.A.)

our ref.148/lv

Dear Professor Gaylord:

Thank you for your letter of Feb.28, 1964.
I mostly ~~regret~~ informing you that it is very difficult for me to take new engagements for the month of April: in fact, on April 8 onwards I shall be in Rome with some co-workers of mine for duties of the Ministry of Education. Then we will be engaged with the "Days of Chemistry" to be held during the Milan industrial exhibition, from April 12 to 27.
I wonder whether you can postpone your visit with us sometime later.

Looking forward to hearing from you, I send you my kindest regards.

Giulio Natta

January 10, 1964

Prof. Harry B. Gray
Columbia University in the
City of New York, Havemeyer Hall
New York 27, N.Y.

our ref. 1048/eg

Dear Professor Gray:

Thank you very much for kindly sending me the outline of your interesting talk before the New York Academy, and for the kind words you wrote about my being chosen for the Nobel Prize.

Thanking you very much again I send you my best wishes and kind regards.

G. Natta

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N.Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

September 24, 1964

Professor G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am pleased to be able to send you today the first copy of the Symposium on "VIBRATIONAL SPECTRA OF POLYMERS".

In view of the fact that the last manuscript arrived only on March 30th and the last discussion manuscript on June 5th, the publication time was quite good.

Best personal regards,

Yours sincerely,

E. H. Immergut
Editor

EHI:dh

enclosure

W. R. GRACE & CO.

Research Division

WASHINGTON RESEARCH CENTER · CLARKSVILLE, MARYLAND

AIR MAIL

January 31, 1964

Professor G. Natta
Instituto di Chimica Industriale de Politechnico Milan
Milan, Italy

Dear Professor Natta:

I am writing a review on stereospecific polymerization for "Science". I would like to know if I could have your permission to use Figure 1 from your article in Chim e Ind 42 1208 (1960) and Figure 1 from your paper in Tetrahedron 8 88 (1960). ~~388~~

Sincerely,

A. Donald Ketley

A. Donald Ketley
Research Associate

ADK:fh

M d'accord

Dec.2, 1963

1037

Dr.Harry Gray,
Columbia University,
Dept.of Chemistry,
New York, N.Y. (USA)

Dear Doctor Gray,

As indicated in the Dec.1963 program of the New York Academy of Sciences, at the Symposium on the Nature of Chemical Binding, you will speak on the "Classification of Unsaturation in Inorganic Molecules".

Since I cannot participate in the meeting personally, would you please send me a reprint of your lecture?

Thanking you very much again, I am

Sincerely yours,

G.Natta

Ann

October 5, 1964

Prof. E.H. Immergut
John Wiley & Sons Inc. Publishers
New York & London
605 Third Avenue
New York 16, N. Y. (USA)

Dear Dr. Immergut:

Thank you very much for kindly sending me the first copy of the Symposium on "Vibrational Spectra of Polymers".

I have very much appreciated the speed of its publication.

Kindest personal regards.

G. Natta

Dec.17, 1964

Dr.W.B.Kroll,
Central Basic Research Lab.,
Esso Research & Engineering Co.,
Linden, N.J. (U.S.A.)

Dear Dr.Kroll:

The Monthly Program (Dec.1964) of the New York Academy of Sciences reported that you had presented a communication on the "Chemistry of Cyclopentadienylaluminum Compounds".

I would mostly appreciate your sending me a reprint of your paper, if available.

Thanking you in advance, I am

Sincerely yours,

Giulio Natta

Feb.18, 1964

Dr.A.Donald Ketley,
Research Associate,
W.R.Grace & Co.
Research Division,
Washington Research Center,
Clarksville, Maryland (U.S.A.)

Dear Doctor Ketley:

With regard to your letter of Jan.31, 1964, I wish to inform you that I gladly grant you permission to use the two figures you need for your review for "Science", e.g. Fig.1 from Chimica e Industria 42, 1208 (1960) and Fig.1 from Tetrahedron 8, 88 (1960).

However, I suppose that you should also ask for that permission to the editorial offices of the corresponding journals.

Sincerely yours,

G.Natta

P.S. I have already asked for that permission to La Chimica e l'Industria and they gladly give you permission to use their figure.

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK, LONDON & SYDNEY
605 THIRD AVENUE, NEW YORK, N.Y. 10016 212 TN 7-9800 CABLE ADDRESS: JONWILE

March 12, 1964

Professor G. Natta
Chimica Industriale
Politecnico
P.za Leonardo da Vinci 32
Milano, Italy

re: Attached reprint orders - Prod. Nos. 217, 230

Dear Professor Natta:

We have on hand your two reprint orders for your articles which will appear in the April issue of the JOURNAL OF POLYMER SCIENCE, PART B, Polymer Letters.

We wished to clarify one point regarding both orders:

Prod. No. 217 - We are to provide covers for only 200 reprints
All reprints are to be shipped to Istituto Chimica Industriale Politecnico - billing to be split

Prod. No. 230 - Split shipment of reprints - split billing
Are any of the reprints to be covered?

We would appreciate hearing from you.

Sincerely yours,

Esther Gilbert

Esther Gilbert
Periodicals Department
Reprint Division

eg
attached

JOHN WILEY & SONS, INC., PUBLISHERS, NEW YORK & LONDON
605 THIRD AVENUE, NEW YORK 16, N. Y. 212 TN 7-9800 CABLE ADDRESS: JONWILE

1002

November 14, 1963

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonard da Vinci
32- Milano, Italy

Dear Professor Natta:

POLYMERIZATION OF ALDEHYDES AND OXIDES by Furukawa and Saegusa has just been published and a complimentary copy is being sent to you under separate cover with Doctors Furukawa and Saegusa's personal compliments.

We are aware of your accomplishments in this field and feel that this book will prove interesting to you.

Sincerely yours,

M. Rogen

(Miss) M. Rogen
Marketing Division

mr
cc: Dr. E. H. Immergut

ORGANOMETALLIC SYNTHESES

Editors:
JOHN J. EISCH
The Catholic University of America
Washington, D. C. 20017

R. B. KING
Mellon Institute
Pittsburgh, Pa. 15213

Publisher:
ACADEMIC PRESS Inc.
111 Fifth Avenue
New York, N.Y. 10003

Il Prof. deve rispondere! Vedi appunti e lettere allegate. Sentire anche Enoli

May 4, 1964

Dr. G. Natta
Institute of Industrial Chemistry
Polytechnic of Milan
Milan, Italy

Dear Dr. Natta:

As a researcher active in the field of organometallic chemistry, you undoubtedly have been confronted with the problem of finding suitable preparative procedures for organometallic compounds not listed in "Organic Syntheses" or in "Inorganic Syntheses". In attempting to reproduce literature results you may have modified the procedure or apparatus in an advantageous fashion. Furthermore, in original investigations you may have prepared for the first time novel organometallic types of interest both to synthetic and physico-chemical research.

To meet this situation in organometallic research we have decided to launch a new series entitled, "Organometallic Syntheses". This series will commence with a treatment of experimental techniques and reliable procedures for important transition metal compounds (Volume I by R. B. King). The following volume will offer a corresponding treatment of non-transition metal compounds (Volume II by J. J. Eisch). Concurrent with the preparation of these volumes, contributed procedures will be solicited from active researchers in the field and then screened for optimal reliability. At the discretion of the Editors and an Editorial Board of prominent organometallic chemists the verified preparative procedures will be published periodically in subsequent volumes.

Because of your active research with organometallic compounds, we wish to inform you of this venture and to solicit your cooperation. In the first place, we would welcome contributions of new or improved experimental procedures for either transition metal or non-transition metal compounds. Secondly, we would like to learn whether you would be willing to referee contributions from other research laboratories. Such comments by experienced workers would be most valuable. Finally,

in certain cases where experimental checking of certain procedures is deemed necessary, would your laboratory be willing to engage occasionally in such checking? The Editors and the Board Members all hope to engage in such checking, so that no researcher will be overly burdened in this regard.

Enclosed is a Statement of Editorial Policy. As detailed instructions to prospective contributors are made available for distribution, we shall send copies of these brochures to you. You will receive free copies of any volumes to which you make contributions.

We would appreciate a preliminary response from you concerning your willingness to participate in this undertaking.

Sincerely yours,

R. Bruce King

R. B. King

ITALCABLE

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

LMS236 ZCZC OR899 WU1622 HOUSTON TEX 32 10 1204P

SPOSTA TELEFONATE AL N. 8838

LT PROFESSOR GIULIO MATTA 327
DIRECTOR INSTITUTE OF INDUSTRIAL
CHEMISTRY POLYTECHNIC INSTITUTE
OF MILAN MILAN
PZZA LEONARDO DA VINCI 32

TELEGRAMMA *via Italcable via Italo Radio*

[redacted] 17 3

ITALCABLE 11-5-1964

Spazio riservato agli estremi di ricevimento

MANY THANKS WILL BE IN MORNING OF THE 17TH
C J HUANG CHEMICAL ENGINEERING DEPT UNIVERSITY OF HOUSTON

~~Rep Tour c Tacco 20~~ 9543

3M COMPANY

GENERAL OFFICES • 2501 HUDSON ROAD • ST. PAUL, MINNESOTA 55119 • TEL: 733-1110

Reflective Products Division

July 22, 1964

Professor Giulio Natta
Polytechnic Institute of
Industrial Chemistry
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Enclosed is the reprint of "Concepts of Unsaturation" of which I was earlier able to send you only a typewritten draft.

With kind personal regards,

Cordially,

Reynold E. Holmen
Manager, General Research

REH:eb

enc.

October 5, 1964

John Wiley & Sons Ltd.
Glen House, Stag Place
London S.W.1

Thank you very much for kindly sending me a copy of "Ham : High Polymers, Vol. 18 ".

Sincerely yours,

Giulio Natta

March 16, 1964

Miss Esther Gilbert,
Periodicals Department,
Reprint Division,
John Wiley & Sons, Inc.
605 Third Avenue, New York, N.Y.
10016 (U.S.A.)

re: Reprint orders - Prod.Nos.217,230

Dear Miss Gilbert:

Thank you for your letter of March 12, 1964.
We wish to explain our statements in the reprint orders stated above:

Prof.No. 217 - provide covers for only 200 reprints.
split shipment of reprints: 200 reprints with covers (+ 50 free of charge) to: Istituto Chimica Industriale, Politecnico, P.za Leonardo da Vinci 32 - Milano -

100 reprints without cover to: Biblioteca Centrale - Politecnico - P.za Leonardo da Vinci 32 - Milano -

billing to be split as indicated.

Prod.No. 230 - split shipment of reprints (350 to Istituto di Chim. Ind., etc. and 100 to Biblioteca Centrale, etc.)

split billing of reprints (300 to Istituto di Chim. Ind., etc. and 100 to Biblioteca Centrale, etc.).

Please, provide covers for 300 reprints (that is those to be shipp d and billed to Istituto Chimica Industriale, Politecnico, P.za Leonardo da Vinci 32, Milano).

Sincerely yours,

The Secretariat
of Prof.Natta

July 29, 1964

Dr. R. B. King,
Mellon Institute,
Pittsburgh, PA 15213

our ref. 318/lv

Dear Doctor King,

Thank you for your kind letter of May 4, 1964. I wish to congratulate on you for the work you want to do in the field of organometallic compounds. It will certainly be very useful for all those working in that field.

However, I mostly regret informing you that I cannot participate in that enterprise personally, due to my previous engagements and to the complexity of the contribution you require.

I have informed some co-workers of mine of your request: some of them will be glad to cooperate. I herewith enclose the English translation of the answer I got from Prof. Pino, presently full Professor in Industrial Organic Chemistry, Pisa University. Others, like Dr. Giannini, might contribute with the description of the preparation of some compounds. Dr. Giannini quotes the following ones: $(C_5H_5)_2TiCl_2Al(C_2H_5)_2$; $(C_5H_5)_2TiCl_2Al(Cl)(C_2H_5)$; $(C_5H_5)_2TiCl_2AlCl_2$; $(C_5H_5)_2TiAl(C_2H_5)_2$ 2; $(C_5H_5)_2TiCl$ 2; $C_5H_5Ti(CH_3)_3$; $Al(C_2H_5)_2(C_5H_5)$.

Please, let me know whether you agree with the cooperation of said persons.

Kindest regards.

Giulio Natta

Encl/

Feb.18, 1964

Miss Dorothy Lee,
Dept. of Chemistry,
Oregon State University,
Corvallis, Oregon,U.S.A.
97331

our ref.99/lv

Dear Miss Lee:

Thank you for your letter of Feb.11, 1964.
I am sorry to inform you that, unfortunately, the orinated sample of polyacetaldehyde is no more available.
Thus I am unable to give you the help I would have liked to.

With my kindest regards,

Giulio Natta

July 16, 1963

Miss Dorothy Lee
42 South Eighth Street
San Jose 12, California

our ref. 707/eg

Dear Miss Lee,

I have examined your question and I must admit that the sentence on page 512 of Journal of Polymer Science (G.Natta, P. Corradini, I.W. Bassi, 51, 505-25 (1961))"the Θ angle between the projections normal to the chain axis of two atoms following one another on the same helix ..."is not completely clear. I herewith enclose a photostat of a reprint of the paper by P. Corradini and I. Pasquon (Atti Acc. Naz. Lincei, 19, 453 (1955)); on page 455, fig. 3 (below), you may see that the angle is the angle, in the projection normal to the chain axis, between two oxygen, or two carbon atoms, as you suggest in your letter. The apparent discrepancy is explained by the consideration that two atoms on the same helix (not on the same chain) must be equivalent, and in particular must belong to the same chemical specie. In other words, in the case of isotactic polyacetaldehyde there are three helixes, with the same period, and different radii: one connecting the methyl groups, the second the oxygen atoms, and the third the carbon atoms of the chain.

Sincerely yours

G. Natta.

Encl/

Aell

October 5, 1964

Dr. Reynold E. Holmen
Minnesota Mining & Manufacturing
General Offices
2501 Hudson Road
St. Paul, Minnesota 55119 (USA)

Dear Doctor Holmen,

thank you very much for kindly sending me the reprint of "Concepts of Unsaturation"

Kindest personal regards.

G. Natta

Miss Dorothy Lee

Department of Chemistry

Oregon State University

Corvallis, Oregon

97331

CORVALLIS, ORE. FEB 11 PM 1964

11¢ US POSTAGE AIR MAIL

Dr. G. Natta

Istituto di Chimica

Industrial del Politecnico

Milan, Italy

AÉROGRAMME • PAR AVION

FIRST FOLD

SECOND FOLD

DO NOT

Bacon (Allegra)

February 11, 1964

Dr. G. Natta
Istituto di Chimica
Industrial del Politecnico
Milan, Italy

Dear Dr. Natta:

I have written you previously about my normal vibrations analyses of polyacetaldehyde. Dr. John C. Decius, my advisor, has suggested that I attempt to obtain a polarized spectra. He would be able to take it himself if the sample were available. I wonder if the sample you and your co-workers used for the x-ray studies is still existent and if you would part with it long enough for us to obtain a spectra. If so, you could send it to:

Dr. John C. Decius
Department of Physics
King's College, Strand
London WC2
ENGLAND

or to me:

Miss Dorothy Lee
Department of Chemistry
Oregon State University
Corvallis, Oregon
97331

I understand that Dr. Robert G. Snyder from Shell Development is presently with your infra spectroscopy group. I am writing to him about the possibility of his taking it there and then you would not have to part with the sample at all.

I shall look forward to hearing from you and appreciate any help you can give me in this matter.

Sincerely,

Dorothy Lee

Dorothy Lee

Dorothy Lee

42 South 8th St. (Apt. 9)

San Jose 12, California

U. S. A.

SAN JOSE JUN 29 6 30PM 3 1963 CALIF.

US POSTAGE 11¢ AIR MAIL

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Milan, Italy

FIRST FOLD

SECOND FOLD

AÉROGRAMME • PAR AVION

MILANO POSTE 9-10 3 VII 1963

DO NOT USE TAPE OR STICKERS TO SEAL

NO ENCLOSURES PERMITTED

42 South Eighth Street
San Jose 12, California
June 28, 1963

Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Milan, Italy

Dear Dr. Natta:

I am attempting to determine the normal vibrations of polyacetaldehyde to satisfy the thesis requirements for a doctoral degree at Oregon State Univ. It is necessary for me to determine the Cartesian coordinates of each atom from the geometry of the molecule as determined by your x-ray analysis in the Journal of Polymer Science 51, 505-25 (1961). I am puzzled as to the source of eqn. 1 on page 512. It is not obvious to me why this general relationship should apply. If the angle is defined as the projections normal to the chain axis of two atoms following one another on the same helix, why would it be equal to 90°? Two atoms following one another would be a carbon and an oxygen or vice versa. The angle between the projections normal to the chain axis of two carbon or two oxygens should be 90° but a carbon does not follow a carbon on the skeletal chain.

I would appreciate any help you can give me concerning this. Prehaps a reprint of reference 18 -- Corradini, P., and I. Pasquon, Atti accd. nazl. Lincei, Rend., Classe sci. fis. mat. e nat., 19 (8), 453 (1955) would enlighten me further.

During the summer I am at the above address of c/o IBM General Products Division; Advanced Technology; Monterey and Cottle Roads; San Jose 14, California; 95114; U. S. A. or at any time c/o Chemistry Department; Oregon State University; Corvallis, Oregon.

Sincerely,

Dorothy Lee

Miss Dorothy Lee

ITALCABLE

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

PER LA RISPOSTA TELEFONATE AL N. 8838

LMSQ93 MP2226 WUI NEW YORK 5Q 11 2Q3P

LT PROFESSOR G NATTIA
POLITECNICO DI MILAN PIAZZA
EONARDO DA VINCI 32 MILAN

1011

TELEGRAMMA via Italcable via Italo Radio

1964 GIU 12 13 19

ITALCABLE 12-6-1964 MILANO

Spazio riservato agli estremi del ricevimento

15 GIU. 1964

HEARTIEST CONGRATULATIONS ON RECEIVING CITATION FOR THE HONORARY DEGREE OF DOCTOR OF SCIENCE WE SINCERELY REGRET THAT YOU WERE UNABLE TO ACCEPT PERSONNALLY FELICITATIONS AND BEST WISHES ON THIS WELL DESERVED AWARD POLYMER RESEARCH INSTITUTE HERMAN MARK

3M COMPANY

GENERAL OFFICES • 2501 HUDSON ROAD • ST. PAUL 19, MINNESOTA • TEL: 733-1110

Reflective Products Division

December 12, 1963

Professor Giulio Natta
Polytechnic Institute of Industrial Chemistry
Leonardo da Vinci Square, 32
Milan, Italy

Dear Professor Natta:

Thank you for your interest in my paper "Concepts of Unsaturation" given at the New York Academy of Sciences Symposium on December 3, 1963. Although reprints are not yet available, I am happy, meanwhile, to provide you with a copy of a typewritten draft. The quanticule theory of Fajans is usually a very controversial subject wherever it is discussed. A brief introduction, such as mine, can only hope to move the more curious to study the more important references, such as 4a, b and c.

Please accept my personal hearty congratulations for the honor you have received as co-recipient of the current Nobel Prize in chemistry. Your pioneering work on stereo-regulated polymerization is outstanding.

Very truly yours,

Reynold E. Holmen

Reynold E. Holmen
Manager, General Research

REH

eb

enc.

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 490
DURHAM, NORTH CAROLINA

CAMILLE DREYFUS LABORATORY

May 5, 1964

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

After my return home I must thank you and your wife very heartily for all your kindness and hospitality during my stay in Milan. It was for me a great pleasure to see your charming wife again and I only hope that in the not too distant future, when you are again in the States, you will be able to include a visit to our place in your itinerary so that we can show you a little of our work and achievements. I was extremely impressed by the excellent results which were shown to me by Professor Danusso.

If by any chance you have some good student who desires to spend some time in an American research laboratory, I would be very happy to offer him a post-doctorate position at the Camille Dreyfus Laboratory. I am quite certain that such an arrangement would not only help us but would also give the young man a good opportunity to get acquainted with some new and interesting aspects of polymer physics and chemistry which we are dealing with in the Camille Dreyfus Laboratory.

With best personal regards.

Sincerely yours,

A. Peterlin

A. Peterlin
Director

AP/jr

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 490
DURHAM, NORTH CAROLINA

CAMILLE DREYFUS LABORATORY

14 APR. 1964
964

April 6, 1964

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Milano, Italy

Dear Professor Natta:

Thank you very much for your kind letter of March 23 and for the hotel reservation. I intend to arrive in Milano in the afternoon of April 15 and will then come to your Institute on Thursday morning. According to my present plans I intend to stay in Milano Thursday and Friday when I must then leave in the late afternoon.

Looking forward to seeing you soon.

Sincerely yours,

A. Peterlin

A. Peterlin
Director

AP/jr

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 490
DURHAM, NORTH CAROLINA

CAMILLE DREYFUS LABORATORY

216

March 19, 1964

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Milano, Italy

Dear Professor Natta:

Thank you very much for your kind letter of March 4. I expect to arrive in Milano by Alitalia from Naples at 6:10 p.m. on Wednesday, April 15, and intend to stay there until Friday morning. I would highly appreciate your making a hotel reservation for me for the nights of April 15 and 16 and sending this information to my address in Durham so that it reaches me before April 10.

Looking forward to news from you. With best regards.

Sincerely yours,

A. Peterlin

A. Peterlin
Director

AP/jr

Palace

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 490
DURHAM, NORTH CAROLINA

CAMILLE DREYFUS LABORATORY

February 25, 1964

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Milan, Italy

Dear Professor Natta:

Most likely, I will be in Europe in April and at this occasion I would very much like to visit your institute. According to my present plans, I expect to be in Milan on April 15 and 16. Please tell me whether this time is agreeable with you.

As soon as I know my traveling plans a little more precisely, I will write you the time of my arrival. At that time I would also highly appreciate your making my hotel reservation.

With best regards.

Sincerely yours,

A. Peterlin

A. Peterlin
Director

AP/jr

HYDROCARBON PROCESSING AND
Petroleum
REFINER
GULF PUBLISHING COMPANY • BOX 2608 • HOUSTON 1, TEXAS JAckson 9-4301

June 4, 1964

Dr. Guilio Natta
Institute of Industrial Chemistry
Milan Polytechnic School
Milan, Italy

Dear Dr. Natta:

Congratulations from the staff of HYDROCARBON PROCESSING & PETROLEUM REFINER for your John Scott Award from the Philadelphia Board of City Trusts.

The announcement of your award will appear in the "Men in HPI" department of June, 1964, HP/PR; we thought you might like to know about this announcement in advance.

Sincerely,

George Gibbs

George B. Gibbs
Editor

GBG/dw

HYDROCARBON PROCESSING AND
Petroleum
REFINER
GULF PUBLISHING COMPANY • BOX 2608 • HOUSTON, TEXAS 77001 JAckson 9-4301

Ponder

August 18, 1964
148th National ACS Meeting
Chicago, Illinois
August 30, Sept. 4, 1964
"Polymerization of 1,3-Pentadiene to Cis - 1, 4 Stereoisomers"

Dr. Giulio Natta
Institute Chemical Industrial Politechnic
Plazza Leonardo Davinci 32
Milano, Italy

Dear Dr. Natta:

We'd appreciate your sending us a copy of the subject paper. If publication in HYDROCARBON PROCESSING & PETROLEUM REFINER appears desirable, and release is in order, then we will contact you before processing the manuscript.

Many thanks for sending us this advance copy of your paper for our review.

Very truly yours,

Thomas C. Ponder
Programs Editor

TCP/sls

Pubblicheremo su altra rivista -

January 15, 1964

Dear Colleague:

We trust that by now you have received Sir Harry Melville's report of the 1963 I.U.P.A.C. Meeting.

You will kindly note that item III of the Minutes refers to Standard Polystyrene samples of defined molecular weight. You will recall our report indicated that Sample S 114 appeared to degrade with time. (S 114 was of very high molecular weight). Please be so kind and send us detailed information concerning this particular sample, e.g. method of storing the sample prior to experimental determinations, difficulties encountered in the determination, exact dates on which the measurements were performed. Any other information or suggestions that you have will be most helpful.

We will attempt to establish, if possible, a correlation of all the data. We shall report to you periodically prior to our next I.U.P.A.C. meeting.

With warmest personal regards and Season's Greetings, we are,

Very sincerely yours,

H. F. Mark

H. F. Mark

Sheldon M. Atlas

Sheldon M. Atlas

OFFICE OF THE DEAN OF THE FACULTY

September 24, 1964

Professor G. Natta
Direttore dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Please accept my sincerest congratulations on the excellent organization of the Congress in Milano; the program was most interesting and the Exposition very impressive.

Mimi and I also want to thank you and Rosita very cordially for the wonderful evening and for your very kind hospitality in Milano.

With warmest personal regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:gf

CHARLES G. OVERBERGER
DEAN OF SCIENCE
DIRECTOR, POLYMER RESEARCH INSTITUTE

September 18, 1964

Dr. Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonard Da Vinci, 32
Milano, Italia

696

Reference: 674/lv

Dear Professor Natta:

Thank you very much for your letter of September 11, concerning Dr. Piermaria Sartori who is interested in obtaining a NATO Fellowship and working with me here at the Polytechnic Institute of Brooklyn. I am most pleased to inform you that I will be very happy to accept Dr. Sartori in our laboratories.

At the moment we are very much involved in the preparation and polymerization of polyamides and polyesters which contain asymmetric groups in the main chain of the polymer. We are investigating the solution properties and the solid state properties of these polymers; for example, a polymer prepared from optically-active trans-1,2-cyclohexanecarboxyclic acid and 2,5-dimethyl piperidine has given us an asymmetric polymer with a very rigid backbone whose optical properties in solution indicate some kind of rigid conformation similar to a helix.

If Dr. Sartori needs any more detailed information for his application, I would be happy to provide it. I am grateful for your help.

With kindest regards,

Sincerely,

C. G. Overberger

C. G. Overberger

Dean of Science

Director--Polymer Research Institute

cgo-h

airmail

January 10, 1964

Dr. Reynold E. Holman
Minnesota Mining and
Manufacturing Company
2501 Hudson Road
St. Paul 19, Minnesota

Dear Doctor Holmen:

Thank you very much for kindly sending me the typewritten draft of your interesting paper "Concepts of Unsaturation", and for the kind words you wrote about my being chosen for the Nobel Prize.

Thanking you very much again, I send you my kindest personal regards and best wishes for 1964.

G. Natta

Dec.2, 1963

1037

Dr.Reynold E.Holmen,
Minnesota Mining and Manufacturi
Co.,
St.Paul, Minnesota (USA)

Dear Doctor Holmen,

As indicated in the Dec.1963 program of the New York Academy of Sciences, at the Symposium on the Nature of Chemical Binding, you will speak on "The Concepts of Unsaturation".

Since I cannot participate in the meeting personally, would you please send me a reprint of your lecture?

Thanking you very much again, I am

Sincerely yours,

G.Natta

Dec.17, 1964

Dr.Gene Nowlin, Director
Research and Development
Cary Chamicals Inc.,
P.O.Box 129
Flemington, New Jersey (U.S.A.)

Dear Doctor Nowlin:

I was very glad to learn some news about you from my co-worker Prof.Valvassori. Thank you for your greetings which I kindly reciprocate.

If the opportunity arises for you to come to Italy, I will be very glad to meet you in Milan.

My wife joins me in sending you kindest personal regards.

Giulio Natta

June 9, 1964

Prof.A.Peterlin, Director
Camille Dreyfus Laboratory,
Research Triangle Institute,
P.O.Box 490,
Durham, North Carolina (U.S.A.)

our ref.329/vl

Dear Professor Peterlin:

Thank you very much for your kind letter of May 5. Also my wife is grateful to you for the kind words addressed to her.

I wish to thank you very much for offering a post-doctorate position at your Institute to a student of mine. There is a young man here eager to come. His name is Andrea Pavan, and he is one of our best students of the 5th year of chemical engineering.

I would mostly appreciate your letting me know which are the conditions for the fellowship you propose, the deadline for sending Mr.Pavan application, and which are the tentative research topics he will have to deal with. These information will be very useful to Mr.Pavan to plan the research he has still to accomplish for his doctorate.

With kindest personal regards,

Giulio Natta

APRIL 15, 1964

Doctor A. Peterlin
Hotel Palace
Milano

Dear Doctor Peterlin :

I hope you enjoyed your flight to Milan. To-morrow morning at 9.45 a.m. prof. Danusso of my Institute will come to your hotel and drive you here. Thus you will have the possibility of visiting my Institute and discuss topics of mutual interest with my co-workers.

I also hope you will be able to accept my invitation for lunch. We can leave the Institute together at about 12.30 a.m.

Looking forward to meeting you soon, I send you kindest personal regards.

G. Natta

March 23, 1964

Prof.A.Peterlin, Director
Camille Dreyfus Laboratory,
Research Triangle Institute,
Post Office Box 490,
Durham, North Carolina (U.S.A)

our ref.216/lv

Dear Doctor Peterlin,

With regard to your letter of March 19, 1964, I am glad to inform you that we have succeeded in making hotel reservations for you for the nights of April 15 and 16. The hotel you have been registered in is: Hotel Palace, Piazza della Repubblica, Milano.

Hoping to meet you during your visit here, I send you my kindest personal regards.

Giulio Natta

March 4, 1964

Dr.A.Peterlin, Director
Research Triangle Institute,
Camille Dreyfus Laboratory,
Post Office Box 490
Durham, North Carolina (USA)

our ref.145/lv

Dear Doctor Peterlin:

With regard to your kind letter of Feb.25, 1964, I wish to inform you that I hope to be in Milan and meet you on April 15 and 16, though a number of journeys are foreseen for that period.
If I am out of town, however, you can come and meet some co-workers of mine.

I also wish to inform you that it is very difficult to make hotel reservations in Milan from April 12 to 27: in fact a very important industrial exhibition on that period is a great draw. Therefore we would appreciate it very much your letting us know the exact time of your arrival as soon as possible: even so, we are not sure to succeed in finding a suitable room.

With my kind regards,

Giulio Natta

Nov.20, 1964

Mr.Raymond Hamelin,
Scientific Attaché,
Embassy of France,
Washington, D.C. (U.S.A.)

Dear Mr.Hamelin:

I have learned from the October 1964 Program of the New York Academy of Sciences that you have delivered a communication on the "Importance of the Intermolecular Interactions in the Grignard Solutions".

If possible, I would mostly appreciate your sending me a reprint of your paper.

Thanking you very much in advance, I send you my best regards.

Giulio Natta

June 30, 1964

Dr.George B.Gibbs, Editor
Hydrocarbon Processing and
Petroleum Refiner,
Gulf Publishing Company,
Box 2608,
Houston, 1, Texas (U.S.A.)

Dear Doctor Gibbs,

Thank you very much for your congratulations on my receiving the John Scott Award, and for kindly informing me in advance that the announcement of it will appear in the "Men in HPI".

Thanking you very much again I am

Sincerely yours,

G.Natta

Oct.2, 1964

Mr.Thomas [illegible] Ponder, Programs Editor
Hydrocarbon Processing & Petroleum
Refiner,
Gulf Publishing Company,
Box 2608, Houston, Texas 77001

our ref.630/lv

Dear Mr.Ponder:

I have received your request, dated Aug.18, of a copy of "Polymerization of 1,3-Pentadiene to Cis-1,4 Stereoisomers" for publication in HYDROCARBON PROCESSING AND PETROLEUM REFINER.

I regret informing you that it will be impossible for me to send it to you, both because it was already published in an Italian journal and because I have already received previous requests for its publication in English.

Sorry not to be able to fulfil your request, I am

Sincerely yours,

Giulio Natta

Sept.1, 1964

Mr.Thomas C.Ponder
Programs Editor,
Hydrocarbon Processing &
Petroleum Refiner,
Gulf Publishing Company,
Box 2608, Houston, Texas (USA)

Dear Mr.Ponder,

We herewith enclose your letter dated Aug.18, 1964, concerning the paper "Polymerization of Nonpolar Monomers by Lithium Alkyls".

There must be ammistake, since no paper of this kind is being written in this Institute at the moment.

Sincerely yours,

Giulio Natta

July 27, 1964

Prof.Sheldon M.Atlas,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, N.Y. (U.S.A.)

our reg.11/lv

Dear Professor Atlas:

I mostly apologize for answering your circular letter of Jan.15, 1964 with such a delay, which was due to a misunderstanding.

Here I give you the information we can supply concerning the polystyrene fraction S.114.
The intrinsic viscosity $[\eta]$ of this sample was measured in toluene at 30°C, on May 22, 1961. However, an intrinsic viscosity measured in cyclohexane at 35°C, on May 30, 1961, gave a value 200.7 cm^3g^{-1}, and another measurement under the same conditions, performed on June 8, 1961 gave the value of 202.0 cm^3g^{-1}.
The sample before measurements, was kept in the dark in a drawer at a temperature of about 20°C, without any particular caution.

Kindest personal regards,

Giulio Natta

DEPARTMENT OF CHEMISTRY

May 22, 1964

Professor G. Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo da Vinci 32, Milano
Italy

Dear Professor Natta:

Your letter of April 29th reached me in Japan and I immediately wire as you know on May 9th. I am very sorry that I was unable to accept your kind invitation to be an expert witness for your Monticatini patent. Unfortunately on June 4th I have the meeting of our Publications Committee of the Board of Directors of the American Chemical Society of which I am chairman. This is an important assignment which I cannot, unfortunately, change.

It was indeed very flattering to have you ask me. I am pleased to hear from you and hope you are in good health.

Again, my sincere regrets at not being able to accept your kind invitation.

I shall look forward to seeing you and Mrs. Natta again in the near future.

With kindest regards,

Sincerely,

C.G. Overberger
Dean of Sciences

CGO:g

18.6.1964

Prof. Herman MARK, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1 - New York, USA

ns. rif. N. 469/rl

Caro Mark,

La ringrazio vivamente per il suo gentile telegramma e per la sua partecipazione al conferimento della laurea honoris causa che considero un grande onore e che ho molto gradito, anche perchè (come ho precisato nel messaggio che ha letto il Dr. Ottolenghi) considero il Politecnico di Brooklyn uno dei più importanti Centri di Studio nel mondo nel campo della chimica macromolecolare.
La fondazione e lo sviluppo di tale Centro si deve sopratutto a Lei ed alla Sua opera altamente apprezzata in tutto il mondo.

Mi è spiaciuto non aver potuto partecipare personalmente alla Cerimonia ma le mie condizioni di salute mi rendono molto difficile e faticoso fare lunghi viaggi. Spero di potere, nel prossimo anno, affrontare l'operazione chirurgica bilaterale con le nuove tecniche sviluppate recentemente in Svezia, che dovrebbe portare ad una completa guarigione, con minori rischi delle techiche attuali.

Sarò lieto di vederLa a Milano nel prossimo settembre e la ringrazio di avere accettato di fare la conferenza inaugurale.

Molti cordiali saluti a Lei e Mimi anche da parte di Rosita.

Giulio Natta

January 10, 1964

Prof. H. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York (USA)

Dear Professor Mark:

The bearer of this letter is Mr. Alberto Stucchi, a cousin of my wife.

Mr. Studchi carries on his activity in Italy in the field of plastics and monofilaments and already exports some of his products in the U.S.

I would warmly ask you to give him your advice, and possibly a few letters of introduction to the U.S. environments you think Mr. Stucchi should know.

Thanking you very much in advance, I send you and Mimi, also from Rosita, kindest regards and best wishes.

G. Natta

Oct.6, 1964

Prof.C.G.Overberger,
Dean of Science,
Director,Polymer Research Institu
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

our ref.696/lv

Dear Professor Overberger:

Thank you very much for your kind letter of Sept.18, 1964. I am glad that you can accept Dr.Sartori for a period of research at your Institute. In the meantime, Dr.Sartori will send his application for a NATO fellowship.

I also wish to congratulate you on the results attained in the synthesis and properties of optically active polymers obtained by polycondensation.

Kindest personal regards to you and Mrs.Overberger.

Giulio Natta

Sept.11, 1964

Prof.C.G.Overberger,
Polytechnic Institute of Brooklyn,
333 Jay Street, Brooklyn 1
New York (U.S.A.)

our ref.674/lv

Dear Professor Overberger:

A former pupil of mine, Dr.Piermaria SARTORI, who recently got his degree in Industrial Chemistry, wishes to apply for a NATO fellowship.

In the application form, the candidate has to indicate the Institute he has been accepted in and which kind of work he will develop.

I wish to ask you whether you have the possibility to accept Dr.Sartori in your laboratories and which kind of research work he might possibly perform. The graduation thesis he carried out in my Institute concerned the polymerization of propylene to syndiotactic polymer.

Looking forward to hearing from you on this matter, I send kindest personal regards.

Giulio Natta

copia per Prof. Natta

TELEX Nº 647 APRILE 30, 1964

GABBROBREVETTI PER DOTT PIRANI
MILANO (ITALY)

VOSTRO 3299 AT MORTIMER STOP SOTTOSCRITTO TELEFONATO AT OVERBERGER 30 APRILE PERCONTO PROF. NATTA CIRCA CONFERIMENTO LAUREA ''HONORIS CAUSA IN ABSENTIA'' STOP OVERBERGER AVVERTITO CHE PARTIVA PER GIAPPONE PER ASSENZA CIRCA 12 GIORNI SUGGERITO COLLOQUIO CON PRESIDENTE POLITECNICO BROOKLYN STOP PERTANTO MORTIMER DOPO RICEVUTO VOSTRO TELEX 2365 DEL 22 APRILE CONVENUTO ATTENDERE RITORNO OVERBERGER PER SOTTOPORGLI VOSTRA PROPOSTA STOP ALTRI NOMI ESAMINATI SONO STATI PROF FLORY ET PRTAIKCKPDY7 ESPERTO INDUSTRIA EST PIU' DIFFICILE TROVERSI IN QUANTO SONO TUTTI NOSTRI CONCORRENTI STOP PREGO AVVERTIRE PROF NATTA CHE 28 APRILE HO VISITATO DR ERNST WEBER PRESIDENTE POLITECNICO BROOKLYN IL QUALE MI HA DETTO CHE IL 7 MAGGIO BOARD OF TRUSTEES SI RIUNITA' PER ESAMINARE QUESTION CONFERIMENTO IN ABSENTIA CHE PRESENTASI PER LA PRIMA VOLTA ET MI INFORMERA'.

TO BOLSKY

CONFIDO CHE RISULTATO SIA FAVOREVOLE.

OTTOLENGHI

OFFICE OF THE PRESIDENT

May 11, 1964

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32, Milano

Dear Dr. Natta:

I have delayed replying to your letter of March 24, in order to give an opportunity to the Educational Committee of our Corporation to discuss the special circumstances that would prevent you from traveling to Brooklyn next June.

I am happy indeed, to inform you that the Corporation, at its meeting on May 7, unanimously voted to award you the honorary degree, Doctor of Science, in absentia.

A short time ago I had a visit from Dr. Mario L. Ottolenghi, Vice President of Chemore Corporation, who told me of his recent visit with you and expressed willingness to present whatever message you might want to compose, at our Corporation dinner. If you should feel so inclined, the Corporation would be happy to have Dr. Ottolenghi accept the degree for you and attend the Corporation dinner and deliver your message. 9 giugno

The Chairman of the Corporation, Dr. Herbert H. Rogge, will preside at the dinner and the honor guests usually give short informal speeches of about ten minutes upon subjects of their own choosing related to their careers or interests.

Permit me to express my personal admiration for the fortitude that you have displayed.

With kindest personal regards.

Sincerely yours,

Ernest Wilson

President

ITALCABLE

LMS356 JI1213 WT1717 ROMW XWC5414 TU1Q OSAKA 36 9 1103

PER LA RISPOSTA
TELEFONATE AL N. **8838**

LT PROFESSOR G NATTA INSTITUTO
DE CHIMICA INDUSTRIALE DEL
POLITECNICO PIAZZA LEONALDO
E VINCI 32 MILANO

332

TELEGRAMMA *via Italcable via Italo Radio*
1964 MAG 9 7 5

-9-5 1964

Spazio riservato agli estremi di ricevimento

SINCERELY REFRET THAT I CANNOT BE WITNESS FOR MONTECATINI BECAUSE
OF PRIOR COMMITMENT JUNE 4. LETTER FOLLOWS G. G. OVERBERGER

[redacted]

Gettysburg College

GETTYSBURG, PENNSYLVANIA

CHEMISTRY DEPARTMENT

Luisa avvisare che sono stati spediti - a prima di Natta

April 1, 1964

Professor Gulio Natta
Istituto Di Chimica Industriale
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

In connection with some books I am writing for Interscience and John Wiley, I would be glad to receive reprints of your publications in 1960 to 1963 on ethylenic and vinyl-type polymerizations and polymers. Publications of your colleagues at Milano in this field also will be appreciated.

I am especially interested in learning more about the properties of the diisotactic polymers and the syndiotactic polypropylenes.

Sincerely,

Best wishes

C E Schildknecht

C. E. Schildknecht
Chairman, Chemistry Department

CES/drc

Chiedere a Pasquale Farina Damusso | data copia lettera | 14/5/64

inviare da N 489 → [illegible]
(fermeli vedere quando sono fornito)

inviati estratti
16/6/64

LABORATORIO DI CHIMICA GENERALE ED INORGANICA
Istituto Chimico - Università di Napoli

NAPOLI 16/11/64

Via Mezzocannone, 4 - Tel. 313426-323382

Chiar.mo Prof.G.Natta
Istituto di Chimica Industriale
del Politecnico di MILANO
P.zza Leonardo da Vinci 32

Egregio Professore,
rispondo alla Sua lettera del 10/11/64.
L'unica cosa che vedo possibile è la eventuale aggiunta di un capitolo, relativo ai tipi di simmetria delle catene polimeriche, con esempi, nelle "Special Topics" del Volume II.
Se Lei lo ritiene opportuno, mi faccia sapere qualcosa al riguardo.
Molti cordiali saluti, ossequi alla Signora

Suo
Paolo Corradini

1) Classificazione dei gruppi di ripetizione a catena lineare (polimeri naturali e sintetici)
2) Formule per la diffrazione di strutture con vari tipi di disordine monodimensionale

Fare risposta

IUCr Commission on International Tables

October 15, 1964

Dear Professor Natta:

Both you and we would have preferred a more personal letter. Yet because of the magnitude of the correspondence and the need to accomplish the task soon, we have resorted to this form letter. We hope you will understand.

The Commission on International Tables of the International Union of Crystallography has proposed that new editions of the three volumes of International Tables be prepared over the next few years. The undersigned have agreed to coordinate suggested revisions of volumes 2 and 3. It is anticipated that neither volume will be revised drastically, but that there will be some expansion, some updating, and probably some rearrangement of material between the two volumes.

Our immediate task is to prepare detailed outlines on the proposed changes for the Commission; these outlines are due around the first of the year. We are writing to all who have contributed to volumes 2 and 3 and also to some other individuals to solicit suggestions on the revisions. We would greatly appreciate it if you would take the time to answer the relevant questions on the attached sheet. Comments on the other volumes are appreciated and will be transmitted to the appropriate individuals.

An early reply would be most helpful, particularly since we anticipate the need for detailed personal correspondence with some of the contributors after these initial answers are received. Please send your reply to either of the undersigned, preferably the one associated with the volume your remarks are most closely concerned with.

It is the wish of the Commission that its proposals to issue new editions not become general knowledge. Therefore, we request that you keep this letter and your reply confidential.

Sincerely,

David P. Shoemaker

David P. Shoemaker, for Vol. 2
Dept. of Chemistry
Room 6-229
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139

James A. Ibers

James A. Ibers, for Vol. 3
Department of Chemistry
Brookhaven National Laboratory
Upton, L.I., N.Y.

SINCLAIR PETROCHEMICALS, INC.
600 FIFTH AVENUE
NEW YORK, N. Y. 10020

January 13, 1964

Prof. Natta
Vedere dati
riguardanti
lei ricevuti

Dr. Guilio Natta
Director
Industrial Chemical Institute
Institute of Technology
Milan, Italy

Dear Dr. Natta:

Sinclair Petrochemicals, Inc. recently introduced Neohexene (3,3-Dimethyl Butene-1) in the U. S. in semi-commercial quantities. This high purity olefinic hydrocarbon is believed suitable to impart advantageous properties to both polyethylene and polypropylene thru copolymerization.

To date, ton lots of Neohexene have been supplied to domestic consumers through our pilot facilities at a price commensurate with volume. Although commercial production is perhaps a year away, the projected economics indicate a selling price of 15-20 cents/lb. at that time.

As a world renown authority on ethylene and propylene polymerization, we trust this information will be of interest.

Very truly yours,

Daniel W. Brady
Product Development

MS
Encs.

STANFORD RESEARCH INSTITUTE
MENLO PARK, CALIFORNIA

2 November, 1964

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Professor Natta:

It was a pleasure to see you again in Milano early this last month and especially to enjoy your hospitality (and your wife's) in your home. I also felt that our discussions of Gordon-like conferences were worthwhile, even though our role in initiating them will probably be a minor one, if any at all. An international committee, headed by Professor Thompson of Oxford, with representatives from chemical societies of western European countries, has plans well under way for three such conferences in 1965 and more later.

Please remember us to your wife and to your associates, especially Professors Danusso and Dall'Asta.

Sincerely,

Maurice L. Huggins

Maurice L. Huggins
Senior Research Scientist

MLH:il

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

24 August, 1964

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

644

Dear Professor Natta:

My wife and I are planning to visit Europe again this fall and we hope, once more, to get to Milano. We expect to drive from Graz through the Italian Alps, reaching Milano on Sunday, 4 October. Will you kindly make a reservation for us for that night and the following night? We would like a private bath, or at least a toilet.

I am especially anxious to see you and your associates to discuss, among other things, the advisability of initiating in Europe a series of conferences, like the Gordon Conferences in this country. Stanford Research Institute is seriously considering the organization of such conferences but, before doing so, we want to make sure that they would have the approval and cooperation of European scientists. I plan, therefore, on this trip to discuss the matter with a few leading scientists, and you are one of those whose opinions will weigh most heavily.

Since we expect to leave here on 29 August, please reply to me at the Intercontinental Hotel, Vienna, where we shall be from 6 September through 11 September.

Thank you for sending me a copy of the Italian version of our Nomenclature Report. I am confident that the translation was well done.

Kindly give our regards to your wife and to our other friends in your organization. We look forward to seeing you soon and hope to find your health improved.

Sincerely,

Maurice L. Huggins

Maurice L. Huggins
Senior Research Scientist

MLH:il
cc: Dr. T. Meisling, Zurich Office SRI
Pelikanstrasse 37, Zurich, Switzerland

POLYMER RESEARCH INSTITUTE
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS.

RICHARD S. STEIN
Director

Office: Room 167
Goessmann Laboratory
ALpine 3-3411, Ext. 615

March 2, 1964

Professor Giulio Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am very happy to send you the technical reports and reprints which you have requested. These are being sent to you by surface mail.

With best regards.

Sincerely yours,

Richard S. Stein

Richard S. Stein
Commonwealth Professor
of Chemistry

RSS:lw

Ann

April 29, 1964

Prof. C.G. Overberger,
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, New York (USA).

303

Dear Professor Overberger:

It is quite a long time that I have not had the pleasure of seeing you : I think the last time must have been a couple of years ago in occasion of your lecture at the Polytechnic here.

In the meantime I have followed your interesting work in the polymerization field through your many original publications.

The reason I am writing to you to-day is to ask you whether you would be in a position and willing to act as an expert witness in a proceeding before the District Court at Washington in connection with an important Montecatini patent application on elastomeric copolymers of olefins, in which I am an inventor.

This application was rejected by the Patent Office also in appeal, on an alleged anticipation in a prior application by DuPont and we have now a suit against the Patent Office in the District Court.

The hearing is sbheduled for June 4 and in case you could act for us we would, through Montecatini patent agents in New York and Washington, let you have all the necessary information.

Prof. Mazzanti is scheduled to be in Washington ahead of the hearing, together with Montecatini patent experts and details of the situation could be further discussed by you with them before the hearing.

I hope you will be in a position to act for us on this important case.

Time is unfortunately short and a prompt answer by you would be necessary, possibly by cable.

Thanking you for your kind attention to this, I am with cordial regards, also for your nice family,

Yours sincerely,

G.NATTA

May 15, 1964

Dr.E.Weber, President
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

our ref.347/lv

Dear Doctor Weber:

Thank you very much for your kind letter of May 11. I am very grateful to you and to the Members of the Corporation for voting to award me the honorary degree in absentia.

I will certainly write a message to be read by Dr.Ottolenghi at your Corporation dinner.

Since the Polytechnic Institute of Brooklyn has represented in the past and still represents the most important U.S. University Center in the field of macromolecular chemistry, it is an exceptional honour for me to receive such a great award.

With my sincerest thanks to you and to the Members of your Corporation, I send you kindest personal regards.

Sincerely yours,

Giulio Natta

March 24, 1964

To the President
Polytechnic Institute of Brookly
333 Jay Street,
Brooklyn 1, New York (USA)

our ref.213/lv
your letter 643-2500

Dear President:

Thank you very much for your kind letter of March 18. I deeply appreciate and am much honored at having been chosen to receive the honorary degree of Doctor of Science.

However, I am afraid that my state of health will not allow me to come to Brooklyn next June. Please, let me know the deadline for informing you about my definitive decision. In addition, I would like to know which is the length of time my after-dinner talk should cover.

Thanking you very much again, I send you my kindest personal regards.

Giulio Natta

21.12.1964

Egr. Dr. Mario F. Sartori
602 Northside Drive
Wilmington 3 - Del. - USA

Egregio Dottore,

La ringrazio molto del Suo gentile ricordo che ho gradito moltissimo. Anch'io mantengo un ottimo ricordo delle persone della DuPont che ho conosciuto.

Sarò lieto di incontrarLa a Milano se Lei avrà occasione di venire in Italia nel prossimo anno.

Insieme a mia moglie invio a Lei e Signora i più vivi auguri.

June 19, 1964

Prof.C.E.Schildknecht, Chairman
Chemistry Dept.,
Gettysburg College,
Gettysburg, Pennsylvania

our ref.250/lv

Dear Professor Schildknecht:

I wish to inform you that on June 16, 1964, we sent you, under separate cover, the reprints required in your letter of April 1 on ethylenic and vinyl-type polymerizations and polymers.

I mostly apologize for the delay incurred and do hope they still are of interest to you.

With kindest regards,

Giulio Natta

Dec.9, 1964

Mr.David P.Shoemaker,
Dept. of Chemistry,
Room 6-229
Massachusetts Institute of Technology,
Cambridge, Massachusetts 02139

our ref.844/lv

confidential

Dear Mr.Shoemaker:

With regard to your letter of Oct.15, 1964, I would propose the possible addition of the following items to the "Special Topics", Vol.II, of the International Tables:

1) A Classification of Linear Chain Repetition Groups (of interest in the field of natural and synthetic macromolecules).

2) Formulae for the Diffracted Intensity by Structures with Various Types of Monodimensional Disorder (of interest in the field of disordered layer structures).

On item 1), see for instance:

- A.Klug, F.H.C.Crick, H.W.Wyckoff, Acta Cryst. 11, 199 (1958);
- P.Corradini, Rend.Acc.Naz.Lincei, (8) 28, 632 (1960).

On item 2), see for instance:

- S.B.Hendricks, E.Teller, J.Chem.Phys. 10, 147 (1942);
- H.Jagodzinski, Acta Cryst. 2, 201 (1949); ibid.2, 208 (1949); ibid. 2, 298 (1949);
- J.Kakinoki and Y.Komura, J.Phys.Soc.Japan, 7, 30 (1952); ibid.9, 169 (1954); ibid. 9, 177 (1954);
- G.Allegra, Nuovo Cimento, 21, 786 (1961); ibid.22, 661 (1961); ibid.23, 502 (1962);
- G.Allegra, Acta Cryst. 17, 579 (1964).

The two topics might be possibly dealt with respectively by my co-workers Prof.Corradini and Prof.Allegra.

Looking forward to hearing from you on this matter, I send you kindest regards.

Giulio Natta

Prof.

10.11.1964

Chiar.mo Prof. Paolo Corradini
Direttore Istituto di Chimica
Generale dell'Università

N a p o l i - Via Mezzocannone 4

ns. rif. N. 791/rl

Caro Corradini,

ricevo la lettera di cui Le unisco copia.
Penso che si potrebbe unire alle tabelle relative alla cristallinità una tabella con le strutture dei polimeri cristallini. Lei cosa ne pensa?

Cordiali saluti.

G. Natta

All/

January 22, 1964

Mr. Daniel W. Brady
Product Development
Sinclair Petrochemicals, Inc.
600 Fifth Avenue
New York, N.Y. 10020

our ref. 40/eg

Dear Mr. Brady:

Thank you very much for the information concerning neohexene.

In order to examine, from a practical viewpoint , its possibilities of use, I would like to know its selling price for amounts corresponding to a few tonns/month. We already had the possibility to examine this compound with regard to the polymerization of this monomer and we generally observed a very low reactivity. This notwithstanding we will examine this again, especially using catalysts recently set up; therefore I would also like to receive a few samples (3-4 pounds) of neohexene to examine its behaviour in polymerizations and copolymerizations.

Kindest regards.

G. Natta

July 31, 1964

Mr.Melvyn A.Kohudic
Editor - SPE Transactions
65 Prospect Street,
Stamford, Conn.06902 (USA)

our ref.177/lv

Dear Mr.Kohudic:

I return you the manuscript you sent me with your letter of March 5, 1964.

I mostly apologize for the delay incurred, also due to the fact that the judgement had some laborious aspects.

My opinion is expressed in detail in the form enclosed in two copies.

Kindest regards,

Giulio Natta

Giulio Natta

Encl/

September 3, 1964

Prof. Maurice L. Huggins
Stanford Research Institute
Menlo Park, California
Intercontinental Hotel
Vienna

our ref. 644/eg

Dear Professor Huggins:

I was pleased to learn from your kind letter that you will be in Milan with your wife on October 4 and 5. My wife and I will be very glad to meet you both. I have booked a double-room (with bathroom) for you at the Excelsior-Gallia Hotel.

I am also glad that you purpose to initiate in Europe a series of conferences, like the Gordon Conferences in the U.S. I think that this enterprise is very interesting and will meet the favour of numberless European research-chemists.

On your visit to Milan, I will be pleased to discuss on the possibility to study new proposals of nomenclature for stereoregular polymers having more complex structures (e.g. containing cyclic nuclei), which cannot be sufficiently defined on the basis of the proposals made in our Nomenclature Report.

Looking forward to meeting you soon, I send kindest regards to you and Mrs. Huggins.

G. Natta

Feb.25, 1964

Prof.Richard S.Stein, Director
Polymer Research Institute,
University of Massachusetts,
Amherst, Mass.01003 - U.S.A.

Room 167, Goessmann Laboratory

Dear Professor Stein:

Thank you very much for your kind letter of Dec.11 and for the enclosures.
We are very interested in the papers of your Institute and would mostly appreciate your sending us one copy of the following technical reports: Nos. 26, 33, 33a, 40, 43, 50, 51, 52, 53, 54, 58, 59, 62, and of the following reprints: 4, 8, 10, 12, 13, 15, 16, 20, 22, 24, 26, 30, 31, 40.

Thanking you very much in advance, I send you my kindest regards.

Giulio Natta

SOCIETY OF PLASTICS ENGINEERS, INC.

Cantello SPE Award

Office of Chairman
International Award Committee

Reply to:
Jules W. Lindau III
Southern Plastics Company
P. O. Box 815
Columbia, South Carolina 29202

October 21, 1964

Dr. Giulio Natta
Instituto de Chimica Industrial del Politenico
Piazza Leonardo de Vinci 32
Milano, Italy

26 OTT 1964
758

Dear Dr. Natta:

I do appreciate your letter of October 1st concerning the selection that you would choose for the International Award. After reviewing the conditions with our General Award Committee, we find that it is not possible for the members of our International Award Committee to nominate an individual for that Award. I am sure that you can understand the feelings of the Committee in this connection, since it might undoubtedly lead to some unethical practices in the future.

I agree that Professor Flory, whose activity in the field of polymer science, is worthy of consideration. Perhaps, in another award period, it might be possible to offer his name for this recognition.

I am sincerely grateful for your thoughtfulness but regret that it was not possible for you to make a selection from any of the five (5) names that were offered by the Canvassing Committee. It is my hope that you will attend the Society of Plastics Engineers Annual Technical Conference in Boston in March and that we might have an opportunity to meet at that time.

Sincerely,

J. W. Lindau III

J. W. Lindau III

JWL:gh

cc: Mr. R. D. Forger

SOCIETY OF PLASTICS ENGINEERS, INC.

Office of Chairman,
International Award Committee

Reply to:
Jules W. Lindau III
Southern Plastics Company
P.O. Box 815
Columbia, S. C. 29202

September 16, 1964

Dr. Giulio Natta
Instituto de Chimica Industrial del Politenico
Piazza Leonardo de Vinci 32
Milano, Italy

Dear Dr. Natta:

I have delayed writing to you until this time, since I was waiting to receive the information from the Canvassing Committee, whose responsibility it is to offer the names of distinguished plastics scientists and engineers to our Committee, from whom we would make our final selection for the International Award.

The list of nominees is to be forwarded to you directly from the National Office of the Society of Plastics Engineers, along with the forms on which you may indicate your selection.

I would like to assure you that it is not necessary to make a selection from any of the individuals named, if you feel that none of them fulfill the requirements for this Award. It is my opinion that it would be better judgment not to make the Award than to give it to an individual whose activity in this specialized field would lower the stature of this form of recognition.

Your promptness in advising me of your decision will be sincerely appreciated. It may be necessary to have more than one ballot before achieving the final selection. As you know, it will be necessary to advise the recipient of this Award, of his selection as soon as possible, in order that he might have time to prepare the paper which he will offer at our Annual Technical Conference.

Your effort in making the proper selection for this Award is not only personally appreciated but does receive the sincere gratitude of the entire Society.

Sincerely,

J. W. Lindau III

J. W. Lindau III

JWL:gh

cc: Mr. R. D. Forger

SOCIETY OF PLASTICS ENGINEERS, INC.

Office of Chairman
International Award Committee

Reply to:
Jules W. Lindau III
Southern Plastics Company
P. O. Box 815
Columbia, South Carolina

820

November 19, 1964

Dr. Giulio Natta
Instituto de Chimica Industrial del Politenico
Piazza Leonardo de Vinci 32
Milano, Italy

Dear Dr. Natta:

I am sure that you will be pleased to learn that Dr. Turner Alfrey, Jr. has been selected by our International Award Committee for the honor of this Award. According to your balloting, Dr. Alfrey received first preference from four members of the Award Committee. Mr. Robert T.Schwartz received three preferences for first place and Dr. Albert G. H. Dietz was third in order of your selection.

As your Chairman, I certainly express the appreciation of the Society of Plastics Engineers for your thoughtful balloting for the selection of the individual whom the majority feels is most worthy of this recognition.

I do hope that you will be able to attend the Annual Technical Conference in Boston. The Award will be made at the banquet on Tuesday evening, March 2nd. Dr. Alfrey will deliver his lecture during the afternoon of March 3rd. I will consider it a privilege to be with you at that time.

Sincerely,

J. W. Lindau III

J. W. Lindau III

JWL:gh

cc: Mr. Guy A. Martinelli

cc: Mr. Robert D. Forger

RESEARCH CENTER

Spencer Chemical Division

Gulf Oil Corporation

9009 West 67th Street, Merriam, Kansas 66204
Telephone RAndolph 2-3200 area code 913

mon e
mia fate
mia fa traduzione
l'un indirizzo
Ren Ren

September 11, 1964

Professor Dr. G. Natta
Polytechnic Institute for Industrial Chemistry
Milan, Italy

Dear Prof. Dr. Natta:

With regard to your letter of September 3, 1964, I am sorry that I am unable to send you a copy of my text because it will not be completed for several months. Therefore, in line with your comments, please feel free to wait before writing your contribution. If, on the other hand, you wish to proceed at this time, let me give you a few more details about the introductory chapter.

Polyolefins which are sold in the marketplace today are direct descendents of a few significant experiments which were carried out in your laboratory and several others around the world. It is my intention to have those people who were primarily responsible for the early experiments to write brief descriptions of their discoveries. These contributions will constitute the bulk of the first chapter and will represent the major attention which the various catalyst systems will receive. The remainder of the book will deal mostly with polyolefin structure, properties and correlations between structure and properties.

You might be interested in knowing that I have already received contributions from Phillips Petroleum Company, and Imperial Chemical Industries, Ltd., and have been promised contributions from Standard Oil Company (Ind.) and Prof. Dr. Ziegler.

I hope this answers your questions and would like to send my best wishes for your health.

Sincerely,

W. E. Smith

WES:wlb

Parlerne con Dott. Sala
data copia a
17/9/64

SPENCER

SPENCER

Spencer Chemical Company
Research Center
9009 WEST 67TH STREET
Merriam, Kansas

May 6, 1964

Professor Dr. G. Natta
Polytechnic Institute for Industrial Chemistry
Milan, Italy

Dear Prof. Dr. Natta:

Thank you for your kind letter of April 17, 1964. Your suggestion that Dr. G. Dall'Asta might find time to write a contribution for my book on polyolefins meets with my full approval. We all know of his outstanding contributions to polymer science and would appreciate his assistance.

I would like to tell you just a little bit more about the book itself. The bulk of the book will deal with the properties of polyolefins and the parameters which influence those properties. These topics will be dealt with mostly from the standpoint of the most recent work reported in the various periodicals. I plan to write this portion of the book myself. The area where I would appreciate your assistance is in the introductory chapter, where I would hope to deal with the various catalyst systems from a historical point of view. I would hope that your contribution would include some of the very early history of the Natta catalysts, perhaps giving in minute detail the first experimental results. This account might also include the early recognition of stereospecificity in polyolefins and how this realization has opened up many new areas for further research.

An entire book on your research efforts in the field of polyolefins would not be sufficient. Nevertheless, in view of the nature of the book which is planned, I am thinking in terms of a contribution totaling approximately 10 to 20 typewritten pages. I shall leave this to your discretion.

Thank you very much for your assistance in this matter. May I wish you the best of health.

Sincerely,

W. E. Smith

WES:gb

data esta a Dall'Asta 12/5/64

Dec.14, 1964

Mr.Abdul H.Suwardi,
Dept.of Chemical Engineering,
University of West Virginia,
Morgantown, W.Va. (U.S.A.)

our ref.842/lv

Dear Mr.Suwardi,

With regard to your letter of Dec.1, I confirm you that I studied a formaldehyde plant realized by Montecatini, and I am still studying it to improve the present yields, which however are already high; our purpose is to make them quantitative.

Unfortunately I cannot give you further information on the catalyst used in addition to what stated in the Montecatini patent: Natta et al. It.Pat.589718 (1959) - dep.Oct.28,(1958).
Some kinetic data on the catalyst based on molybdenum iron oxides are given in two papers, one by M.Dente, R.Poppo and I.Pasquon published in Chimica e Industria, and one by Dente and Pasquon in press in the same journal. As soon as the reprints of these papers are available, I will send them to you. For further information, see also: Greco and Soldano, Chem.Ing.Tecknik, 31 (1959) 761.

Sincerely yours,

Giulio Natta

Cartelle
SPE

Jan.22, 1964

Dr.Jack Fuller, SPE President
Polymer Machinery Corp.
1455 Wilbur Cross Parkway,
Berlin, Conn. (USA)

Dear Doctor Fuller,

I mostly regret I cannot accept your kind invitation to participate in the SPE International Award Reception. Please forward my congratulations and best regards to Dr.Marvel.

With my best thanks, accept my kindest personal regards.

Giulio Natta

Carbelle
SPE Award

Oct.1, 1964

Mr.Jules W.Lindau III
Southern Plastics Company,
P.O.Box 815,
Columbia, S.C. 29202 (U.S.A.)

our ref.694/lv

Dear Mr.Lindau:

With regard to your letter of Sept.16, concerning the selection for the SPE award, I would like to know whether I am still in time to make a new proposal.

If so, I would like to propose Prof.Paul J.Flory, who is well known all over the world for his fundamental research in the field of macromolecular chemistry, and in particular on the physical properties of macromolecules, and on the relationship between properties and structure. Moreover, he had developed the theory of elasticity of macromolecules, which is of great interest in the field of natural synthetic rubbers.
Prof.Flory worked for both University laboratories and for Research Centers not belonging to Universities, such as the Mellon Institute. At present, he is full professor at the Stanford University, California.

I wish to inform you that I do not know sufficiently the other candidates you refer to in your letter to make a right choice.

Kindest personal regards.

Giulio Natta

Cartella SPE

Nov.24, 1964

Dr.J.W.Lindau III,
Southern Plastics Company,
P.O.Box 815
Columbia, South Carolina (U.S.A.)

our ref.820/lv

Dear Doctor Lindau,

Thank you very much for your kind letter of Nov.19 and for the information you have given to me.

I am very glad indeed that Dr.Turner Alfrey Jr. has been selected for the S.P.E. Award.

I mostly regret informing you that, due to my state of health, I shall not be able to participate in the Annual Technical Conference in Boston next March.

Kindest regards,

Giulio Natta

SPENCER

Spencer Chemical Company
Research Center
9009 WEST 67TH STREET
Merriam, Kansas

March 24, 1964

File: 9900

Professor Dr. G. Natta
Polytechnic Institute for Industrial Chemistry
Milan, Italy

Dear Professor Dr. Natta:

Dall'Asta
vuole
fare lei?

I am preparing a book on the subject of "Polyolefins". In the introductory chapter I would like to include short, first-person accounts of the discoveries which have most influenced the world's thinking in this area. Therefore, I would consider it an honor to include in my book a one or several-page account describing the earliest experiments in which the "Natta" catalysts were discovered. I know that your schedule must be overloaded, and would not expect more than a very short contribution. If you find time to do this favor, I would appreciate your contribution by September 1, 1964.

I understand through friends that you have been in ill health lately. May I send you best wishes for a speedy recovery from both myself and my colleagues.

Sincerely yours,

W E Smith

W. E. Smith

WES:jdr

MONTECATINI

Società Generale per l'Industria Mineraria e Chimica - Anonima - Capitale versato L. 180 miliardi

Sede in Milano Largo Guido Donegani 1-2

Istituto Unificato per le Ricerche di Base
"G. Donegani,,

Rispondere a
MONTECATINI
Istit. Unif. per le Ricerche di Base "G. Donegani,,
Largo Guido Donegani 1-2 Milano (134)
Tel. 6333 - 6334 Telex: 31-416 GABBRO
Telegr.: GABBRO-MILANO

ISTITUTO CHIMICA INDUSTRIALE
POLITECNIDO DI MILANO
P.zza Leonardo da Vinci 32
M I L A N O

Milano, 8.5.64

Att.ne Dr.ssa Lamma

pc.UNSE

Vi inviamo la fattura n.211/17 dell'albergo Touring,relativa alla permanenza a Milano del prof.M.Szwarc nei giorni 26-28 aprile.

Vi preghiamo di provvedere direttamente al pagamento.

Cordiali saluti.

M O N T E C A T I N I

All

* trasmessa alla segret. 24

THE CHEMICAL ABSTRACTS SERVICE

DIRECTOR: D. B. BAKER
ASSISTANT DIRECTOR: FRED A. TATE
ACTING EDITOR: FRED A. TATE
NOMENCLATURE DIRECTOR AND
EXECUTIVE CONSULTANT: LEONARD T. CAPELL
RESEARCH AND DEVELOPMENT
DIRECTOR: KENNETH H. ZABRISKIE, JR.

TELEPHONE CYPRESS 3-2085
TELETYPE 614 759-0016
THE OHIO STATE UNIVERSITY
COLUMBUS, OHIO 43210

Air

May 8, 1964

Dr. Giulio Natta
Politechnico
Milan, Italy

Dear Dr. Natta:

The author index to the current issues of Chemical Abstracts is being compiled.

In order to facilitate the indexing of your work may we have your full given name, as well as those of your co-author(s) on the work appearing in Makromol. Chem. 70, 206 (1964).

An immediate reply will be greatly appreciated. A pre-addressed card is enclosed for your convenience. Please return the card by Air Mail. Thank you.

Yours very truly,

Myriame H. Wilson
Author Records Department

Natta G
Zambelli A
Pasquon I
Porri G
De Luca D
15/5/64

The Christian Science Monitor
AN INTERNATIONAL DAILY NEWSPAPER
Published by The Christian Science Publishing Society
One Norway Street, Boston, Massachusetts 02115

EDITORIAL DEPARTMENT

June 5, 1964

Dr. Ginlio Natta
Polytechnic Institute of Milan
Milan
Italy

Dear Dr. Natta:

Recently, the statements of two Nobel Prize winners, urging caution in the adoption of fluoridation of public water supplies, have come to our attention. The speed with which fluoridation is being promoted seems to be in conflict with these two statements. Therefore, I am soliciting the views of other Nobel Prize winners in chemistry and medicine on this question.

The statements referred to above are by the late James B. Sumner, Ph.D.,Director of Enzyme Chemistry, Department of Biochemistry and Nutrition, Cornell University, Ithaca, New York, and Hugo Theorell, M.D., Head, Biochemistry Department, Nobel Medical Institute, Stockholm, Sweden.

Dr. Sumner stated in 1957:

"We ought to go slowly. Everybody knows fluorine and fluorides are very poisonous substances and we use them in enzyme chemistry to poison enzymes, those vital agents in the body."

Dr. Theorell stated in 1958:

"...it may be said that even if the risks from the viewpoint of enzyme chemistry connected with a water fluoridation up to 1 ppm should not be exaggerated, yet the distance to toxic doses is none the less so short as to justify some hesitation...Fluoridation of tap water should at this stage not be allowed."

This statement was reaffirmed this year when Dr. Theorell stated:

"My own opinion is as before that compulsory fluoridation in Sweden should be postponed until one can be absolutely sure that it is harmless."

I should appreciate knowing your views on this subject. Thank you. I am enclosing a self-addressed envelope for your use.

Sincerely,

Brian Justin Hoel

Brian Justin Hoel
Staff Writer

Enclosure

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK, N. Y. 10021
CABLE ADDRESS: NYACSCI

30 April 1964

Dear Doctor Nata:

Some weeks ago you received a list of the Fellows of The New York Academy of Sciences with our request for your cooperation in helping us in the organization of key committees for the Sesquicentennial Fund Campaign for a World Science Center.

Originally we had requested the return of this material before April 15, 1964. Because of the major importance of this screening in our over-all plans, we write you now to suggest that you take additional time, if you wish, in submitting your recommendations.

Our need for these names is still of an immediate nature, and we hope you will find it possible to complete your work and return the list to us at the earliest possible date.

Thank you very much for your cooperation in our efforts to establish this vital Center which will touch all of World Science.

Most sincerely yours,

Eunice Thomas Miner

Eunice Thomas Miner
Executive Director

ETM:cfr

Doctor Giulio Nata
Via Mario Pagano 54
Milano, Italy

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK, N. Y. 10021
CABLE ADDRESS: NYACSCI

9 April 1964

Doctor Giulio Natta
Via Mario Pagano 54
Milan, Italy

Dear Doctor Natta:

At long last The New York Academy of Sciences has begun its definitive planning for the erection, in New York City, of a World Science Center. This magnificent structure, costing approximately twenty-five million dollars, will provide headquarters for the amplified services to world science which are carried on by your Academy.

We are beginning the organization of the many committees which will be necessary in the raising of the monies which will aid us in accomplishing this task, probably the most important single activity for science in our time.

We write to ask for your cooperation and help in this great project. We hope you will initially allow us the use of your name as a Member of the Sponsoring Committee for this major project. The tentative site for the World Science Center will be in Manhattan on a plot located adjacent to the Lincoln Center area, thus joining together the Arts and the Sciences in one great complex.

New York State law requires that we have written permission for the inclusion of your name on our letterhead and other printed material, and we hope that you will give us this consent by signing and returning, in the enclosed envelope, the form which has been prepared for this purpose.

Our eighteen-thousand colleagues, members of the "Academy," join me in making this important request. May we have the favor of an early reply?

Most sincerely yours,

J. Joseph Lynch, S.J.

J. Joseph Lynch, S.J.
President

JJL:cfr
Enclosures

non [illegible]

THE NEW YORK ACADEMY OF SCIENCES

2 EAST SIXTY-THIRD STREET
NEW YORK, N. Y. 10021
CABLE ADDRESS: NYACSCI

20 March 1964

Dear Doctor Nata:

At long last we are planning a fund-raising effort with a goal of thirty-five million dollars in order to erect, in New York City, a World Science Center which, as you know, will cost at least twenty-five million dollars. The additional sum is for an endowment fund of ten-million dollars to provide more money for our Conferences and the expanding program of aid to the world of science that The Academy so effectively maintains. The Academy will observe its Sesquicentennial in 1967, and our goal is the completion of the Fund in that year.

We hope that you will help to further the efforts we are making to get this drive under way. Enclosed is a list of the Fellows of The Academy. Will you review the list and code it on the basis of those whom you think would be active in the following stated parts of our campaign. Will you select and list: 1) suggested names for twelve possible Honorary Chairmen from the science fields, 2) 200 suggested names of scientists from the list enclosed (or of any other persons you deem desirable) who will represent the various disciplines of the fields of science or of activities associated with the sciences, who, in your opinion, would participate in the drive and its aims, and 3) those names whom you feel would be individual donors, or lead us to sources for gifts of one-thousand dollars or more. Will you code them as follows:

1) Possible Honorary Co-chairmen.
2) Possible Honorary Members of various Campaign Committees.
3) Possible Donors of at least one-thousand dollars or more.

We have an immediate need for this list which is to be a key factor in the organization of the Sesquicentennial Drive. Therefore we would

appreciate your cooperation as soon as possible; but, in any event, please return the list to us no later than 15 April 1964.

Thank you very much for your help in this important matter for the future of The Academy.

Most sincerely yours,

Hilary Koprowski, Chairman
Building and Development Committee

Eunice Thomas Miner
Executive Director

cfr

Enclosure

Doctor Giulio Nata
Via Mario Pagano 54
Milano, Italy

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 3528
WASHINGTON 7, D.C.

Ack
cercare altre lettere

March 23, 1964

Dr. Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

The General Advisory Committee to the United States Atomic Energy Commission wishes to express its sincere appreciation to you for submitting nominations for the 1964 Enrico Fermi Award.

During the next few months the General Advisory Committee will evaluate the qualifications of all of the scientists and engineers who have been proposed for this Award. The Committee will make its recommendations to the Atomic Energy Commission for the person or persons to receive the Award.

The nominations that you have made have added to the assurance that all worthy candidates will be considered when the final selection for this international Award is made. Thank you very much for your assistance.

Sincerely,

L R Hafstad

L. R. Hafstad
Chairman

December 1, 1964

Chairman of Department of Chemical Engineering

Milan Poly technic Institute,

Milan, Italy.

842

Dear Sir,

I am astudent of West Virginia University, Department of chemical Engineering, studying in design course. My student group is studying to design poly oxymethylene plant, which is connected with the production of formaldehyde. We found that production of formaldehyde by Montecatini Co. to be a good process, and this process was developped by Mr. Giulio Natta cs. at Milan Poly technic Institute.

The purpose of this letter is to ask for additional data for studying in design process, which is connected with the properties of the catalyst used in the above mention process.

The needed additonal data are:

1. Commercial name of the catalyst.
2. Shape and size, dimension of the catalyst.
3. Catalyst voids and pores.
4. Bulk and material density of the catalyst.
5. Space velocity in connection with the production of formaldehyde through oxydation of methanol by air.
6. Working temperature.
7. Life time of the catalyst.
8. Price of the catalyst.

I hope you can help us for the above additional data for study purposes and thank you very much for your help.

Sincerely yours,

Abdul H. Suwardi

Abdul H. Suwardi
Department of Chemical Engineering,
University of West Virginia
Morgantown , W.Va.
U.S.A,

September 3, 1964

Dr. W.E. Smith
Spencer Chemical Co.
Research Center
9009 West 67 Street
Merriam, Kansas (USA)

our ref. 662/eg

Dear Dr. Smith:

With regard to our previous correspondance I wish to inform you that before publishing the introduction you require for your book on polyolefins, I would like to read the text, even if only in a tentative draft.

This will also allow me to see whether this text takes into account the results arising from the considerable European literature on that topic. Moreover, I think that only by knowing your text, I might write the introduction in the most suitable way.

Looking forward to hearing from you, I send kindest personal regards.

G. Natta

April 17, 1964

Dr.W.E.Smith,
Spencer Chemical Company,
Research Center,
9009 West 67 Street,
Merriam, Kansas (U.S.A.)

our ref.277/lv

Dear Mr.Smith:

Thank you for your letter of March 24, 1964. Since my schedule is overloaded, I can accept to write an article for your volume on polyolefins, only if it might be written with the co-operation of a co-worker of mine, Dr.G.Dall'Asta.

Please, let me know which are the various chapters of the book, from which points of view this complex topic will be dealt, and whether the different aspects (crystallinity, crystalline structure, steric structure, steric purity, catalysis, catalysts, physical properties and applications) are considered or are part of it.

Our research works are not limited to poly-alpha-olefins, though they represent the products of the greatest practical importance; the most recent works done with the co-operation of Dr.Dall'Asta deal with the problem of stereo-regular polymers starting from hydrocarbons different from alpha-olefins, such as linear or cyclic internal olefins. I think that this topic cannot be left out.

Looking forward to hearing from you, I send you my kindest regards.

Giulio Natta

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 3528
WASHINGTON 7, D.C.
ENRICO FERMI AWARD

January 6, 1964

Dear Sir:

The General Advisory Committee invites you as an individual to submit a nomination for the next Enrico Fermi Award. This Award is made under the provision of Section 157b(3) of the Atomic Energy Act of 1954 which states that, ".....The Commission may also, upon the recommendation of the General Advisory Committee, and with the approval of the President, grant an award for any especially meritorious contribution to the development, use, or control of atomic energy".

The first award under this Act was made on November 16, 1954, to Enrico Fermi. In December of 1955 the General Advisory Committee recommended to the Atomic Energy Commission that an Enrico Fermi Award be established on a permanent basis, and that it be international in scope, available to scientists of all nations. The recommendations, together with others pertaining to the Award, were approved by the Commission early in 1956.

The Commission determined that the Award should be made not more often than annually, and not necessarily annually. The recipients of the Award have been Dr. John von Neumann, Dr. Ernest O. Lawrence, Dr. Eugene P. Wigner, Dr. Glenn T. Seaborg, Dr. Hans A. Bethe, Dr. Edward Teller, and Dr. J. R. Oppenheimer.

The General Advisory Committee now has the duty of soliciting nominations for the next Award and of recommending a candidate or candidates to the Commission. The Committee and the Commission wish no worthy candidate to be overlooked. In making a nomination, please place principal emphasis on the statement of scientific and technical achievements upon which the nomination is based. Please minimize such data as can be found in standard reference works.

You may wish to know that nominees who fail of selection are retained on the Committee's list for further consideration for two additional years. If the candidate has not been selected in three consecutive years, his or her name will be removed from the list unless the candidate has been renominated in that time or until renominated.

Nominations for the next Award should be received by the Chairman, General Advisory Committee, U.S. Atomic Energy Commission, P.O. Box 3528, Washington 7, D.C., not later than March 1, 1964. Your asistance in making nominations will be greatly appreciated.

Sincerely yours,

Manson Benedict

Manson Benedict
Chairman

Dr. Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

GEORGE H. WETTACH
17-20 WELL DRIVE
FAIR LAWN, NEW JERSEY 07410

April 21, 1964

Prof. Dr. Giulio Natta
Institute of Technology
Milan, Italy

Dear Professor Natta:

May I trouble you for your autograph for my collection? I would be both proud and grateful if you would favor me with it.

For your convenience I enclose a card and an addressed envelope and an International Reply Coupon.

With many thanks in advance, I am

Sincerely yours,

George H. Wettach

in hand
2/5/64

U. S. NAVAL PROPELLANT PLANT

INDIAN HEAD, MD.

IN REPLY REFER TO
Undersigned
RR/GT:mdl

14 July 1964

Prof. Giulio Natta
Istituto di Chemica Industriale Politecnico
Milano, Italy

Dear Prof. Natta:

Here at the Naval Propellant Plant we have several programs dealing with problems related to polymeric systems. Some of the systems under study belong to the category of non-saturated linear hydrocarbons crosslinked either through the olefic bond or by condensation reaction of functional groups at the end of the polymer chain.

A great deal of emphasis is also on the relationship between molecular structure and mechanical properties.

The last week of August I will be in Italy, and on the 26th I will be in Milan. I would appreciate it very much if at this date I could visit with you or with someone of your staff and discuss some of our problems.

I hope this date is of your convenience, and I am looking forward to the pleasure of making your personal acquaintance.

Awaiting for your kind reply, I am

Very truly yours,

Giorgio Tesi
GIORGIO TESI
Associate Director
for Research

Prof. a Milano
2-3 sett.
9-sett. (mercoledì)
se (mercoledì) non è
a mercoledì o giovedì
partiamo
~~ott. Chiamare telefonicamente~~
~~a Cristina~~

ha fissato con
Mazzanti
26/8/64 in
Montecatini

WEST VIRGINIA UNIVERSITY
COLLEGE OF ENGINEERING, MORGANTOWN, W. VA.

DEPARTMENT OF CHEMICAL ENGINEERING

June 8, 1964

Professor Giulio Natta
Politecnico di Milano
Milan, Italy

Dear Professor Natta:

It was indeed a pleasure to meet with you on the occasion of our recent visit to Milan, to be shown the facilities and to discuss the educational program of the Politecnico. My sincere thanks for the courtesy and kindness accorded us.

I take this opportunity to convey to you my best personal regards and very best wishes.

Sincerely yours,

H. P. Simons

H. P. Simons, Chairman
Department of Chemical Engineering

HPS/cm

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF CHEMISTRY
LOS ANGELES, CALIFORNIA 90024

April 8, 1964

Professor Dr. G. Natta
Institute di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta:

I read in a recent issue of the Philadelphia paper that you were to receive the John Scott Award in Milan on April 3. May I add my very sincere congratulations.

Sincerely,

S. Winstein

S. Winstein
Professor of Chemistry

SW/kh

June 25, 1964

Mr. Brian Justin Hoel
The Christian Science Monitor
One Norway Street,
Editorial Department
Boston, Massachusetts 02115 (USA

our ref. 440/eg

Dear Mr. Hoel:

Thank you for your letter of June 5. I fully understand the importance of the problem you submit to me.

Though I have not had occasion to study the toxic effect of fluoridized compounds, the information I get in this field made me join what stated by Dr. Theorell. In fact it is necessary to adopt considerable cautions in the fluoridization of tap waters.

Kindest regards.

G. Natta

May 11, 1964

Dr. Eunice Thomas Miner
The New York Academy of Sciences
2 East Sixty-Third Street
New York, N.Y. 10021 (USA)

Dear Mr. Miner:

With regard to your letters of March 20 and April 30, I wish to inform you that I am a Member of several European Academies that are passing through far greater economic difficulties than yours. Therefore it is extremely difficult to help you somehow in Europe.

I also received the list of the Fellows of the N.Y. Academy of Science, but I know too little both the persons and the American environment, to make a choice according to your desire.

With kindest regards.

G. Natta

Feb.25, 1964

Mr.Manson Benedict, Chairman,
General Advisory Committee,
U.S.Atomic Energy Commission,
P.O.Box 3528
Washington 7, D.C. (U.S.A.)

our ref.129/lv

Dear Sir:

Thank you very much for your letter of Jan.6, 1964, and for kindly asking me to propose some names of scientists for the next Enrico Fermi Award.

Even if I am a chemist, and therefore I am not so qualified as a physicist, I wish to draw your attention on the following three scientists I think worth of consideration.

1) Alvin M.Weinberg - Director of the Oak Ridge Laboratories -
He has greatly contributed to the physics of nuclear reactors both with his theoretical studies on the neutronic chain reactions, and with the leading part he had in conceiving and achieving reactors of the homogeneous type.

2) Otto Hahn (Nobel Prize winner, in 1944, for chemistry).
He gave a very important contribution in the field of radiochemistry with his discovery of radiothorium, of mesothorium, of protoactinium and finally of the fission of uranium and thorium.
This last discovery has opened the path to the possible practical use of nuclear energy.

3) C.H.Townes - Rector and Professor of Physics at the Massachusetts Institute of Technology.
He has developed excellent studies on the molecular structure of some compounds (ammonia) and on coherent lights.

Thanking you very much again, I send you my kindest regards.

Giulio Natta

April 15, 1964

Prof. S. Winstein,
Dept. of Chemistry,
University of California,
Los Angeles, California, 90024

Dear Professor Winstein:

Thank you very much for kindly writing to me on the occasion of my being chosen as recipient of the John Scott Award. Your congratulations were very gratefully received.

Kindest regards,

Giulio Natta

Washington 23 settembre 1964

Caro professore

ritengo doveroso, e penso lei lo gradisca, darle qualche notizia sulle mie attività e sul mio lavoro negli Stati Uniti.

Mi sembra di potermi dire con sicurezza che la mia conferenza alla Gordon Conference ha avuto un buon successo ed ha notevolmente interessato i numerosi spettroscopisti presenti. In tale conferenza ho discusso i più recenti risultati dei miei lavori di quest'ultimo anno. Essi riguardano lo studio della conformazione, tattricità e cristallinità dei polimeri mediante lo spettro infrarosso. Ho riportato inoltre alcuni risultati dei calcoli in coordinate normali sul polibutadiene 1-2 sindiotattico e sul fluoruro di vinile e vinilidene. Inoltre ho presentato alcuni calcoli sulla struttura della catena dei copolimeri etilene-propilene.

Sono stato invitato a tenere diversi seminari in varie città americane (Minneapolis, Pittsburgh, Dayton, Ottawa). Per non interrompere troppo a lungo il mio lavoro qui a Washington, mi recherò a fare i seminari durante i prossimi due mesi di permanenza negli stati Uniti.

Ho già scritto il testo di una lettera all'editore sulla struttura della catena del polivinilidene fluoruro; le invierò tale testo per avere la sua approvazione. In questi mesi di tranquillità cercherò di scrivere il testo

dei lavori che riguardano le ricerche discusse alla Gordon Conference.

Qui a Washington mi sto occupando di spettroscopia infrarossa ad altissima risoluzione in un laboratorio del National Bureau of Standards molto attrezzato e tra persone molto preparate. Questo laboratorio è l'unico a possedere uno strumento di tale potere risolutore.
Io sto quindi cercando, per il breve tempo disponibile, di apprendere le tecniche sperimentali ed i metodi di interpretazione. Spero quindi di trasferire a Milano un po' di queste conoscenze e di queste tecniche per poter ulteriormente elevare il livello scientifico del laboratorio infrarosso dell'Istituto. Penso che questo le farà piacere.

Se durante il mio soggiorno negli Stati Uniti posso fare qualcosa che lei ritiene utile o necessario a lei o all'Istituto, sarò ben lieto di accontentarla.

Coi più vivi saluti

Giuseppe Zerbi

G. Zerbi 222.02
U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
WASHINGTON 25, D. C.

OFFICIAL BUSINESS

1/10/1964

Egr. Dr. G. ZERBI 222.02
U.S. Department of Commerce
National Bureau of Standards
Washington 25, D.C. - USA

Caro Zerbi

sono lieto delle notizie che Lei mi dà sul Suo viaggio e soggiorno negli USA, con la Sua lettera del 23.9.

Cerchi di utilizzare il tempo meglio che può, soprattutto per approfondire le Sue nozioni nei campi di lavoro che Le interessano e per allacciare rapporti di amicizia con le persone di maggior valore.

Leggerò con molto interesse sia le relazioni sulla Gordon Conference sia i lavori che intende pubblicare.

Molti cordiali saluti ed auguri.

(Prof. G. Natta)

USA 1965

Ferr

April 9, 1965

Dr. R.J. Armstrong
Vice President-Research
Celanese Co. of America
Summit, N. J. (USA)

Dear Doctor Armstrong:

Thank you very much for kindly sending me the collection of papers selected from the technical publications of Celanese. I will read them with interest.

Kind regards.

G. Natta

November 10, 1965

America

Mr. Paul W. Bayliss
Technical Employment Representative
Bell Telephone Laboratories, Inc.
Mountain Avenue
Murray Hill, New Jersey, U.S.A.

our ref. N.595/r1

Dear Doctor Bayliss,

with regard to your letter of Oct. 29 concerning Dr. Joseph DI PIETRO, I wish to inform you that :

I personally know Dr. Di Pietro because he worked in this Institute for about one year participating in works of basic research. In particular he studied the stereospecific polymerization of isocyanates and cooperated to the study of the disputation reactions of organometallic compounds of aluminum. After these research works, Dr. Di Pietro could publish two articles.

The experimental part of the first work was developed exclusively by Dr. DiPietro, who completed it quite satisfactorily.

With regard to his personal characteristics and human qualities, I consider him very polite and a good mixer, and think that he can deal with superiors and subordinates in an excellent manner.

Kindest regards,

Giulio Natta

G. Natta, J. Di Pietro, M. Cambini - Crystalline Polymers of Phenyl- and n-Butylisocianates - Makrom. Chemie 56, 200 (1962)

A. Zambelli, J. Di Pietro, G. Gatti - Reazione tra $AlCl_2R$ e sostanze complessanti nei sistemi catalitici ternari per la polimerizzazione stereospecifica delle alfa-olefine, J. Chimica e Industria (Milan) 44, 529 (1962)

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL, NEW JERSEY 07971
TELEPHONE
AREA CODE 201
582-3000

AIR MAIL

October 29, 1965

595

DR. GIULIO NATTA
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milan
ITALY

Dear Dr. Natta:

We have recently been contacted by Dr. Joseph DiPietro regarding the possibilities for his employment at Bell Telephone Laboratories. Dr. DiPietro has indicated that he worked on a NATO Postdoctoral Fellowship under your supervision from September 1961 until August 1962, and he has given your name as a reference.

We would appreciate your help in evaluating Dr. DiPietro's background and abilities so that we might be able to advise him of the opportunities for him in this organization. Specifically, we would like to have your evaluation of the quality of his work, his motivation, dependability and personal characteristics, especially his ability in dealing with his co-workers.

Any assistance you can give us in regard to Dr. DiPietro's possible employment would be greatly appreciated. Your reply will, of course, be used with discretion. I enclose a self-addressed envelope for your convenience.

Very truly yours,

Paul W. Bayliss

PAUL W. BAYLISS
Technical Employment Representative

MH-8151-PWB-PF

Enc.

Dr. Bovey

January 19, 1965

Dr. F. A. Bovey
Bell Telephone Laboratories, Inc.
Murray Hill, New Jersey (USA)

our ref.:49/ce

Dear Doctor Bovey:

I am very much interested on your work which will be presented at the coming symposium on "High Resolution NMR Spectroscopy of Polymers".

Would you be kind enough to send me either a copy or one reprint of your works as soon as possible?

Thanking you in advance, I send you my best regards.

G. Natta

Ferr.

January 19, 1965

Dr. F.A. Bovey
Bell Telephone Laboratories, Inc.
Murray Hill, New Jersey (USA)

our ref.49/eg

Dear Doctor Bovey:

I am very much interested on your work which will be presented at the coming symposium on "High Resolution NMR Spectroscopy of Polymers".

Would you be kind enough to send me either a copy or the reprint of your work, as soon as possible?

Thanking you in advance, I send you my best regards.

G. Natta

Ser -

June 4, 1965

Dr. F.A. Bovey
BELL TELEPHONE LABORATORIES
Murray Hill, New Jersey 07971 (USA)

283/

Dear Doctor Bovey:

We shall be glad to have you in our Institute on September 10th, as you suggest in your letter of May 13, 1965.

While I regret I shall probably be still out of town on that time, Dr. Zerbi, Dr. Lombardi and other people of the Department will be glad to discuss with you matters of mutual interest.

We should also appreciate you to give a Seminar on your most recent research-works. As to the topics of your seminar I suggest a general one which may be followed both by specialized people as well as by organic and polymer chemists.

With best regards.

G. Natta

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL, NEW JERSEY 07971
TELEPHONE
AREA CODE 201
582-3000

AIR MAIL

May 7, 1965

PROFESSOR GIULIO NATTA
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan,
ITALY

Dear Professor Natta:

After a very interesting and enjoyable tour of European laboratories, I have just returned to Murray Hill. I would like particularly to thank you for your kindness and that of your staff, in showing me your laboratories. I hope that we will have an opportunity to show you or your colleagues our work at Murray Hill, if you should come to the United States.

Sincerely yours,

N B Hannay

N. B. HANNAY
Chemical Director

MH-112-NBH-cl

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL, NEW JERSEY 07971
TELEPHONE
AREA CODE 201
582-3000

AIR MAIL

May 13, 1965

PROF. GUILIO NATTA
Instituto di Chimica Industriale
del Politechico
Piazza Leonardo da Vinci 32
Milan
ITALY

283

Dear Prof. Natta:

Following up our correspondence earlier this year, I would like to suggest the date of Friday, September 10 for my visit to your institute. I would very much appreciate learning if this will be satisfactory for you.

With kindest regards,

Very truly yours,

Frank Bovey

F. A. BOVEY

FAB:ph

~~aspettiamo notizie da Lei~~

Gentile Lei

Il Natta probabilmente non ci sarà

(invitato da Lei)

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF CHEMISTRY BERKELEY, CALIFORNIA 94720

April 19, 1965

Copia a Farina Perri

AIR MAIL

Professor and Mrs. Giulio Natta
Via Maria Pagano 34
Milan, ITALY

Dear Professor and Mrs. Natta:

I have just returned to Berkeley and seen your most interesting article in Angewandte Chemie in which you describe the use of cyclic compounds as models for the stereochemistry of the linear polymers. I find this an extremely interesting approach and hope to make use of it myself.

I want to thank you once again for the pleasure of the luncheon which I enjoyed so much and the opportunity to meet again with Pino as well as Farina and Perri. It was a most pleasant interlude, and I hope that we may repeat it again, perhaps in November.

Greetings and very truly yours,

Melvin Calvin

Melvin Calvin
Professor of Chemistry

MC:mt

CALIFORNIA CHEMICAL COMPANY

200 BUSH STREET SAN FRANCISCO CALIFORNIA 94120

R. I. STIRTON
MANAGER, COMMERCIAL DEVELOPMENT
K. J. VAN ARNUM
MANAGER, MARKET RESEARCH

March 2, 1965

159

Professor Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Plazza Leonardo da Vinci, 32
Milano, Italy

copie a Dall'Asta
8/3/65.
impressione

Dear Professor Natta:

Methylcyclopentane and Cyclopentene

Your letter of January 29, 1965, to Dr. W. H. Shiffler has been referred to me because of Dr. Shiffler's recent retirement from California Chemical Company.

Our own interest in methylcyclopentane or cyclopentene has not increased through the years since your earlier correspondence. For this reason we are unable to offer you methylcyclopentane either in the quantities you mention or at a low price. Nor are we in a position to supply you with cyclopentene.

Phillips Petroleum Company appears to be the only possible supplier of commercial quantities of these two chemicals. If you have not already contacted their Special Products Division at Bartlesville, Oklahoma, you might wish to do so. All the other companies listed as sources are specialty chemical resellers who possibly purchase their stock from Phillips.

I hope the above information is of some help to you and that I may have the opportunity of visiting you at the institute some day.

Sincerely yours,

R I Stirton

March 15, 1965

Dr. R.I. Stirton
California Chemical Company
200 Bush Street
San Francisco - California

f. 159/eg

Dear Doctor Stirton :

Thank you very much indeed for the very helpful information you give me, in your letter of March 2, on methylcyclopentene and cyclopentene.

I do appreciate your kindness, and send you best personal regards.

G. Natta

Jan.29, 1965

Dr.W.H.Shiffler
California Research Corporation
200 Bush Street,
San Francisco 4, California (USA)

our ref.69/lv

Dear Doctor Shiffler:

As you probably remember, we contacted in the past about the possibility to have methylcyclopentane at low price.

Now, I would mostly appreciate your letting me know the present prospects concerning a supply of methylcyclopentane for the amount of some thousands tons/year and possible further needs of the order of tens thousands tons per year.

Please, inform me also about the possible industrial supply of cyclopentene.

Thanking you very much in advance, I send you kindest personal regards.

Giulio Natta

CALIFORNIA RESEARCH CORPORATION

A SUBSIDIARY OF
STANDARD OIL COMPANY OF CALIFORNIA

200 BUSH STREET, SAN FRANCISCO 4, CALIFORNIA

February 17, 1953

FILE 004.1102

W. H. SHIFFLER
VICE PRESIDENT

Natta

material. [illegible] and you may wish to [illegible]
phenol from cumene and you may wish to [illegible]
using other hydrocarbons. We note also that meth[illegible]
be oxidized by the cumene method although there are many ways
making derivatives. Our interest in the cumene type oxidation arises
from the fact that we are building a large plant to produce phenol by
this method.

Although the above two fields of work appear of particular
interest to us, we would be glad to consider suggestions if you feel
some other line of work would be of more interest to you.

With regard to timing, we would be glad to have the work
started as soon as you have qualified personnel available. We recog-
nize too that some equipment may be needed.

If this proposal is attractive to you, please advise what
type of agreement is customary and the project you would prefer.

Very truly yours,

CALIFORNIA RESEARCH CORPORATION

A SUBSIDIARY OF
STANDARD OIL COMPANY OF CALIFORNIA

200 BUSH STREET, SAN FRANCISCO 4, CALIFORNIA

W. H. SHIFFLER
VICE PRESIDENT

February 17, 1953

FILE 004.1102

Professor Doctor Giulio Natta
Politecnico Instituto di Chimica
Industriale
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

You may recall that Dr. Vittorio de Nora arranged with you for me to visit the Industrial Research Institute and discuss its operation with your assistant, Dr. Piero Pino, during your illness on December 3, 1952.

Dr. Pino very kindly gave me six papers reporting publications of the Institute. We have translated these and are interested in considering the support of a project assuming that work in a field of chemistry suitable to you and to us can be chosen. Briefly, we understand that graduate doctors are assigned to the work, that the work is confidential, that patent applications are assigned to the sponsor and that the cost of the work is billed to include the chemists' salaries plus 70% for overhead expenses plus the cost of supplies and equipment. With this in mind we would plan to approve expenditures up to $5,000 (or equivalent in lire) for the first year and would hope to renew the arrangement for possibly a second and third year although we can promise approval at this time for only the first year's work.

Two subjects that may be of interest to you are as follows:

1. The preparation of derivatives of methyl cyclopentane.

2. Oxidation of hydrocarbons by the general technique employed in oxidizing cumene.

It appears to us that derivatives of methyl cyclopentane have been neglected and we have a considerable quantity of this raw material. However, we understand you have had experience in making phenol from cumene and you may wish to consider similar technique using other hydrocarbons. We note also that methyl cyclopentane can be oxidized by the cumene method although there are many ways of making derivatives. Our interest in the cumene type oxidation arises from the fact that we are building a large plant to produce phenol by this method.

Although the above two fields of work appear of particular interest to us, we would be glad to consider suggestions if you feel some other line of work would be of more interest to you.

With regard to timing, we would be glad to have the work started as soon as you have qualified personnel available. We recognize too that some equipment may be needed.

If this proposal is attractive to you, please advise what type of agreement is customary and the project you would prefer.

Very truly yours,

W. H. Shiffler

Ann

212

March 31, 1965

Prof. P. Doty
University of Harward
Department of Chemistry
12 Oxford Street
Cambridge, 38 (Mass.)

Dear Professor Doty:

Next June, one of my assistants, Dr. Mario FARINA, you already met, will come to the States, to participate in a Conference on Stereochemistry and in the Gordon Conference on Polymers. I think it very useful for him to visit a certain number of research laboratories in Universities or industries, to increase his knowledge and experience.

Therefore, I ask you whether he can visit the laboratories of the Harward University and of other Universities on the Atlantic Coast.

His interests essentially concern: organic and macromolecular stereochemistry, polymerization processes and inclusion compounds.

You will probably know that at my Institute a new host molecule has been obtained, allowing the inclusion of macromolecular compounds; it shows very interesting properties.

I would be particularly grateful to you, if you may arrange that he delivers a few lectures, to meet his travel and living expenses. He might speak on: "Some Stereochemical Problems in Macromolecular Chemistry", dealing with some aspects of the polymerization mechanisms and of the structure of polymers, with particular reference to the possibility to obtain asymmetric structures.
- "A New Class of Inclusion Compounds", dealing with the preparation and properties of these compounds with low- and high-molecular-weight substances.

The U.S.A. schedule of Dr. Farina is the following: June 10-19: University of Notre Dame (Indiana); July 4-9 in New London (N.H.). Thus he could come to Harward University from June 20 and July 3.

Kindest personal regards.

G. Natta

Ann -

May 6, 1965

Prof. Paul Doty,
Dept. of Chemistry,
Harvard University,
12 Oxford Street,
Cambridge 38, Massachusetts, U.S.A.

our ref. 266/lv

Dear Professor Doty:

I wish to thank you very much, also on behalf of dr. Farina, for trying to arrange lectures and visits for him. Further details on this matter will be very gratefully received.

Kindest personal regards.

Giulio Natta

HARVARD UNIVERSITY

DEPARTMENT OF CHEMISTRY

April 28, 1965

12 Oxford Street
Cambridge 38, Massachusetts, U.S.A.

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

This is just to let you know that I am trying to find some lectures and visits in this area for Dr. Farina. It is taking me longer than it should because I was absent when your letter arrived and I shall be away during the whole time that he wishes to be here. However, planning is going forward and Professor Bartlett, who would be very interested, will be returning from Japan shortly. As soon as I have all the details I will get in touch with you.

Very sincerely yours,

Paul Doty

Paul Doty

PD/ec

June 4, 1965

Ann

Prof.P.Doty,
University of Harvard

Dear Professor Doty:

I avail myself of Dr.Farina to send you my kindest regards and best thanks for whatever you have done on behalf of dr.Farina.

I have been told that Prof.Liquori invited you to the Ravello Discussion next September. On that occasion, I hope to meet you in Italy.

Kind regards,

Giulio Natta

HARVARD UNIVERSITY

DEPARTMENT OF CHEMISTRY

July 14, 1965

12 Oxford Street
Cambridge 38, Massachusetts, U.S.A.

VIA AIR MAIL

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

It was good of you to write me a note of thanks about Dr. Farina. It was quite unjustified, you know. I am extremely sorry that my own absences plus the vacation plans of the people that would interest him most made for a poor visit here. Despite this I hope you will not hesitate to call upon me again, in which case I shall simply try to do better.

With best regards.

Sincerely yours,

Paul Doty

Paul Doty

PD/jw

Ann

3.9.1965

Dr. J. DI PIETRO
Celanese Corporation of America
SUMMIT - N.J. - U.S.A.

Caro Di Pietro,

ho ricevuto oggi, di ritorno dal Simposio di Chimica Macromolecolare di Praga, i 4 volumi dei Proceedings del 4^ Congresso Internazionale di Reologia, che Lei gentilmente ha voluto inviarmi e che ho molto gradito.

Ricordo il periodo da Lei trascorso a Milano e sarò molto lieto di vederLa nel caso che Lei abbia occasione di venire in Italia. Molti cordiali saluti a Lei e famiglia ed auguri per il Suo lavoro.

Giulio Natta

P.S. - Le invio a parte gli estratti di alcune nostre pubblicazioni recenti.

Oct.7, 1965

dr.Louis Finkelstein,
3080 Broadway
New York, N.Y. 10027 (U.S.A.)

Dear doctor Finkelstein:

Thank you very much for your kind letter of Sept.14, by which you invite me to participate, as a member of the Committee of Sponsors, in your Anniversary Year celebration.

I wish to inform you that, due to many reasons, I think I cannot be one of said Committee, to which, I suppose, only your co-religionists may belong.

Accept my kindest regards.

Giulio Natta

THE JEWISH THEOLOGICAL SEMINARY OF AMERICA
NORTHEAST CORNER, BROADWAY AND 122ND STREET
NEW YORK 27, N. Y.

OFFICE OF THE CHANCELLOR

CABLE ADDRESS: "SEMINARY" NEW YORK

September 14, 1965

Dear Doctor Natta:

The academic year 1965-1966 marks the eightieth anniversary of the founding of The Jewish Theological Seminary of America.

Our celebration of this anniversary will include a series of convocations in major American cities on the theme of "A Great Society." We will seek to probe the philosophical and theological bases for the standards of American life and behavior, within our own borders and throughout the world. Leaders of the academic community, as well as those in government, industry and labor, will participate in convocations and seminar discussions.

In May, 1966, the culmination of our celebration will be a series of meetings in New York at which scholars and lay leaders from various parts of the world will confer.

The Board of Directors and Faculty of this Seminary are inviting a group of distinguished international leaders to join a Committee of Sponsors for our Anniversary Year. Those invited to serve are individuals who represent the best traditions of the academic and lay communities in this country and overseas. It gives me great pleasure, on their behalf and personally, to invite you to become a member of this honorary group.

We shall be honored and delighted if you can join us in commemorating the 80th Anniversary of The Jewish Theological Seminary of America through your association as a member of the Committee of Sponsors.

With all good wishes,

Cordially, as ever,

Louis Finkelstein

Doctor Giulio Natta
Via M. Pagano 54
Milan, Italy

LF/eg

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

October 7, 1965

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter and for providing me with copies of your papers on conformational studies of polymer molecules.

I take the liberty of sending you copies of our recent papers pertaining to this subject. I am also enclosing two manuscripts recently submitted to the Journal of the American Chemical Society, together with a brief note soon to appear in "Polymer Letters," which I think may be of particular interest to you and your collaborators. Needless to say we shall welcome your comments and criticisms.

With very best regards, I am

Sincerely,

P. J. Flory
Jackson-Wood Professor

PJF:nw
encs.

B.F.Goodrich Chemical Company

a division of The B.F.Goodrich Company

Telephone no.: (070) 86 62 68 Telex no.: 31358 Cable address: Tubedodge-The Hague

European Technical Service:

2, Albertus de Oudelaan
Voorburg, Netherlands

June 2, 1965

Porri
Zambelli

Professor Giulio Natta,
Instituto di Chimica Industriale
del Politechnico,
Piazza Leonardo da Vinci, 32,
M I L A N O.
Italy

Dear Professor Natta:

I have received from Dr. Mayer-Kaupp of Springer-Verlag a copy of your comments on my proposed publication "Ionic Factors in Steric Control". I wish to thank you very much for your effort in studying this paper and in communicating your comments.

As you see by the enclosed letter to Dr. Mayer-Kaupp, I have incorporated several of your points in corrections to my paper.

I believe that I should cover the points which you raise in detail.

Your first suggestion is certainly correct. Somewhere in the typing of my paper, $TiCl_3$ had become converted to $TiCl_4$ and I failed to catch this.

In so many polymerizations it is not known what intermediate component has been produced, which participates in the formation of the catalyst. For this reason I have followed your suggestion to delete the reaction of triethyl aluminum to produce diethyl aluminum chloride.

Your third comment strikes at an area for which considerable more research is required. It is unfortunate that these studies have not yet been reported and I would hope to hear of some results when they become available.

I agree with your fourth comment that one should not think of vanadium acetyl acetonate anisol and dialkyl aluminum chloride as a strong anionic initiator for syndiotactic polypropylene. Since the placing of this system on figure 8 was relatively arbitrarily, I am asking for figure 8 to be redrawn to place this catalyst close to the mid-point in the ionicity table.

June 2, 1965

Professor Giulio Natta,
M I L A N O

extension of the ultimate steric control mechanism to the sorbic acid ester and to the deutero acrylate catalysts.

I wish to again thank you very much for your comments and I have taken the opportunity of including acknowledgment to these in my paper. I am sure that it will be a better paperbecause of these suggestions. Thank you verymmuch.

Sincerely,

Dr. Max Roha,
Director Scientific Liaison

MR/rw
encl.

Professor Giulio Natta,
M I L A N O

The references mentioned in your fifth comment follow in the text of the paper.

I have reworded the sentences mentioned in your sixth comment, so that it is now more clear. The question as to why aluminum bromide does not activate the catalyst is one which I do not understand at present. It may be that the bromide atom being less electron negative does not bring about the proper interaction between the gegen ion and the incoming monomer or propagating polymer.

Your comments seven and 8 again point out an area for which there is a great need for information in order to facilitate our understanding of steric control. However, the absence of this information does not invalidate the main conclusions of this paper, since these are based predominantly on proven systems such as the vinylethers, methylmethacrylate and styrene.

It is unfortunate, that we do not have a scale which places the various metal halides in an order of their affinity for the electrons in the polymerizing vinyl monomers and for the electrons at the terminal end of the polymer chain.

Such a scale of pi-electrophilicity or hybrid pi sigma electrophilicity has not been proposed as far as I know. The best information which we can use is the tendency for the less substituted metal halides to show greater affinity for electrons.

The first part of your tenth comment is indeed right. Not all cis 1,4 polymerizations of diolefins occur through a cationic mechanism. Indeed the butyl lithium catalyst for cis-polyisoprene is anionic. It is certainly true that even all Ziegler type catalysts do not operate by a cationic mechanism. The triethyl aluminum titanate catalyst would not appear to be cationic. However, the evidence appears to be clear that many Ziegler systems polymerize dienes by cationic mechanism. I have therefore altered the wording of my paper in order to make this clear.

I am glad that you again call my attention to your paper for the polymerization of sorbic esters. This fits very well with the deuterated monomer studies of Schuerch and of Yoshino and their co-workers. I have therefore treated your results along wit these deuterium studies.

I am also enclosing some unpublished drawings which show the

B.F.Goodrich Chemical Company

a division of The B.F.Goodrich Company

Telephone no.: (070) 86 62 68 Telex no.: 31358 Cable address: Tubedodge-The Hague

European Technical Service:

2, Albertus de Oudelaan
Voorburg, Netherlands

June 2, 1965

Dr. H. Mayer-Kaupp,
Springer-Verlag,
69, Heidelberg-1
Postfach 3627,
Germany

Dear Dr. Mayer-Kaupp:

Thank you very much for your letter of May 25 and your enclosure of letter from Professor Natta concerning my paper "Ionic Factors in Steric Control".

I have studied Professor Natta's comments and have made some corrections in the text of the paper to eliminate some errors and to clarify areas of ambiguity. These corrections are described on the enclosed sheets.

In view of Professor Natta's comments, I believe that it would be desirable to redraw figure 8. I am enclosing the corrections indicated for this figure.

I am also sending copies of these proposed corrections to Professors Natta and Overberger for their information.

Thank you very much.

Sincerely yours,

Dr. Max Rohn,
Director Scientific Liaison

MR/rw
encl.

B.F.Goodrich

Corrections to Rehn "Ionic Factors in Steric Control"

galley proof page 9, top, should read=

"Braun and co-workers and Worsfold and Bywater (35) have studied the production of isotactic polystyrene by butyl lithium catalysis. Worsfold and Bywater found that water plays an important role in the isotactic polymerization,and concluded that the production of lithium hydroxide in situ xxxx"

---

galley proof page 9, line 29 should read=

"Natta, Bonsano, Scanesi and Mochi (36) have found xxxxx"

---

galley proof page 9, line 35, after

"Electron releasing groups facilitated this polymerization"
insert new paragraph
"The recent study by Overberger and Jarevitsky (37) shows clearly the cationic nature of the propagation step in the polymerization of alpha-d-styrene by Ziegler catalysis".

---

galley proof page 16, line 8

"or titanium tetrachloride and alkyl aluminum dichloride" should read: "or titanium trichloride and alkyl aluminum dichloride."

---

galley proof page 16, line 30

delete: "Triethyl aluminum was similar to diethylaluminum chloride to which it became converted during the catalyst formation."

---

galley proof page 19, line 10

insert new paragraph: "Overberger and Jarevitsky (37) proposed the formation of cationic propagating species through disproportionation of the titanium aluminum complex into $R_2AlCl_2^-$ and a positive titanium species. Propagation of this ion pair, before temporary chain termination by alkyl migration, produces the same possibility for steric control by the end of the polymer chain."

---

galley proof page 19, line 15

delete: "Diethylaluminum chloride and vanadium tetrachloride xxxx preferred syndiotactic structure."

insert: "The formation of syndiotactic polypropylene is shown in figure 8 close to the region of inverted reaction of the propylene molecule."

---

galley proof page 20, line 2

delete: "It is known that xxxx"

---

galley proof page 20, line 16

"It required the addition xxxx to produce an active catalyst."
should read: "It required the predecomposition of titanium trichloride at 120°C or the addition of titanium trichloride to produce an active catalyst."

---

galley proof page 25, last paragraph including on to top of page 26

"However, the studies xxxx back side attack." should be replaced by:-
"The increased ionic freedom between the propagating polymer ion and its gegen ion occurs concurrently with increased space separation between the two ion species. The studies of Schwarch and co-workers and of Yoshino and co-workers (28) with deuterated acrylates and by Natta and co-workers (29) with acrylic esters show that this increased separation allows trans addition to mono olefins and 1,4 trans addition to conjugated dienes before complete loss of isotactic steric control at the end of the chain. The increased freedom between the propagating ion and the less closely associated gegen ion appears to result in a distortion of the cyclic transition state which permits backside attack at the beta position of the incoming acrylate monomer and 1,4 attack on the incoming acrylate monomer."

---

galley proof page 27, line 27

the sentence "There is considerable evidence which indicates these catalysts propagate by a cationic step."
should read: "There is considerable evidence which indicates that

many of these catalysts propagate by a cationic step."

---

galley proof page 27, next to last line to end of the paragraph

"Kennedy and Langer (1), cited evidence xxxx operate by a cationic mechanism."
should read: "Radioactive tracer quench experiments have been carried out by Childers and Cooper, Eaves and Vaughan and by Natta, Ferri Carbonaro and Greco (117). Childers' studies, using the quench after 60 seconds polymerization time, showed that the polymer species had cationic nature. The studies by Natta et al using longer polymerization time demonstrated the anionic nature of the polymer species present. Interconversion of the propagating catalyst alkyl to inert anionic polymer species could account for these differences. This interconversion could occur through the equilibrium, as shown in equation 10, or the termination reaction proposed by Overberger and Jarovitsky."

---

galley proof page 28, at end of paper

insert: "The author wishes to thank his associates at the B.F.Goodrich Research Center for many stimulating discussions which provided the basis for this survey. He also wishes to thank Professor Natta for several helpful suggestions on the paper in the proof stage.

The following references should replace those given in the galley:

25: Braun, D., W. Betz u. W. Kern: Makromol.Chem.:48, 39 (1960)
Wenzfold, D.J., u. S. Byrator: Makromol.Chem.:55, 245 (1962)

26: Natta, G., F. Ranzano, D. Sianesi e A. Mochi: Chem. Ind. (Milan) 41, 888 (1959)

27: Overberger, C.G., and P.A. Jarevitsky, J. Polymer Sci, :A3, 1483 (1965)

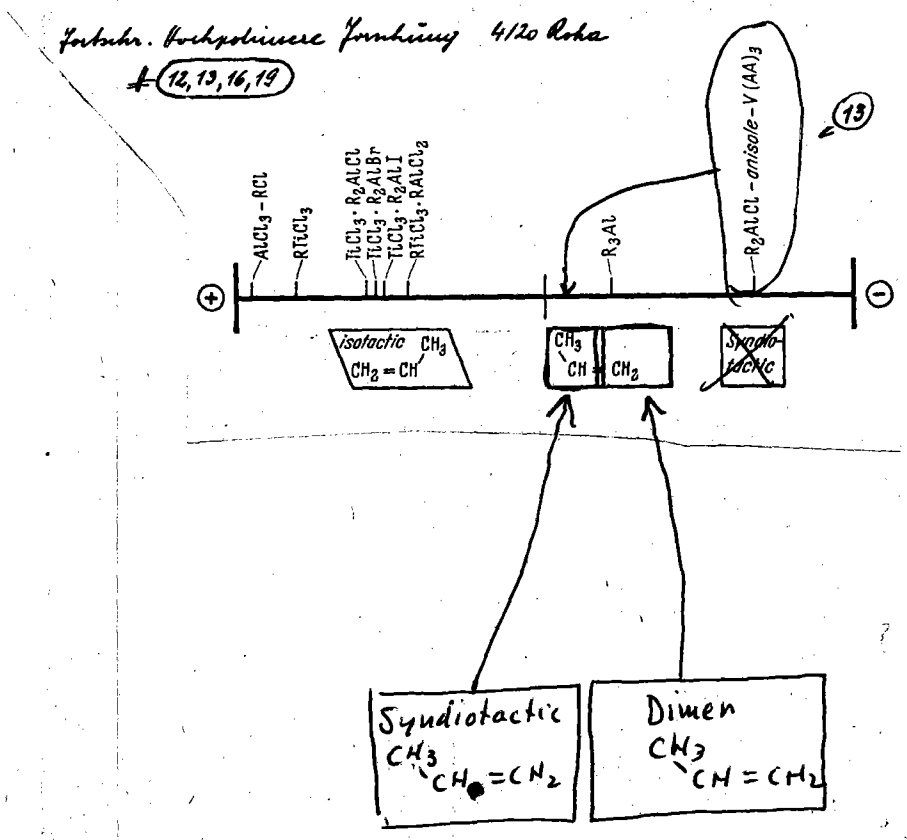
62: Natta, G., I. Pasquon, A. Zambelli and G. Gatti: J.Polymer Sci.:51, 387 (1961); A. Zambelli, J. DiPietro and G. Gatti, J. Polymer Sci, A1, 402 (1963); G. Natta, A. Zambelli, I. Pasquon,and G. Gatti und P. Bolzon, :Makromol. Chem. 70, 206, (1964)

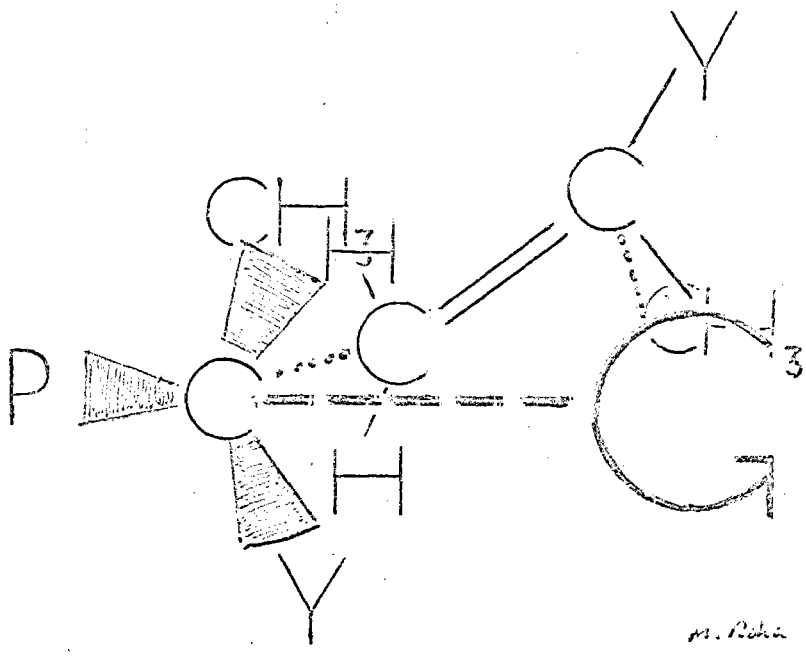
117: Childers, C.W., J. Am. Chem. Soc, 85, 230 (1963); W. Cooper, D.E. Eaves und G. Vaughan, :Makromol Chem. 57, 239 (1963) G. Natta, L. Porri, A. Carbonaro und A. Greco, :Makromol. Chem. 71, 207 (1964)

98: Schmerch, G., W. Powells, A. Yamada, F.A. Bovey, F.P.Hoop and R.W. Anderson: J. Am. Chem.Soc. 86, 4481 (1964) ; Yoshimo, T., J. Kumiyama and M. Shimomiya: J. Am.Chem.Soc. 86, 4482 (1964)

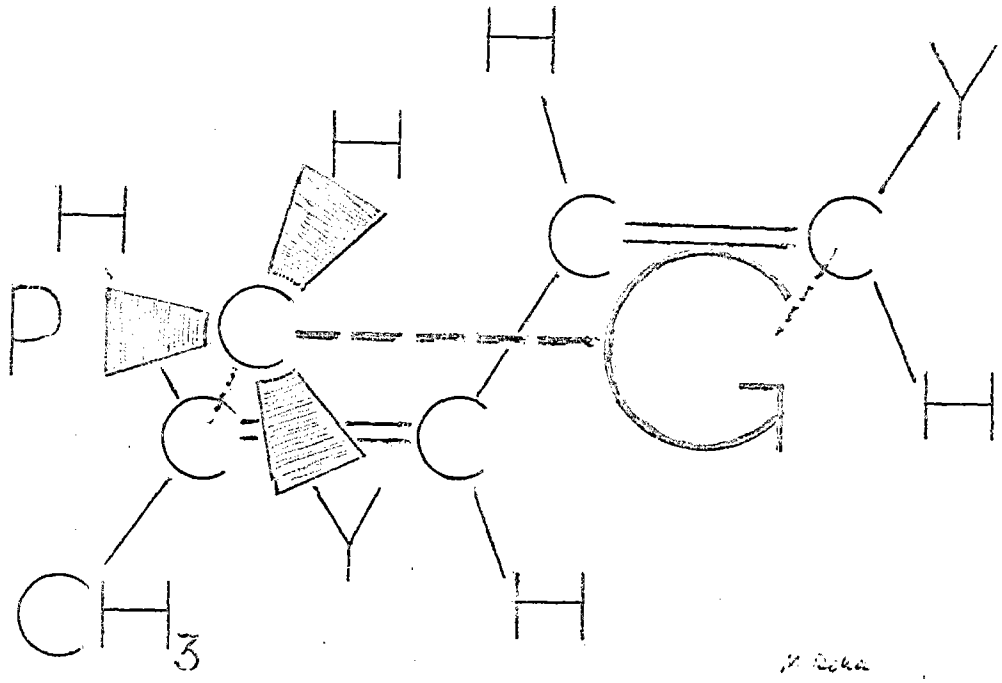
90: Natta, G., M. Farina und M. Donati, Makromol. Chem.:43, 251 (1961)

Fig 8


Fortschr. Hochpolymere Forschung 4/20 Roha
12,13,16,19
13
AlCl3 – RCl
RTiCl3
TiCl3 · R2AlCl
TiCl3 · R2AlBr
TiCl3 · R2AlI
RTiCl3 · RAlCl2
R3Al
R2AlCl – anisole – V(AA)3
+
–
isotactic
CH2 = CH
CH3
CH3
CH
CH2
Syndiotactic
Syndiotactic
CH3
CH = CH2
Dimen
CH3
CH = CH2



Cyclic intermediate in the trans addition to produce isotactic polymethacrylate



Cyclic intermediate in polymerization of sorbic esters to trans-diisotactic polymer

Comments on the paper

"The Mechanism of Stereospecific Anionic Polymerization"

by C.Schuerch et al.

1) The title of the paper is too general and categorical and does not correspond to what contained in the text. The article, in fact, refers only to one example of anionic polymerization, i.e. of 1,2 d_2 isopropyl acrylate.
It must be borne in mind that Yoshino et al. have studied the polymerization of a monomer of the same type, in the presence of other anionic catalysts, and obtained opposite results of those described (see J.Am.Chem.Soc. 86, 4482 and 87, 387).

2) The paper is not over a communication to the Editor, and is practically identical with the article published in J.Am.Chem.Soc. 86, 4481; no new experimental findings and interpretative conclusions have been added.

3) Taking into account the aim of Advances in Chemical Series, the article lacks in a thorough bibliographic review concerning other mechanisms proposed since long by other researchers.

4) The paper certainly is of great interest since it describes an example of an unusual polymerization type. However, it does not seem to us, for what stated above, especially in item 1), that it may be published as a prototype of anionic polymerization mechanism.

Giulio Natta

invio 2 copie

ACS APPLIED PUBLICATIONS

ANALYTICAL CHEMISTRY
CHEMICAL AND ENGINEERING NEWS
CHEMISTRY
INDUSTRIAL AND ENGINEERING CHEMISTRY
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY
JOURNAL OF CHEMICAL AND ENGINEERING DATA

ADVANCES IN CHEMISTRY SERIES

PUBLISHED BY THE AMERICAN CHEMICAL SOCIETY

1155 Sixteenth St., N.W., Washington, D. C. 20036 • 202 REpublic 7-3337

Prendere Farne domanda

April 20, 1965

Re: "The Mechanism of Stereospecific Anionic Polymerization" by C. Schuerch et al.

Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

27/4/65

Dear Dr. Natta:

The attached paper was presented on the Symposium on New Aspects of Elastomer Stereospecific Polymerization at the 148th ACS Meeting in Chicago. We should like very much to have you referee this paper for potential publication in a number of ADVANCES IN CHEMISTRY SERIES.

Papers for publication in volumes in ADVANCES IN CHEMISTRY SERIES are judged by ACS editorial standards except that for the purpose of these volumes, a little more review may be permitted than in the usual ACS research journals. Space is not the critical problem that it is in ACS journals, and review is often useful to those approaching a field for a first time as long as it is not a verbatim repetition of a review that appears elsewhere. Each review should bring a topic up to date and include evaluation of recent work.

We would appreciate having your comments on the suitability of the attached paper for publication as a part of the literature of chemistry and chemical technology. Will the paper be a useful contribution to this literature? Is the paper authoritative and accurate, and is it sufficiently complete to be understandable and useful?

If you have any comments for improvement of this paper, feel free to express yourself as candidly as you wish because your comments will be forwarded to the author without identifying you. May we have your reply in two weeks? We would appreciate your returning the manuscript with your reply.

Sincerely yours,

Robert F. Gould

Robert F. Gould
Editor

Il Natta pensa che dovrebbero essere esaminati i composti

RFG/dh
attch

W. R. GRACE & CO.

RESEARCH DIVISION

Washington Research Center, Clarksville, Maryland 21029

May 12, 1965

284

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci 32
Milan, Italy

Dear Professor Natta:

Professor Overberger has told us that Dr. Farina of your laboratories will be visiting here in the States during June and July. We would be pleased to have Dr. Farina spend a day with us at the Central Research Laboratories of the W. R. Grace Co. in Clarksville, Maryland. A lecture on "A New Class of Inclusion Compounds" would be of particular interest to us.

Of course, an honorarium of $150.00 is extended to Dr. Farina.

Our laboratories are situated between Baltimore, Maryland and Washington, D.C. Dr. Farina could include a trip to Washington while visiting us. We would suggest any day during the last weeks of July.

Please let us know of the day Dr. Farina will be here.

Sincerely,

Victor S Frank

V. S. Frank, Director
Polymer Research Department

VSF:fh

McGRAW-HILL BOOK COMPANY
330 WEST 42ND STREET, NEW YORK, N.Y. 10036
A DIVISION OF McGRAW-HILL, INC.

ENCYCLOPEDIA & LIBRARY SERVICES DIVISION

July 23, 1965

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano

Dear Professor Natta:

Thank you very much for your article and photograph, which arrived here today. The article is excellent, and I am delighted to have it. I will try to get the photograph back to you in a few weeks.

I have put in a request for your honorarium check, which you should receive in a week or two. In the fall I hope to be able to send you proof of your article for a final review before its publication.

I greatly appreciate your participation in this project. Your article is indeed a valuable contribution to our book.

Sincerely yours,

Jay E. Greene

Jay E. Greene
Editor, Biography Project

McGRAW-HILL BOOK COMPANY
330 WEST 42ND STREET, NEW YORK, N.Y. 10036
A DIVISION OF McGRAW-HILL, INC.
ENCYCLOPEDIA & LIBRARY SERVICES DIVISION

initiate 11/XI/1965 [illegible]
Cancel other letters

Dear Contributor:

Attached is uncorrected galley proof of the article you wrote some months ago for the biographical supplement to the McGRAW-HILL ENCYCLOPEDIA OF SCIENCE AND TECHNOLOGY. Will you please review your article now and return it to me promptly in the enclosed envelope?

You may find that we have made editorial changes in your article. Any such changes were intended to be stylistic only; their object was to achieve greater economy, clarity, or vigor of statement. If in making these changes we introduced errors into your article, please correct them now.

If this galley proof is not returned within two weeks, we will assume that the article is satisfactory to you as it stands.

JAY E. GREENE
Editor, Biography Project

JEG:RAR
enclosures

controllers and tests for reference [illegible]
[illegible]

Dec.20, 1965

Prof.P.J.Flory,
Dept. of Chemistry,
Stanford University,
Stanford, California (U.S.A.)

ourref.660/lmv

Dear Professor Flory,

I have examined, with some co-workers of mine, the interesting manuscripts you kindly sent to me.

The interpretation you give of the phenomenon of the substantial constancy of the mean square distance, when varying temperature, seems very interesting.

Measurements done by dr.Moraglio of this Institute on non-degraded polypentene samples, recently obtained by very highly stereospecific synthesis and having suitable molecular weights for processability in solution, indicate, by measurements on narrow fractions in θ solvents at two temperatures, a slight decrease in size with temperature. An analogous decrease in the size with temperature by measurements in solution was obtained in atactic polybutane.

I wish to inform you that in our Institute dr.Allegra has developed a mathematical algorithm able to supply a mechanical-statistical treatment of macromolecules of copolymers (a first paper on this topic has already been published in Biopolymers 2, 65 (1964), and a complete development of the theory (see enclosed reprint) has been given at the last IUPAC Symposium on Macromolecular Chemistry, Prague 1965). When applied to the isotactic polymers, such a theory yields analogous results (~~fig.9~~) (as those shown in fig.9 of your paper "Random coil ...")

With regard to the steric impurities of the samples sent to you, I wish to remind that I sent you raw samples, though obtained by highly stereospecific catalysts.
Propylene polymers obtained by the same catalyst and fractionated with solvents have given a heptane residue that, by NMR analysis, appeared to contain undetectable amounts of inversions. It is therefore possible that also in the case of polypentane, a sterically pure isotactic polymer can be obtained by fractionation.

./.

Dec.20, 1965

With regard to what you suggest on page 42 of the paper "Random Coil Configurations of...", we do not agree with the hypothesis put forward that the right and left helices can vicariate at random in the same site of the lattice. This hypothesis is in apparent contrast with our x-ray data and should be modified.

Accept my best wishes for Xmas and the New Year.

Sincerely,

Giulio Natta

Nov.23, 1965

Prof.P.J.Flory,
Dept.of Chemistry,
Stanford University
Stanford, Calif. U.S.A

our ref.577/lv

Dear Professor Flory:

Thank you for your letter of Oct.10 and for the reprints and manuscripts you kindly sent to me, which arrived here with much delay. I purpose to read them very carefully both because we are very much interested in this topic and considering your great competence in this field.

Kindest personal regards,

G.Natta

inviato lavori a Canadian 23/11

22.9.65

Prof. Paul J. Flory
Dept. of Chemistry
Stanford University
STANFORD - California (U.S.A.)

Dear Prof. Flory,

Considering your deep and appreciated interest in the field of the conformational studies of polymers in solution, I send you, under separate cover, reprints of some of our papers on this field. I hope they may be of some interest to you.

Kindest personal regards.

GIULIO NATTA

inviato il
A479, 589, 546
625-691. Pagg 65

Milan, July 13, 1965

Dr. Max Roha
Director Scientific Liaison
B.F.Goodrich Chemical Co.
2, Albertus de Oudelaan
Voorburg, Netherlands

cc : Dr. H. Mayer-Kaupp

: Editorial Board

Dear Doctor Roha:

I received your letter of June 2 and the corrections you brought to the paper: "Ionic Factors in Steric Control".

In my opinion, the remarks I had made on your paper were not marginal, but invalidated the general conclusion that the stereo-regularity of the polymers uniquely depends on ionic factors. In particular, I think that the interpretations given are not valid for all the polymerizations of olefins and of diolefins, we had previously defined as anionic co-ordinated. Therefore, you should clearly distinguish between the generally accepted data drawn from literature and the data that are still debated.

Your paper being a review, you should mention the various points of view, without neglecting your own opinions on the topic. I thank you for the acknowledgment at the end of the paper; however, as it is worded, it might seem that I accept the final conclusions you draw.

Kindest personal regards.

Giulio Natta

May 4, 1965

Mr.Robert Gould, Editor
Advances in Chemistry Series
ACS Applied Publications
1155 Sixteenth St.,N.W.,
Washington, D.C. 20036 (U.S.A.)

our ref.251/lv

Dear Doctor Gould:

I have received your letter of April 20 concerning the paper:"The Mechanism of Stereospecific Anionic Polymerization" by C.Schuerch et al., and send you my comments according to the criteria you indicated on the suitability of said paper for publication.

Kindest regards.

Giulio Natta

Encl/ 1 manuscript
comments on it

McGRAW-HILL BOOK COMPANY
330 WEST 42ND STREET, NEW YORK, N.Y. 10036
A DIVISION OF McGRAW-HILL, INC.

ENCYCLOPEDIA DIVISION

June 10, 1965

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

You may recall our correspondence of March and April in connection with the science biographies project that we are developing here. On March 31 you wrote that you would prepare an article for us before July 1.

I hope you still plan to write for us and will find an opportunity to do so soon. Our deadline is July 1, but I am sure there would be no problem if your article arrived a few weeks later. As of possible interest or assistance to you, I enclose several of the autobiographical sketches we have received from chemists.

Sincerely yours,

Jay E. Greene

Jay E. Greene
Editor, Biography Project

Ricordarsi
per vedere al
Prof. uno o due
delle biografie campione

McGRAW-HILL BOOK COMPANY
330 WEST 42ND STREET, NEW YORK, N.Y. 10036
A DIVISION OF McGRAW-HILL, INC.

ENCYCLOPEDIA & LIBRARY SERVICES DIVISION

August 2, 1965

471

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano
ITALY

Dear Professor Natta:

I am happy to forward to you McGraw-Hill's check for $25.50 as your honorarium for contributing an article to our science biographies project. The $.50 added to the stipulated honorarium of $25 represents the reimbursement for postage expenses that we are making uniformly to all overseas contributors.

Sincerely yours,

Jay E. Greene

Jay E. Greene
Editor, Biography Project

JEG:mk
Enc.

McGRAW-HILL BOOK COMPANY
330 WEST 42ND STREET, NEW YORK, N.Y. 10036
A DIVISION OF McGRAW-HILL, INC.

ENCYCLOPEDIA DIVISION

Ricordare

April 5, 1965

223

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

Dear Professor Natta:

Many thanks for your letter of March 31. I am delighted that you will prepare an article for our science biographies volume.

If you happen to have a picture of yourself that you could send along with your manuscript, I would be very happy to have it. Insofar as possible, our articles will be illustrated with pencil sketches that our artist is making from photographs of the subjects. If you should care to suggest or provide any other art work--a diagram, for example--that might add something to your exposition, that too would be welcome. A clipping from some published source, or a rough drawing from which our artist could work, would be fine.

Again, thank you very much for your interest in our project and for your cooperation. I look forward to seeing your article, which I am sure will be a valuable contribution to the book.

Sincerely yours,

Jay E. Greene

Jay E. Greene
Editor, Biography Project

McGRAW-HILL BOOK COMPANY
330 WEST 42ND STREET, NEW YORK, N.Y. 10036
A DIVISION OF McGRAW-HILL, INC.

ENCYCLOPEDIA DIVISION

March 17, 1965

Professor Giulio Natta
Institute of Technology
Milan, Italy

Dear Professor Natta:

Some weeks ago I invited you to contribute an article about yourself to a volume containing biographies of some 400 contemporary scientists that McGraw-Hill is now preparing as a supplement to its highly praised ENCYCLOPEDIA OF SCIENCE AND TECHNOLOGY.

If you plan to prepare such an article, I hope you will try to do so in the next month or two. Our deadline is July 1.

If your first reaction was unfavorable, I do hope you will reconsider. A number of our scientist-contributors have praised the projected volume as one of potentially great value to science education at the secondary-school and college levels. As you may recall from the sample article I sent you, we do not want conventional vitas or embarrassing self-appraisals but descriptions of scientific work--either a single major achievement or a series of related researches--that will give the student some understanding of modern scientific problems and some insight into the workings of the best scientific minds. Experience has taught us that only the scientist himself can write about his work with complete authority and accuracy.

We at McGraw-Hill would be delighted and honored to have you represented in our book by an article of your own composition.

Sincerely yours,

Jay E. Greene

Jay E. Greene
Editor, Biography Project
Encyclopedia Division

sw

McGRAW-HILL BOOK COMPANY
330 WEST 42ND STREET, NEW YORK, N.Y. 10036
A DIVISION OF McGRAW-HILL, INC.

ENCYCLOPEDIA DIVISION

January 29, 1965

90

Professor Giulio Natta
Institute of Technology
Milan, Italy

Dear Professor Natta:

As a supplement to its 15-volume ENCYCLOPEDIA OF SCIENCE AND TECHNOLOGY, McGraw-Hill is preparing a volume containing biographies of some 400 contemporary scientists. These biographies will be devoted primarily to accounts of each scientist's principal achievement, our aim being to give the student some insight into the natures of scientific problems and the workings of scientific minds. We hope that this book will be not only an important reference work but a valuable educational tool in high schools and colleges. Our advisory board has recommended that we include an article on you.

Because of the scarcity of published material describing the work of many contemporary scientists, and because also of the scarcity of writers competent to interpret accurately the material that is available, we have decided to take the unusual course, wherever practicable, of inviting the scientists themselves to write their own articles. The scientist-author would be assured of being represented in our book by an article of unimpeachable authority and accuracy. The book itself would be an altogether unique educational tool, of incomparable value to the educational community.

Would you consent to write an article about yourself for this biographical volume? I would like to have about 700 words, for which I am authorized to pay $25. In the hope that you will agree, I enclose a model article for your guidance. Please try to organize your article along the lines of the model, aiming insofar as possible at the same intellectual level. If you find it easier to write more than 700 words, please feel free to do so, although I may have to edit your piece to fit the allotted space.

I also enclose a self-addressed envelope for your use in mailing your manuscript to me. I am sorry that I cannot provide the postage as well, but McGraw-Hill will add to your honorarium any amount you spend on postage.

Sincerely yours,

Jay E. Greene

Jay E. Greene
Editor-in-Chief
Member, Board of Examiners
New York City Board of Education

sw

AMBASSADE DE FRANCE
AUX ETATS-UNIS
L'Attaché Scientifique

Washington, le 9 mars 1965

RH/msm 248-65

Professeur Giulo NATTA
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
MILANO (ITALIA)

Monsieur le Professeur,

Je suis désolé de répondre si tardivement à votre lettre du 20 novembre 1964. Je viens tout juste de recevoir les tirés à part de ma communication devant la New York Academy of Sciences.

Je vous en envoie bien volontiers un exemplaire, sur lequel j'apprécierais de recevoir vos commentaires ou ceux de vos collaborateurs.

En vous remerciant pour votre intérêt, je vous prie de croire, Monsieur le Professeur, en la sincérité de mes sentiments les plus distingués.

Impressionné de leur intérêt et de leur examen

Dr. Raymond HAMELIN
Attaché Scientifique
Ambassade de France
2129 Wyoming Ave., N.W.
WASHINGTON D.C.

P.J. 1

23 [illegible]

Mr. Allyn C. Fay
President
Industrial Inventions, Inc.
P.O. Box 42
Springfield Gardens N.Y. 11412
U.S.A.

Fun 1

227

Dear Mr. Fay,

Your letter of April 3, 1965 to Prof. Natta was passed on to us for consideration.

While thanking you for your communication, and while appreciating the very high practical interest which the invention of your pending application may have, we feel that, in order to be able to properly evaluate your offer, we should know more about your invention, so as to form a preliminary judgement as to whether the materials which are the object of Patent No. 3,175,999 would be suitable for the particular type of employ.

Accordingly, we would suggest that further consideration of the matter be postponed until a patent issues on your application.

Yours very truly,

" M O N T E C A T I N I "

MONTECATINI

SERVIZI BREVETTI

BREV/ESDO

21 APR. 1965

K 2079

Sede, 20 aprile 1965

Egr. Sig.
Prof. G. NATTA
Ist.Chim.Ind.
POLITECNICO di
M I L A N O

RP/cg

Lettera della Industrial Inventions.

Con riferimento alla Sua del 12 corrente all'ing. de Varda, Le alleghiamo copia della risposta che, se Ella è d'accordo, intendiamo inviare.

In attesa di un Suo cenno d'accordo, anche telefonico, Le inviamo i migliori saluti.

Pel che è d'accordo

BREVETTI

All.

ITALCABLE

Prot. [redacted]SQ9Q1 MP2398 NHGQ33 CD NHG NEW YORK NY 26 22 214P EDT

PER LA RISPOSTA
TELEFONATE AL N. **8838**

1933

PROFESSOR GIULIO NATTA
[redacted]STITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO PIAZZA
LEONARDODAVINCI 32 MILANO

TELEGRAMMA *via Italcable via Italo Radio*

1965 LUG [redacted]

22-7-1965

Spazio riservato agli estremi di ricevimento

MAY WE EXPECT YOUR ARTICLE FOR SCIENCE BIOGRAPHY VOLUME JULY 31 JAY GREENE

COL 32 31

CABLE ADDRESS
ROWECOCHRA, NEW YORK

Industrial Inventions, Inc.

Creating New Products For Industry

P. O. BOX 42 · SPRINGFIELD GARDENS, NEW YORK 11413

COL. SAMUEL ROWE, JAG, USAR RET.
VICE-PRESIDENT, GENERAL COUNSEL

3 April 65

Professor Giulio Natta
Milan, Italy

Dear Professor:

After reading the item in today's New York Times about your newest patent 3,175,999, I am taking the liberty to inquire of your interest in a patent pending for which I am at the moment awaiting first office action from the U.S. Patent Office, and which may well be useful as a profitable product using your 'plastics'.

This patent pending concerns a completely new concept of means, materiels and methods used in the replacement of sections of arterys in vascular surgery. Thru the unique design of the tube, against todays teflon knitted or woven tube, and of the means of connecting to the severed portion of the artery, the current tedious suturing procedure, condusive to surgical shock, is radically reduced either in a temporary graft, such as accident or battlefield emeggencies, or in permanant procedures as removable of an aneurism. Available confidential medical opinion is that the concept is sound.

Should your organization wish to give this serious consideration toward a mutually satisfactory possible agreement I would be willnaturally to sign and send you a confidential disclosure agreement.

Very truly yours

Allyn C Fay

Allyn C. Fay, ASSE,ASHAE
President

ACF/ns

August 27, 1965

Mr. Jay E. Greene
McGraw-Hill Book Company
330 West 42nd Street
New York, N.Y. 10036

our ref. 471/eg

Dear Mr. Greene:

Thank you very much for kindly sending the check for $ 25 for my contribution to your biographies.

Sincerely yours.

G. Natta

Prof. Natta

March 31, 1965

Dr. Jay E. Greene
Editor
McGraw-Hill Book Company
330 West 42nd Street
New York, N.Y. (USA)

our ref. 194/eg

Dear Doctor Greene:

Thank you for your letter of March 17, and please excuse me for not answering your previous letter of January 29.

My delay is due to the fact that I wanted to send you the required biography together with my answer. Unfortunately, for lack of time, I have not written it so far; however, I will certainly prepare it within July 1, 1965.

Kindest regards.

G. Natta

le 17 mars 1965

Dr. Raymond Hamelin
Attaché Scientifique
Ambassade de France
2129 Wyoming Ave., N. W.
Washington D.C.

Monsieur le Docteur,

Je viens de recevoir aujourd'hui l'exemplaire de votre communication présentée devant la New York Acddemy of Sciences, dont je vous remercie.

J'irai l'examiner avec beaucoup d'intérêt.

Veuillez agréer l'expression de mes sentiments les meilleurs.

G. Natta

JOHN WILEY & SONS, INC.—INTERSCIENCE PUBLISHERS, NEW YORK, LONDON & SYDNEY
605 THIRD AVENUE, NEW YORK, N.Y. 10016 TELEPHONE: 212 TN 7-9800 CABLE ADDRESS: JONWILE

ERIC S. PROSKAUER, VICE PRESIDENT

November 30, 1965.

TO ALL MEMBERS OF THE EDITORIAL AND
ADVISORY BOARDS
of the
JOURNAL OF POLYMER SCIENCE

You are cordially invited to attend a luncheon meeting of the Editorial and Advisory Boards of the JOURNAL OF POLYMER SCIENCE on Wednesday, January 19, 1966, at 12:00 noon, at the Westward Ho Hotel, Phoenix, Arizona.

So that we may have an accurate count of those who will be in attendance, would you kindly return to us the bottom portion of this letter, appropriately checked-off, as soon as possible.

Thank you, and we sincerely hope you will be able to be with us.

Very sincerely yours,

Eric S. Proskauer

ESP/rw

Eric S. Proskauer

JOURNAL OF POLYMER SCIENCE

Editors: H. Mark C. G. Overberger T. G Fox Editorial Board: R. M. Fuoss J. J. Hermans H. W. Melville G. Smets
Editorial Office: Polymer Research Institute, Polytechnic Institute of Brooklyn, 333 Jay Street, Brooklyn, New York 11201

December 8, 1965

Dr. G. Notta
Politicnico de Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Sir:

We are enclosing with this letter a manuscript (author and title given below) which has been submitted for publication in the JOURNAL OF POLYMER SCIENCE.

We would appreciate receiving your comments on this manuscript and your opinion regarding its suitability for publication in the JOURNAL OF POLYMER SCIENCE. Since we are trying to hold the interval between submission and publication dates down to a minimum, I would be very grateful if you could kindly return this manuscript, together with two copies of your comments (one unsigned), to me within the next three weeks. A self-addressed stamped envelope is also enclosed for your convenience.

nsp 13/14/1/66 !

AUTHOR(S): Kazuo Soga and Tominaga Keii

TITLE: "Kinetic Studies of the Propylene Polymerization with active $TiCl_3$-$Zn(C_2H_5)_2$

Passerò per favore referenze mie risposte

Enc.

Very sincerely yours,

C. G. Overberger/ett

C. G. Overberger
Editor

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

JOURNAL OF POLYMER SCIENCE

J. P. S. Part A Date: **December 8, 1965**

Author: **Kazuo Soga and Tominaga Keii**

Title: **"Kinetic Studies of the Propylene Polymerization with Active $TiCl_3$-$Zn(C_2H_5)_2$**

Is this paper acceptable for publication in the Journal of Polymer Science?

(1) YES ☐ (2) With minor revision ☑ (3) With major revision ☐

(4) NO ☐ If not, do you suggest another journal _____

COMMENTS: **From the experimental point of view the paper is fairly correct, but some remarks on the interpretations of the data have to be made.**

- The $TiCl_3$ used is $TiCl_3$ AA, that is it contains Al. Have the Authors examined the possibility of formation of Al-C bonds in the presence of $ZnEt_2$?

- $ZnEt_2$ is a strong reducer of VCl_3 and likely also of $TiCl_3$ (see Zambelli, Pasquon et al., Chimica e Industria 46, 1464 (1964)). The Authors speak of the absorption of $ZnEt_2$ on $TiCl_3$, but neglect possible reactions between $ZnEt_2$ and $TiCl_3$.

- The fact that the catalyst prepared from $AlEt_3$ yields a polymer having a molecular weight three times higher than that obtained in the presence of the system prepared from $ZnEt_2$ (see page 8) does not allow serious deductions on the relative rate of growth of macromolecules.

- The statements on the tacticity of the systems $ZnEt_2$-$TiCl_3$ should take into account the paper Natta, Pino, Mazzanti, Polymer Letters, Part B 2, 443 (1964).

Date Returned _____ Sign White Copy Only _____

Please Return Signed Original and One Anonymous Carbon.

If you cannot return this manuscript with comments in two weeks, please return it immediately without comments.

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

Am
(Jatke)

3375 Mona Avenue
Muskegon Heights, Michigan
U.S.A.
July 28, 1965

Sir:

Ans 27/8/65

May I have your autograph?
I am collecting signatures of only the most famous people and would very much like to add your name to my collection.

I am enclosing a card for the autograph.

If you will send me your signature I will be grateful.

Thank you.

Sincerely yours,
Orville Jatke

TIME-LIFE BOOKS, TIME & LIFE BUILDING, ROCKEFELLER CENTER, NEW YORK 10020, JUDSON 6-1212

December 2, 1965

Professor Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

Dr. Herman Mark, who is the author of one of our forthcoming Life Science Library books GIANT MOLECULES, has asked us to invite you to write the introduction. GIANT MOLECULES is the seventeenth book in the Life Science Library, a series which is designed for the general public and covers a wide variety of scientific and technological subjects.

The authors of GIANT MOLECULES are Dr. Mark and Lawrence Sandek, a professional science writer. Their manuscript is now in the process of completion, and we expect to have an edited version of most of it in the next six weeks. If you would like to read an unedited version, we can send it to you now, but please bear in mind that it will be only the roughest draft, and should be evaluated not for quality or clarity but only for the general areas of information that will be taken up.

The introductions to these books are each about 300 words long; the fee in $250. We would like to have the copy for this one in hand by December 27th, if that is possible.

I hope that you will agree to write this introduction. Our Time Incorporated Bureau in Rome will be in touch with you next week to show you some previously published volumes and to see if you would like to read the manuscript.

Sincerely yours,

Martin Mann

Martin Mann
Editor
Life Science Library

MM:bs

JOURNAL OF POLYMER SCIENCE

Editors: H. Mark C. G. Overberger T. G Fox **Editorial Board:** R. M. Fuoss J. J. Hermans H. W. Melville G. Smets
Editorial Office: Polymer Research Institute, Polytechnic Institute of Brooklyn, 333 Jay Street, Brooklyn, New York 11201

September 3, 1965

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Ieonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

Due to the fact that many members of the Editorial and Advisory Boards of the JOURNAL OF POLYMER SCIENCE will not have returned from the IUPAC Symposium on Macromolecular Chemistry (Prague) in time to attend the September Meeting of the American Chemical Society in Atlantic City, the Editors have decided to postpone the annual meeting until sometime during the January 1966 ACS Meeting in Phoenix, Arizona.

We will contact you again as soon as a specific date and exact location for the meeting have been decided upon.

FOR THE EDITORS

Roger E. Truelsen

Roger E. Truelsen
Managing Editor
Interscience Publishers Division

RET:jdb

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

THE M.W. KELLOGG COMPANY

P. O. BOX 696

NEW MARKET, N. J. 08854

TELEPHONE
AREA CODE 201
356-8400

RESEARCH & DEVELOPMENT
DEPARTMENT

August 31, 1965

Dr. Giulio Natta
Inst. Chim. Ind. Politeck.Plaza
Leonardo Davinci 32,
Milan, Italy

Sentire < Valvassori
Dell'Aste
Pasquon

Si fa fare

Dear Sir:

On June 16, I wrote you extending an invitation to participate in a symposium for the American Chemical Society entitled "The New Chemistry of Ethylene."

On checking my files I find no reply.

On September 12, the Program Committee of the Petroleum Division of the A. C. S. is scheduled to meet and I must present a progress report.

Please let me know your decision, if convenient, this week. I am hoping for a favorable response.

Sincerely yours,

H B Hass

H. B. Hass
Director of Chemical Research

HBH/mf

THE M.W. KELLOGG COMPANY

P. O. BOX 696

NEW MARKET, N. J. 08854

TELEPHONE
AREA CODE 201
356-8400

RESEARCH & DEVELOPMENT
DEPARTMENT

June 16, 1965

Salvatore Dall'Asta
Pompeo
se merita manutenzione
e/o fine
CrC3
e alternati

copia a
7/7

Prof. Dr. Giulio Natta
Ist. Chim. Ind. Politecn. Plazza
Leonardo Davinci 32
Milano, Italy

Dear Dr. Natta:

The Petroleum Division of the American Chemical Society has requested me to assume the chairmanship of a symposium on the New Chemistry of Ethylene, to be given at the New York A. C. S. Meeting, September 11-16, 1966.

While it is early to begin the solicitation of papers for this meeting, I am writing to you now so that you may have ample time to prepare the material and obtain clearance. The deadline for receipt of your paper is May 16, 1966.

I sincerely hope that some aspect of ethylene chemistry researched by you and/or your colleagues will prove to be appropriate for this symposium. It would help in the planning for you to let me know as promptly as convenient whether or not this can be done.

Sincerely yours,

H B Hass

H. B. Hass
Director of Chemical Research

HBH/mf

THE **KENDALL** COMPANY

Chicago Division

RESEARCH CENTER
411 LAKE ZURICH ROAD
BARRINGTON, ILLINOIS
TEL: 381-0370

(circular letter)

October 21, 1965

Prof., Dr. G. Natta
Instituto di Chimica Industriale del Tolitecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

I refer to my pleasant visit in your institute on last July 10th.

I am sorry that I did not meet you personally, but your Dr. G. Albanesi introduced me in the activities of your institute in a very expert manner. My best regards to him.

Thank you for your courtesies.

Very truly yours,

Perttu V. Laakso

Perttu Laakso
Head, Medical Chem. Sect.

PL/je

Duke University
DURHAM
NORTH CAROLINA

DEPARTMENT OF CHEMISTRY

POSTAL CODE 27706
TELEPHONE 919-681-0111

June 24, 1966

367

Professor Gulio Natta
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

I would like to invite you to present a paper at the Autumn Meeting of the National Academy of Science to be held October 16-18, 1966 in Durham, North Carolina. The polymer Symposium, consisting of four invited papers, will be held Tuesday morning, October 17. In addition to the polymer symposium there will be other symposia on low temperature physics and population control, as well as sessions devoted to general papers.

We would be most interested in hearing of some of the recent results from your laboratory, and can furnish travel and living expenses. I sincerely hope that you will find it possible to participate.

Sincerely yours,

William R. Krigbaum

William R. Krigbaum
Professor of Chemistry

WRK/dgv

American Lectures in Living Chemistry

I. NEWTON KUGELMASS, M.D., Ph.D., Sc.D., Editor
Consultant to the Departments of Health
and Hospitals, New York City

1060 Park Avenue
New York 28, New York
Atwater 9-4900

January 21, 1965

Dr. Giulio Natta
Polytechnic Institute
Milan, Italy

114

Dear Dr. Natta,

Our Editorial Office is besieged with inquiries on macromolecular chemistry but there is no such monograph to satisfy the current needs of chemically-minded physicians.

The interdependence of chemistry and medicine is so great that physicians are turning to chemistry and chemists to medicine in order to understand the underlying basis of life processes in health and disease.

You are at the helm in this field harboring newer knowledge vital for hybrid investigators, medical instructors, and clinical practitioners. Why not unravel your wisdom in the cause of medicine in a small book clarifying our bewildering panorama of chemical progress?

May I invite you to prepare such a monograph on MACROMOLECULAR CHEMISTRY for our "Living Chemistry Series", to be published by Thomas on a royalty basis? It may be limited to about 18,000 words or extended to 35,000, written with a co-author, if necessary, to enable completion of the manuscript by January, 1966.

Anticipating a confirmatory word in this worthy cause, I remain

Yours sincerely,

INK/s

THE KENDALL COMPANY
Chicago Division

RESEARCH CENTER
411 LAKE ZURICH ROAD
BARRINGTON, ILLINOIS 60010
TEL: 381-0370

P. O. Box 476

May 14, 1965

Prof. D. G. Natta
CENTRO DI CHIMICA MACROMOLECULASE DEL C.N.R.
Milan
Italy

Dear Dr. Natta:

I shall be in Milan during the week of July 5-9 this summer. May I ask your permission to visit your famous institute and meet some of the people working there.

We are especially interested in the medical uses of plastic materials.

Very truly yours

Perttu V. Laakso
Perttu V. Laakso
Head, Medicinal Chemistry

PVL:imp

Dr. John McGavack
144 Ames Ave.
Leonia, New Jersey
Sept. 17 1965

Dr. G. Natta
Istituto Di Chimica Industrial Del Politecnico Di Milano
Italy,

Dear Dr. Natta:

I am enclosing a copy of my article on "The 100 Top Contributors to the World's Rubber Literature published several years ago. I am not sure whether you have seen it before.

I am now planning in the very near future to bring this list up to date. In the new list your name will appear close to the top.

In order to make the article a little more interesting I am trying to get a short sketch, about 50 words, of the life of some of the more prominent persons on this list. You are one of them.

Could you take the time to send me a short, about 50 words, account of your life at your earliest convenience? I have about completed my article and expect to have it published this Fall.

Many thanks.

Sincerely,
John McGavack
John McGavack

TABLE II

GOODYEAR MEDALISTS OF THE RUBBER DIVISION

Rank	Name	Total no. publications*	Patents	Articles No.	Articles Pp.	Author Index
1.	Semon, W. L.	103	90	13	115	1.15
2.	Williams, I.	85	70	15	47	1.62
3.	Patrick, J. C.	63	63	0	0	1.11
4.	Winklemann, H. A.	52	39	13	50	1.51
5.	Fisher, H. L.	50	20	30	495	1.36
6.	Wiegand, W. B.	44	25	19	85	1.54
7.	Sebrell, L. B.	34	28	6	68	1.23
8.	Geer, W. C.	33	22	11	38	1.06
9.	Mooney, M.	32	8	24	185	1.47
10.	Whitby, G. S.	31	6	25	415	1.38
11.	Cadwell, S. M.	31	22	9	41	1.25
12.	Dinsmore, R. P.	24	2	22	148	1.12
13.	Spence, D.	18	11	7	90	1.26
14.	Davis, C. C.	8	6	2	375	1.50
15.	Oenslager, G.	8	4	4	25	1.00
16.	Carpenter, A. W.	7	2	5	37	1.00
17.	Simmons, H. E.	7	2	5	27	1.00
18.	Banbury, F. H.	4	2	2	4	1.20

* Production period not completely covered by this article.

they would rate high on our list. The other four medalists had qualifications outside the extent of their writings. However it also should be noted that all of the medalists had a low Author Index number—the average being 1.26. This shows that these men for the most part are truly individualists.

The geographical make-up of this group of 100 top rubber scientists by countries is as follows: United States 52, England 24, Russia 6, Holland 6, Germany 4, France 3, Japan 3, Canada 1, and Indonesia 1. In the first 10 there are 4 from the United States, 2 from England, 2 from Russia, and one each from France and Holland. This group of 10 produced 1064 articles or 21 per cent of all the articles in this list of 100 authors. It had an Author Index number of 1.81 and is a most distinguished group.

It is hoped that the compilation of this list will be helpful, useful, and interesting.

Reprinted from RUBBER CHEMISTRY AND TECHNOLOGY,
Vol. XXXV, No. 5, December, 1962
Printed in U. S. A.

100 TOP CONTRIBUTORS TO THE WORLD'S RUBBER LITERATURE 1932–1958

JOHN MCGAVACK

Who are the top contributors to the world's rubber literature? This is an interesting question and one that can be answered without too much trouble. Since 1932 the rubber scientists have had their efforts recorded and cataloged. In fact during the period of 1932 through 1958 there have been recorded and classified 56,296 publications on rubber. Recently I have made a study of these contributions and have picked out and classified the most prolific authors of the entire 56,296. The top one hundred contributors are given in Table I. In this table we have the name, the number of patents, the number of articles, the Author Index, the country of the author, and for the the thirty top contributors the number of publication pages written by each author.

The Author Index is a conception introduced by myself and needs a little explanation. It is obtained by counting the number of all the authors appearing with the individual under investigation and dividing that combined value by the total number of publications of the particular individual. For example, Mr. X was an author of 5 patents and 5 articles. He had a coauthor in three of the patents and two coauthors in each of two of the articles. Hence the total number of authors was 17. This figure divided by the total number of publications, in this case 10, gives the Author Index of 1.70.

The average value of the Author Index for the 100 top contributors is 1.82 with a low of 1.00 (which means no coauthor on any paper) and a high of 4.00 (which is equivalent to saying that the average number of authors on all papers was four). There are many things this Author Index can suggest to your mind. The two most obvious are—a low number indicates an individualist or a lone wolf, while the high number indicates group participation. Both of these circumstances may be helpful, or under other conditions could detract from the value of the article.

In our list of 100 top contributors the average Author Index of the first twenty individuals is 1.72 while for the last twenty the index is 1.78. This shows but slight fluctuation from the top to the bottom of the list. For this reason a reasonable indication can be made as to the actual number of individual authors there are of the 56,296 articles concerned in this report. This can be obtained by dividing the total number of publications, 56,296, by the average Author Index 1.82. This calculation shows that our rubber literature between the dates under investigation was produced by 30,800 individuals.

This calculation also shows that the 100 individuals are one-third of one per cent of the entire number of all the authors. This 100 authors produced 1746 patents and 3359 articles or 5105 publications or approximately 9.1 per cent of the total. In other words we have the interesting fact that one-third of one per cent of all the authors produced over 9 per cent of all the articles.

It is interesting to note that many authors, such as Whitby Bloomfield,

TABLE I

THE 100 TOP CONTRIBUTORS TO THE WORLD'S RUBBER LITERATURE

Rank	Name	Total no. publications	Patents	Articles No.	Articles Pp.	Author Index	Country
1.	Scott, J. R.	173	3	170	1373	1.59	England
2.	Dogadkin, B. A.	140	8	132	1298	2.67	Russia
3.	Hauser, E. A.	106	9	97	330	1.47	U.S.
4.	Twiss, D. F.	104	78	26	212	2.03	England
5.	Semon, W. L.	103	90	13	115	1.15	U.S.
6.	Kuzminskii, A. S.	94	0	94	685	2.34	Russia
7.	Houwink, R.	88	2	86	595	1.35	Holland
8.	Mark, H.	87	1	86	1070	1.85	U.S.
9.	Le Bras, J.	85	5	80	986	1.56	France
10.	Howland, L. H.	84	45	39	203	2.06	U.S.
11.	Williams, I.	83	70	13	47	1.62	U.S.
12.	Stevens, H. P.	81	10	71	413	1.78	England
13.	Esch, W.	78	1	77	177	1.06	Germany
14.	McGavack, J.	75	49	26	134	1.21	U.S.
15.	Murphy, E. A.	73	62	11	120	1.92	England
16.	Fryling, C. F.	72	62	10	110	1.53	U.S.
17.	Gee, G.	70	4	66	105	1.49	England
18.	Kemp, A. R.	70	27	43	134	1.86	U.S.
19.	Gehman, S. D.	67	10	57	128	1.91	U.S.
20.	Kambara, S.	65	1	64	201	2.02	Japan
21.	Guth, E.	63	1	62	99	2.06	U.S.
22.	Patrick, J. C.	63	63	0	0	1.11	U.S.
23.	Bartenev, G. M.	62	0	62	119	1.92	Russia
24.	Schidrowitz, P.	62	16	46	246	1.43	England
25.	Jones, F. A.	61	48	13	140	2.28	England
26.	Morris, R. E.	61	2	59	302	2.71	U.S.
27.	Naunton, W. J. S.	60	8	52	81	1.71	England
28.	Sparks, W. J.	60	54	6	42	2.34	U.S.
29.	Garvey, B. S.	59	24	35	134	1.72	U.S.
30.	Thomas, R. M.	59	52	7	25	2.06	U.S.
31.	Flory, P. J.	57	12	45	393	1.63	U.S.
32.	Madge, E. W.	57	35	22	118	2.06	England
33.	Bloomfield, G. F.	56	15	41		1.85	England
34.	Farmer, E. A.	56	6	50		1.81	England
35.	Marvel, C. S.	55	5	50		3.17	U.S.
36.	Bongrand, J. E.	52	38	14		1.90	France
37.	Treloar, L. R. G.	52	0	52		1.19	England
38.	Winklemann, H. A.	52	39	13		1.51	U.S.
39.	Van Amerongen, G. J.	51	7	44		1.79	Holland
40.	Blokh, G. A.	50	0	50		2.60	Russia
41.	Buist, J. M.	50	9	41		1.73	England
42.	Fisher, H. L.	50	20	30		1.36	U.S.
43.	Charlesby, A.	49	13	36		1.47	England
44.	Kargin, V. A.	49	0	49		2.45	Russia
45.	Juve, A. E.	48	3	45		3.04	U.S.
46.	Taft, W. F.	47	1	46		4.00	U.S.
47.	Neal, A. M.	47	36	11		1.78	U.S.
48.	Furukawa, J.	45	5	40		2.12	Japan
49.	Van Gils, G. E.	44	3	41		1.29	Holland
50.	Wiegand, W. B.	44	25	19		1.54	U.S.
51.	Talalay, J. A.	43	37	6		1.18	U.S.
52.	Stern, H. J.	42	4	38		1.11	England
53.	Stevens, W. H.	42	2	40		1.48	England
54.	Young, D. W.	42	35	7		2.23	U.S.

TABLE I—(*Continued*)

Rank	Name	Total no. publications	Patents	Articles No.	Articles Pp.	Author Index	Country
55.	Compagnon, P.	41	4	37		1.97	France
56.	Gammeter, J. R.	41	41	0		1.05	U.S.
57.	Gibbons, W. A.	41	36	5		1.36	U.S.
58.	Smith, G. E. P. JR.	41	26	15		2.22	U.S.
59.	Bekkedahl, N.	40	3	37		1.85	U.S.
60.	Blow, C. M.	40	7	33		2.18	England
61.	Davis, A. R.	39	29	10		1.53	U.S.
62.	Kolthoff, I. M.	39	3	36		2.43	U.S.
63.	Stewart, W. D.	39	32	7		1.53	U.S.
64.	Neale, A. E. T.	38	33	5		1.50	England
65.	Teague, M. C.	36	31	5		1.35	U.S.
66.	Van Der Bie, G. F.	36	4	32		1.40	Indonesia
67.	Salomon, G.	35	0	35		2.06	Holland
68.	Williams, H. L.	35	8	27		1.88	U.S.
69.	Bayer, O.	34	26	8		3.06	Germany
70.	Sebrell, L. B.	34	28	6		1.23	U.S.
71.	Wake, W. C.	34	1	33		1.65	England
72.	Bateman, L.	33	0	33		1.97	England
73.	Craig, D.	33	15	18		2.19	U.S.
74.	Geer, W. C.	33	22	11		1.06	U.S.
75.	Gul, V. E.	33	0	33		2.24	Russia
76.	Hirst, A. J.	33	26	7		1.15	England
77.	Watson, W. F.	33	0	33		2.02	England
78.	Ecker, R.	32	10	22		1.59	Germany
79.	Muller, E.	32	27	5		2.96	Germany
80.	Philpott, M. W.	32	1	31		1.23	England
81.	Mooney, M.	32	8	24		1.47	U.S
82.	Cadwell, S. M.	31	22	9		1.25	U.S.
83.	Maron, S. H.	31	0	31		2.67	U.S.
84.	Shelton, J. R.	31	0	31		2.06	U.S.
85.	Whitby, G. S.	31	6	25	415	1.38	U.S. Canada
86.	Crouch, W. W.	30	23	7		1.60	U.S.
87.	Imoto, M.	30	0	30		2.13	Japan
88.	Van Rossem, A.	30	0	30		1.32	Holland
89.	Duke, J.	29	0	29		3.73	U.S.
90.	Heinische, K. F.	29	0	29		1.45	Holland
91.	Te Grotenhuis, T. A.	29	26	3		1.14	U.S.
92.	Melville, H. W.	28	0	28		1.78	England
93.	Reynolds, W. B.	28	16	12		2.43	U.S.
94.	Stiehler, R. D.	28	0	28		2.28	U.S.
95.	Wolf, R. F.	28	4	24		1.50	U.S.
96.	Bossomworth, G. P.	27	22	5		1.63	U.S.
97.	Stevens, A. H.	27	26	1		1.00	U.S.
98.	Rehner, J.	27	9	18		1.70	U.S.
99.	Blake, J. T.	26	1	25	450	1.65	
100.	Barton, B. C.	25	15	10		1.45	U.S.

Blow, Garvey, Gehman, Mark, Murphy, Naunton and many others have been active and writing during this whole period—quite a record.

It will also be interesting to compare our Goodyear Medalists with this list of 100 top contributors. For this reason we have prepared Table II. It can be seen that of the 18 medalists 11 appear on our list. Three of those that did not appear did a large part of their scientific work on rubber before the start of the period we are investigating. Undoubtedly with their earlier work considered

12.4.1965

Egr. Dr. Ing. G. deVarda
Servizio Brevetti
Società Montecatini

S e d e

Caro Ingegnere,

ricevo una lettera da parte della Industrial Inventions, Inc. di Springfield Gardens, New York, di cui Le allego copia.

Le sarei grato se volesse dirmi cosa devo rispondere, a meno che non voglia rispondere Lei direttamente.

Molti cordialissimi saluti.

Giulio Natta

All/

Inventions conceived, developed, and patented or patent pending by this organization to date.

1.	U.S. Patent 2,670,209	Stroke Saver. Golf stroke training device. Licensed to 'Stroke Saver Corp.'
2.	U.S. Patent 3,076,424	Hydraulically operated braking system for ocean going vessels. Full size prototype now under construction for sea trials by an agency of the U.S. Government.
3.	U.S. Patent 3,125,765	Universal roughing toilet outfit, wash-down or reverse trap. Same tank and bowl installs on 10"-12"-14" roughings. Designed strictly in accord with U.S. Department of Commerce commercial standards CS20-63 for vitreous china plumbing fixtures. Under developement by two manufacturers.
4.	U.S. Patent pending	Removable and replaceable recess bathtub in any materiel. Creates replacement market for bathtubs not existing today due high labor costs of removaing bathtubs of present design from built in wall position.
5.	U.S. Patent pending	Means, materiels and methods or temporarily or permanently replacing section of damaged, or 'hardensd' artery, or aneurized artery, eliminating the present tedious suturing, thus shortening surgical time and radically reducing risk of surgical shock.
6.	Developing	
7.	Developing	

Oct.27, 1965

Dr.H.B.Hass
Research & Development Dept.
The M.W.Kellogg Co.
P.O.Box 696
New Market, N.J. 08854 (U.S.A.)

our ref.501/lmv

Dear doctor Hass:

Accept my apologies for my long delay in answering your letters about the ACS Symposium on "The New Chemistry of Ethylene".

This is a topical subject of wide and great interest. Unfortunately, neither my coworkers not myself are able to participate in it owing to other engagements.

Kindest regards.

Giulio Natta

Ann -

July 27, 1966

Prof. William R. Krigbaum,
Chemical Dept.,
Duke University,
Durham, North Carolina (U.S.A.)

our ref. 367/lmv

Dear Professor Krigbaum:

I sincerely thank you for kindly inviting me to attend the Autumn Meeting of the National Academy of Science.

I would have been very pleased to accept your invitation, but, unfortunately, I heard of it too late, when I had already taken other engagements for the same period.

My delay in answering is due to the fact that I wanted to see whether someone of my co-workers had the possibility to come in my place: however, all my best co-workers will be engaged in lecturing tours abroad in September and October.

I mostly regret to be unable to accept your invitation and send you kindest personal regards.

Giulio Natta

AVERY A. MORTON
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS

June 30, 1965

Professor Giulio Natta,
Director, Ind. Chem. Inst.,
Milan Institute of Technology,
Milan, Italy.

Dear Professor Natta:

After endless delay by the publisher the book which I promised in Nov. 1963 is at last published. By separate package a copy is on its way to you. Its subject is cation influence and solid aggregates more than polymerization, although the last named comprises about a third of the contents. Chemists have generally ignored the cation and have based all explanations on the anion. I have endeavored to show, how the cation can function, is, indeed, a dominant force. For brevity sake I have made no effort to show the relationship with your reagents.

With apologies for the delay and the kindest personal regards, I remain

Sincerely your's

Avery A. Morton

182 Standish Road,
Watertown, Mass. 02172

INSTITUTE OF RUBBER RESEARCH
THE UNIVERSITY OF AKRON
AKRON 4, OHIO

MAURICE MORTON
DIRECTOR

February 23, 1965

VIA AIR MAIL

145

Professor Giulio Natta
Istituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I wish to acknowledge your letter of February 16 on behalf of Dr. Flisi.

You will be interested to know that we are making arrangements to accept Dr. Flisi here for a 12-month visit, and that he will probably be working in collaboration with our Professor Gent in the field of elastomer physics.

Thank you very much for your letter of recommendation.

Sincerely yours,

Maurice Morton

Maurice Morton

MM:bnz

Aw (Nichols)

Winona, Kansas
67764, U.S.A.
12 June 1965

Dr. Giulio Natta
Polytechnic Institute
Milan, Italy

Dear Sir:

My belated congratulations on the receipt of the 1963 Nobel Prize in Chemistry.

I hope that you can find time from your busy schedule to sign the enclosed card for my autograph collection and return it to me.

Best wishes for continued success.

Respectfully,
Lee Nichols, Editor
The Winona Leader
Box 175
Winona, Kansas, 67764
U.S.A.

Ri
N
8/7/65

Nov.9, 1965

Mr.John McGavack,
144 Ames Ave.,
Leonia, NEw Jersey (U.S.A.)

Dear doctor McGavack:

According to your request of Sept.17, 1965, I send you a short biography of myself.

Apologizing for my delay, I send you kind regards.

Giulio Natta

Biography

A judge's son, Giulio Natta was born in Imperia, Feb.26, 1903. In 1924 he graduated doctor in Chemical Engineering at the Milan Polytechnic Institute. He was successively appointed Professor and Director of the chemical departments of several Italian Universities. From 1938 he has been appointed full Professor and Director of the Institute of Industrial Chemistry, Milan Polytechnic Institute.
He won the Nobel prize for Chemistry (a share with Prof.Ziegler) in 1963 for his works on the stereospecific polymerizations.
The scientific activity of Prof.Natta is illustrated by more than 500 publications on topics concerning physical-chemistry, structures, ~~analysis~~ kinetics, industrial organic and petrolchemical syntheses.

Prof.Natta is married with two sons.

Ans /

May 21, 1965

dr.Perttu V.Laakso, Head
Medical Chemistry,
Research Center,
The Kendall Company,
P.O.Box 476
Barrington, Illinois 60010 (U.S

our ref.294/lv

Dear Doctor Laakso:

This is in reply to your letter of May 14, 1965. When in Milan, you can certainly visit my Institute. If, by chance, I am absent, some co-workers of mine will meet you and discuss topics of mutual interest.

Sincerely yours,

Giulio Natta

Feb.17, 1965

Dr.I.Newton Kugelmass, Editor
American Lectures in Living Chem.
1060 Park Avenue,
New York 28, New York (U.S.A.)

our ref.114/lv

Dear Doctor Kugelmass:

Thank you for your kind letter of Jan.21 and for inviting me to prepare a monograph on Macromolecular Chemistry for your "Living Chemistry Series".

I mostly regret informing you that I cannot accept your invitation both because I am overwhelmed with duties and previous engagements, and because, though widely dealing with macromolecular chemistry, I have never probed into its biological standpoint.

Kindest personal regards.

Giulio Natta

Ann

July 7, 1965

Prof. Avery A. Morton
182 Standish Road
Watertown, Mass. 02172

our ref. 410/eg

Dear Professor Morton:

Thank you very much for your kind letter of June 30, informing me that you sent me the book I will read with much interest.

I also thank you for the information supplied on the subject-matters dealt with.

Kindest personal regards.

G. Natta

Feb.16, 1965

Prof.Maurice Morton, Director
Institute of Rubber Research,
The University of Akron,
Akron, Ohio (U.S.A.)

our ref.115/lv

Dear Professor Morton:

I wish to inform you that N.A.T.O. granted a fellowship to Dr.Umberto FLISI, with the purpose of specializing in the field of the properties of elastomers, in the U.S.A.

Dr.Flisi has been working with me and with Prof.G.Crespi on research pertaining to the thermodynamic properties of the elastomers synthesized at our Institute.

I would mostly appreciate your accepting Dr.Flisi at your Institute for 12 months, to develop research under your and your co-workers' guidance.
Dr.Flisi is an earnest and qualified young man. I am sure he will develop a good work, also in your interest, and will thus complete his scientific preparation at your Institute.

Please, let me know, at your earliest convenience, if and when it is possible for you to accept Dr.Flisi at your Institute.

I thank you very much in advance and send you my kindest personal regards.

Giulio Natta

March 12, 1965

Prof.Maurice Morton, Director
Institute of Rubber Research
The University of Akron,
Akron 4, Ohio (U.S.A.)

our ref.145/lv

Dear Professor Morton:

Thank you very much for the kind interest you took in making arrangements to accept Dr.Flisi in your Institute.

I appreciate your kindness very much.

Sincerely yours,

Giulio Natta

Prof. Giulio Natta
Istituto Chimica Industriale
Milano.

July 21st, 1965

Dear Professor Natta;

You may recall my taking your picture for a book I was working on. I now take great pleasure in presenting you with a copy of : The Italians - FACE OF A NATION, McGraw - Hill is publishing in the United States on September 2nd. I hope you enjoy it.

The publishers of McGraw - Hill would be very honoured if you Sir would care to make some comments on this book they could quote in the promotion of this work. The idea is to get the considered opinion of distinguished Italians so as to give American readers an idea of what Italians really think of this book.

I take the liberty of including in this letter some of the reactions we have had so far.

Alberto Moravia:" It seems to me that through the faces of these many representative Italians shines the face of the nation, just as the title says."

Federico Fellini, "Il tuo libro, invece, riesce ad essere, con simplicità e con gentile freschezza, un ritratto inedito ma cosi autentico e simpatico del paese in cui vive che sono contento di essere Italiano."

Pininfarina:" Your book is an act of love towards a country which can only be proud of your friendship expressed by caustic lenses and excellent spirit."

Indro Montanelli:" Volevo dare, attraverso sessantacinque ritratti, un ritratto dell'Italia. E c'è riuscito, serondosi solo dei suo occhi, del suo amore e del suo umorismo, meglio di molti romanzieri e di tutti sociologi."

In case you would do me the honour of making some comments, could you please send them to me here in Italy and I will forward them to New York.

Yours Very Sincerely
John Phillips
John Phillips

John Phillips
23, Via San Maurilio
Milano, Italy

Ann

POLYMER RESEARCH INSTITUTE

UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS. 01003

RICHARD S. STEIN
Director

Office: Room 167
Goessmann Laboratory
Phone 413 545-2615

September 23, 1965

Gentlemen:

To aid us in revising our mailing list would you please fill out the form below and return it to us at your earliest convenience. Also, if you know of anyone else interested in receiving our seminar notices, reports and reprints, we would appreciate your bringing their name(s) to our attention.

Thank you for your cooperation.

Sincerely yours,

Richard S. Stein

Richard S. Stein, Director
Commonwealth Professor
of Chemistry

RSS:cz

no posto
affermativa
e data anche il
nome di valvasor
(6/10/65)

Mrs. John Phillips
17 west 54 Street
New York, 19
N. Y.

Ann Phillips

September 15th, 1965

Dear Professor Natta;

My most heartfelt thanks for your very kind letter. I am very happy that you enjoyed my book. I am sending you the enclosed review in the belief that it might interest you.

Yours Very Sincerely.

John Phillips

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET · BROOKLYN 1, NEW YORK · ULster 5-8000

DEPARTMENT OF CHEMISTRY

January 29, 1965

Professor G. Natta, Director
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo Da Vinci 32
Milan, ITALY

Dear Professor Natta:

Many thanks for your letter of January 19th. I am sorry we do not have any written reports on the meeting on "High Resolution NMR Spectroscopy of Polymers". We carry out the philosophy similar to the Gordon Research Conferences in order to stimulate discussion. However, I will send a reprint of our paper and Bovey's latest paper in the area, at a later date.

With best personal regards and good wishes,

Sincerely yours,

Murray Goodman

MG:DL

Murray Goodman

Sept.9, 1965

Mr.John Phillips,
17 West 54th Street,
New York 10019, N.Y. (U.S.A.)

Dear Mr.Phillips:

Thank you very much for kindly sending me your book: "The Italiana. Face of a Nation", which I read with much interest.

Your attempt to describe a country through the description of some of its inhabitants belonging to different social spheres and developing various activities is very interesting, and, in my opinion, you have succeeded in your aim. "The Italians" are characterized in a clear and nice manner, through the most essential aspects of their character.

I am convinced that your book, very pleasant to read, will be welcome not only by foreign people, but also by the Italians that are described and photographed in such a ~~nice~~ lively manner.

As far as I am concerned, you have made a romance out of the chemical amusements of my youth.

I wish you all the success you deserve.

Sincerely yours,

Giulio Natta

July 29, 1965

Mr. John Phillips
23, Via San Maurilio
Milano

Dear Mr. Phillips:

Thank you very much for your letter and for kindly sending me copy of your book "The Italians - Face of a Nation".

Since I am leaving for a period of rest, I will read it and on my return to Milan, I shall write you my comments.

Kind regards.

Sincerely yours,

Giulio Natta

June 7, 1965

Prof.Murray Goodman,
Dept.of Chemistry,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (U.S.A.)

Dear Doctor Goodman:

Your kind cable from the Brooklyn Symposium has deeply moved me. Accept my sincerest thanks for your kind thought.

Sincerely yours,

G.Natta

Mrs. John Phillips
17 west 54 Street
New York, 19
N. Y.

Jim Phillips

September 15th, 1965

Dear Professor Natta;

My most heartfelt thanks for your very kind letter. I am very happy that you enjoyed my book. I am sending you the enclosed review in the belief that it might interest you.

Yours Very Sincerely.

John Phillips

January 19, 1965

Dr. Murray Goodman
Polytechnic Institute of Brooklyn
333, Jay Street
Brooklyn, New York 11201 (USA)

our ref.49/eg

Dear Doctor Goodman:

I am very much interested on your work which will be presented at the coming sympodium on "High Resolution NMR Spectroscopy of Polymers".

Would you be kind enough to send me either a copy or the reprint of your work, as soon as possible?

Thanking you in advance, I send you my best regards.

G. Natta

May 31, 1966

Prof.H.Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

Dear Mark:

Thank you for kindly sending me copy of the volume dedicated to you.

This book, together with the several other honours you received on the occasion of your 70th birthday, show the great renown you have acquired for your pioneering work in the macromolecular field all over the world.

With kindest regards and best wishes,

Giulio Natta

June 7, 1965

Prof.H.Mark,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (U.S.A.)

Dear Professor Mark:

Your kind cable from the Brooklyn Symposium has deeply moved me. Accept my sincerest thanks for your kind thought.

I wish you all the best and ever increasing success for your work.

Rosita joins me in sending you and Mimi kindest personal regards.

Giulio Natta

ITALCABLE

Prefisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

LMS370 MP3270 CD TDN BKLYN NY 49 28 516P

ER LA RISPOSTA
TELEFONATE AL N. 8838

LT PROF G NATTA
DIRETTORE DELL ISTITUTO DI CHIMICA
INDUSTRIALE DEL POLITECNICO DI
MILANO PIAZZA LEONARDODAVINCI 32
MILANO 349

TELEGRAMMA via *Italcable* via *Italo Radio*

1965 MAG 29

29-5 1965

CUC

Spazio riservato agli estremi di ricevimento

POLYMER SCIENTIST ASSEMBLED AT THE SYMPOSIUM IN BROOKLYN ANXIOUS TO EXTEND TO YOU THEIR DEEP ADMIRATION AND BEST WISHES FOR YOUR WELL BEING

C G OVERBERGER
MURRAY GOODMAN
AND HERMAN MARK

3 lettere di auguri

REPT 32

RESEARCH LABORATORIES

GENERAL MOTORS CORPORATION

December 11, 1964

Ricevuta 30
letto Natta

21 DIC. 1964
R 870

Dr. G. Natta
Istituto Chimica Industriale
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

Prof. Herman F. Mark will receive the Witco Award for Polymer Science at the American Chemical Society National Meeting in Detroit on April 5, 1965. I have been invited to organize and chair this Witco Award Symposium in honor of Prof. Mark. Dr. T. Alfrey, Jr., will act as co-chairman. The program will include talks by Profs. Overberger, Marvel, Zimm, Flory, and Mark.

To further acknowledge Prof. Mark's contributions to polymer science and technology, I am inviting members of the Editorial and Editorial Advisory Boards of the Journal of Polymer Science, Journal of Applied Polymer Science, and Biopolymers to submit congratulatory messages. Please address your letter to Prof. Mark but forward it to me. Please use a standard page (8-1/2 x 11 inches) and support the unfolded page between cardboards to avoid folding during mailing. All of the letters will then be bound and presented to Prof. Mark at the Witco Award Symposium.

Many thanks for your co-operation in establishing this tribute to Prof. Mark. Your reply by January 25 will be appreciated.

Very truly yours,

Philip Weiss

P. Weiss, Head
Polymers Department

PW:syh

GENERAL MOTORS TECHNICAL CENTER
12 MILE AND MOUND ROADS WARREN, MICHIGAN

OFFICE OF THE DEAN OF THE FACULTY

Ans (Kaufman

April 9, 1965

Prof. G. Natta
Direttore dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Permit me to thank you very much for your letter of April 1, 1965 concerning Dr. Kaufman and for the consideration which you so kindly have given to him.

Please be advised that Dr. Kaufman's main interest in studying abroad on his Sabbatical Leave is that he is essentially interested in fundamental problems and would appreciate the opportunity of studying at an outstanding university.

With sincere appreciation for your thoughtfulness, and with kindest regards and best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:gf

a Sperlu Kaufman

OFFICE OF THE DEAN OF THE FACULTY

March 15, 1965

Professor G. Natta
Direttore dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Dr. Martin Kaufman, who, many years ago was one of our best students and who is now Research Director in one of our largest and best government laboratories, has been selected to be sent abroad for a Sabbatical Leave in order to study modern methods and aspects in the chemistry and technology of polymers. These special leaves are only given to the most prominent and promising members of the U.S. Government laboratories with the intention to educate the future leaders in a spirit of progressivism and international flavor.

Dr. Kaufman asked me where he should go and I took the liberty to suggest to him writing to you not only because your academic and scientific approach surpasses that of any other Institute in the world but also because your work is highly appreciated in industry and, in fact, has already lead to extremely important industrial developments. It is obvious that Dr. Kaufman is very anxious to work at an Institution which has not only demonstrated its capacity to blaze new trails but who follow up in cooperation with large and successful industrial organizations.

You will find that Dr. Kaufman is extremely knowledgeable in his field, very imaginative, very patient and a very likeable and pleasant fellow.

I suggested that he write to you and I promised him that I would send you a letter at the same time.

With warmest personal regards and very best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:gf

P.S. Please permit me to enclose a copy of the Program of the Gordon Research Conferences which I hope will be of interest to you.

POLYTECHNIC INSTITUTE OF BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201

OFFICE OF THE DEAN OF THE FACULTY

January 7, 1965

Dr. Mario L. Ottolenghi
Vice President
Chemore Corporation
100 East 42nd Street
New York 17, N. Y.

Dear Dr. Ottolenghi:

Many thanks for your very kind letter of December 31, 1964.

Please be assured that it will be a privilege and pleasure for me to act as an expert witness in the litigation between Montecatini and Eastman Kodak in the field of isotactic polypropylene.

With kindest personal regards and very best wishes for the new year, I remain,

Sincerely,

H. Mark

H. Mark

HM:mw

CHEMORE CORPORATION

December 31, 1964

Dr. Herman F. Mark
Polymer Research Institute
333 Jay Street
Brooklyn N.Y.

Dear Dr. Mark:

Following our recent conversation I have the pleasure to confirm that the Montecatini Company extends to you through the writer, an invitation to be their expert consultant in a controversy over the infringement by Eastman Kodak of Montecatini's basic patents concerning isotactic polypropylene.

Hoping that this invitation will be accepted I am sending you my best personal regards and my renewed good wishes for a happy New Year.

Sincerely yours,

Mario L. Ottolenghi
Vice President

MLO:lep

Comments on the revised manuscript "Effect of the Transition Metal on the Stereoregular Polymerization of Butadiene" by K.Matsuzaki and T.Yasukawa.

1) In this new draft, the Authors make a distinction between "ordinary" and "exceptional" polymerization conditions. This distinction seems rather strange. The catalyst $AlEt_3$- violet $TiCl_3$ [1] at room temperature yields highly crystalline trans-1,4 polybutadiene: is this an "exceptional" catalyst?
Moreover, Natta et al. [2] obtained trans-1,4 polybutadiene by the system $AlEt_3$-$TiCl_4$ at an Al/Ti ratio 2 and not 0.5 as reported in the Authors' answer. Are these "exceptional" conditions? It is of interest that at this ratio a mixture is obtained of prevailingly cis-1,4 macromolecules and of prevailingly (90%) trans-1,4 macromolecules. This demonstrates, in the best way, that catalysts based on Ti can yield either trans-1,4 or cis-1,4 polymers or both of them. The Authors should take these facts into account.

2) The polymer yield by some V catalysts (e.g. by the system $AlEt_3$-violet VCl_3 [3]) is fairly high. Therefore, the data of fig.1 regarding the polymer yield are valid only for the particular catalyst system and for the particular conditions followed by the Authors, and not for all the catalysts based on V. In my opinion, also the system $AlEt_3$/$AlCl_3$/Vanadium triacetylacetonate used by the Authors gives polymer yields higher than those indicated in fig.1, provided the polymerization is performed at low temperature (-10 ÷ -20°C)(no indication is given by the Authors of the polymerization temperature).

3) It is true that in the reaction between aluminum trialkyl and transition metal compounds, the latter can be reduced, under particular conditions, to the zero valency state. However, some evidences exist

that in the catalyst complexes that are active in the formation of linear high polymers (and in particular in the catalyst systems used by the Authors) the transition metal is not in the zero valency state. In the systems $AlEt_3/AlCl_3$/metal acetylacetonate , Ti is most probably in the trivalent state; the same holds for Vanadium and Chromium. Almost certainly Cobalt is bivalent; in any case its valency is not below 1.

G.Wilke with Ni(0) complexes obtained cyclic trimers, but not linear polymers of butadiene[4].

My beliefs on the effect of the transition metal on stereospecificity are completely different from the Authors' ones.

The concept that a weak interaction between monomer and transition metal gives rise to a trans polymerization seems rather strange.

Similarly I do not think that the scarce catalytic activity of Mn or Fe depends on a strong interaction between monomer and transition metal.

4) If the Authors insist on their intention of publishing this paper, they should at least consider the following points:

a) the title should be modified. A possible title could be:"Some remarks on the effect of the transition metal on the polymerization of butadiene by catalyst systems $AlEt_3/AlCl_3$/metal acetylacetonate".

b) They should consider whether their remarks are valid also when the active species contains the transition metal in a valency state different from zero.

References

1) G.Natta et al.Gazz.Chim.It.89, 761 (1959).
2) G.Natta et al.Chimica e Industria 41, 398 (1959).
3) G.Natta et al.Chimica e Industria 40, 362 (1958).
4) G.Wilke, Angew.Chem.Intern.Ed. 2, 105 (1963).

DEPARTMENT OF CHEMISTRY

May 13, 1965

Professor G. Natta
Direttore dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

You recently reviewed a manuscript (Ved. #203) entitled "Effects of Transition Metals on the Stereoregular Polymerization of Butadiene" by K. Matsuzaki and T. Yasukawa.

A copy of the original manuscript and your comments are enclosed. Also enclosed is a copy of the authors' letter of rebuttal and a revised manuscript. Do you think the paper has been improved sufficiently to warrant publication?

With kindest regards -

Very sincerely yours,

C. G. Overberger/gf

C. G. Overberger

CGO:gf

1) The present authors do not intend to attribute a general validity to the results shown in Figs. 1 and 2.

It is well known that the stereoregularity and the yield of polymer are greatly affected by many factors, such as the species of organometallic compouns, ratios of transition metal/organometallic compound, and the addition of third components. For example, as cited in the revised manuscript, the addition of basic reagents affect the electronic structure of transition metal and these effects seem to need further discussions .

In the present paper , we intend to discuss the polymerization under ordinary conditions (It seems that the comparison between the data obtained under the same conditions has not been published).

Illustrations cited by the reviewer seem to be the results obtained under rather excepional conditions.

G.Natta et al., Chimica e Industria 41,398(1959).

ratio of Al/Ti ; 0.5

G.Natta et al., Gazz.Chim.It.,89,761 (1959).

Heterogeneous catalyst containing $TiCl_3$ of various lattice structure.

British patent 848067 ;

Catalyst $TiI_4/LiAlH_4$.

2) The yield by the V catalyst is low for chloride but not low for iodide . The addition of third components may, under proper conditions ,increase the yield.

3) many papers suggest that transition metal ions (Cr Ni) are reduced under ordinary conditions to zero valent.* As for Ti and V, as discussed in the present paper, these metals may not be zero valent. However , the assumption made in the present paper would not be groundless.

L.Porri et al., Die Makromolekular Chemie 61, 90 (1963). The authors suggested that the active species is a complex containing the compound $RVCl_2$, which does not contradict with our assumption.

L. Porri et al., Die Makromolukular Chemie, 60,236(1963). The authors did not insist that bivalent Co is active.

4) We only intended to represent a weak interaction (similar to physical adsorption) of metal with a monomer. We should like to omit this formula in the revised manuscript.

* For example,

G.Wilke , Angew.Chem. 72,581 (1960). 73, 755,756(1961). 74,693(1962).

W.Herwig, H.Zeiss,J.Am.Chem.Soc.,81, 4798(1959).

E.Kurras, Angew.Chem., 72,635(1960).

C.Beerman, K.Clauss, Angew.Chem., 71,627(1959).

M.Tsutsui, H.Zeiss, J.Am.Chem.Soc.,81,6090(1959).

Also refer to ; H.Zeiss , "Organometallic Chemistry " Reinhold Publishing Corp.(1960), 426.

The Authors polymerize butadiene in the presence of the systems $AlEt_3/AlX_3$ (X = Cl, I) acetylacetonate of transition metals. On the basis of the results obtained, they relate the structure of the polymers and the polymerization yield to the particular transition metal contained in the catalyst system.

My remarks are as follows :

1) The results of figs. 1 and 2 are valid only for the particular catalytic systems and experimental conditions by the Authors, but have no general validity. For instance, it is known that catalysts based on Ni can yield not only cis-1,4 polybutadienes (as from figs. 1 and 2), but also crystalline trans-1,4 polybutadienes.[1] Also, catalysts based on Ti can yield not only predominantly cis-1,4 polybutadienes, but also trans-1,4 polybutadienes.[2]

   All these findings must be taken in consideration when discussing the influence of the transition metal on the structure of the polymers.

   It may also observe that the results of figs. 1 and 2 are mostly known in the literature.

2) With regard to the polymer yield, the results from my laboratory do not agree completely with those of figs. 1 and 2. For instance, some catalysts based on V can give as high yield as those obtained with catalysts based on Ni or Co.

   In this case too, in my opinion, the Authors attribute a general validity to data that are valid only under the particular conditions followed by them.

3) It is not proved that "in the reaction with organometallic compounds most transition metal ions are reduced up to zero valent".

Some Authors, e.g. think that in the system $AlEt_2Cl$-Vacetylacetonate, the active species contains trivalent V[3] and that in the system $AlEt_2Cl$-Co compound, the active species contains bivalent Co.[4]

4) A coordination of butadiene to a transition metal, as that represented in formula 1A seems quite improbable.

In conclusion, the stereospecificity in the butadiene polymerization depends on many factors, and undoubtedly the nature of the transition metal is one of these. However, it does not seem to me that the paper examined contributes to clarify what this influence actually is.

Giulio Natta

References

1) L. Porri, G. Natta, M.C. Gallazzi, Chimica e Industria 46, 428 (1964)

2) G. Natta et al., Chimica e Industria 41, 398 (1959)
G. Natta et al., Gazz. Chim. It. 89, 761 (1959)
English Patent 848067 by Phillips Petroleum Co.

3) L. Porri, A. Carbonaro, F. Ciampelli, Die Makromolekulare Chemie 61 (1963) 90
G. Natta et al., Die Makromolekulare Chemie 81 (1965) 161

4) G. Natta et al., Rend. Accademia Naz. Lincei, Ser. VIII, XXIX, 491 (1960
L. Porri, A. Carbonaro, Die Makromolekulare Chemie 60 (1963) 236

Ann -

April 29, 1965

Prof. H. Mark
Polytechnic Institute of Brooklyn
Brooklyn 1, New York

Dear Professor Mark:

I sincerely regret that my state of health does not allow me to participate in the Symposium organized in your honour.

I have been a sincere admirer of your activity in the field of physical chemistry and more precisely of macromolecular chemistry, since when you had devoted your studies to the determination by X-rays of the lattice structure of natural and synthetic high polymers, and to the physical and rheological properties.

The development of macromolecular chemistry, especially in the U.S., is mostly due to your studies.

You have created the research laboratories of the Polytechnic Institute of Brooklyn, where a great number of scientists specialized in macromolecular chemistry have been gathered and guided. These laboratories, thanks to you, have always developed pioneer research and highly contributed to the development of macromolecular industry in the U.S.A.

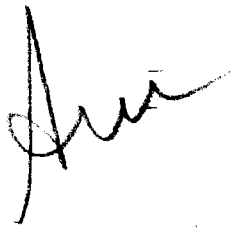
A number of your pupils have acquired outstanding positions both in the scientific and industrial fields.

On the occasion of your 70th birthday I wish to congratulate you on your life of broad-minded scientist and in particular on the contributions you have given to science and to macromolecular industry, and I am sure that you will further contribute to it.

Rosita joins me in sending you heartiest congratulations and sincerest wishes.

G. Natta

Jan.22, 1965



Prof.H.Mark,
Polytechnic Institute of Brooklyn
Brooklyn 1, New York

Dear Professor Mark:

I am delighted to learn that you will receive the Witco Award for Polymer Science at the Symposium organized in your honor. I mostly regret my impossibility to be personally present.

You, more than anybody else, deserve this honor for your outstanding contributions in the field of polymer science and technology.

Since very young, you devoted your life, with passion and ingeniousness, to the most modern fields of physical chemistry, such as X-rays and electron-ray diffraction, and applied them to problems that also interested chemistry.
Already in the twenties, your research works gave fundamental contributions to the study of the structure of crystals. By applying these studies to the macromolecular field, you highly contributed to the knowledge of the crystalline structure of the macromolecules (in particular of cellulose and of rubber), of the relationship between the structure of the monomeric units and their size, and of the identity period of crystals.

Your studies, with those done by Staudinger, were of fundamental importance for the rise and development of macromolecular physical chemistry.

Your research in the macromolecular field did not only concern the crystal structures of solid polymers, but also dealt with different other physical properties of the macromolecules and with important macromolecular syntheses.

After leaving Europe, you have been one of the most outstanding makers of the progress of macromolecular chemistry in the United States: in fact, you established at the Brooklyn Polytechnic Institute the first important research laboratory of macromolecular chemistry of the United States; you formed and directed a great number of pupils, and thus created a School of macromolecular chemistry that can be rightly considered as the most famous and efficient of the United States.

Jan.22, 1965

Beside your outstanding scientific activity, I also wish to remind that you successfully co-operated with a number of renowned U.S. business men in creating the great American macromolecular industry.

Due to your profound theoretical bases and wide knowledge in the field of applications, you certainly are the best-informed scientist in the field in the United States; your activity is widely praised all over the world.

The books you have written are well known and appreciated; the journal you founded (Journal of Polymer Science) is the most important in the macromolecular field.

It is a great luck for me to have known you for more than thirty years. I consider you a master and; together with many other research men all over the world, as one of the scientists who created and developed macromolecular chemistry.

I wish to express you again all my warmest congratulations and kindest personal regards.

Yours,

Giulio Natta

Dec.22, 1964

Dr.P.Weiss, Head Polymers Dept.,
General Motors Corporation,
General Motors Technical Center,
12 Mile and Mound Roads,
Warren, Michigan (U.S.A.)

our ref.870/lv

Dear Doctor Weiss:

Thank you for your kind letter of Dec.11 and for informing me about the Symposium in honor of Prof.Mark.

If my state of health had allowed me, I would have gladly participated in it. Unfortunately, I cannot make long journeys.

Be sure that I shall send you the required letter by Jan.25.

Kindest regards and best season's greetings.

Giulio Natta

icordare

cercare notizie su Mark

chiesto a Danusso 18/1

HERMAN F. MARK SYMPOSIUM

POLYTECHNIC INSTITUTE OF BROOKLYN
POLYMER RESEARCH INSTITUTE
C. G. OVERBERGER, Director
333 JAY STREET, BROOKLYN, N. Y. 11201
Telephone: Area Code 212 643-5470

January 13, 1965

38

Professor Gulio Natta
Polytechnic Institute of Milano
Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Professor Herman Mark will be seventy years old in May of 1965. We are, therefore organizing a special symposium in his honor - to be held at the Polytechnic Institute of Brooklyn on May 27th and 28th, 1965. This Symposium will consist of eleven lectures by persons who have been either students or associates of Herman Mark and who have spent some time at the Polytechnic Institute in Brooklyn. In order to provide for an interesting and useful Symposium, we have decided to limit the number of talks to a total of eleven.

There will also be a banquet on the evening of the 27th, and we have been fortunate in obtaining Dr. W. O. Baker of the Bell Telephone Laboratories as the dinner speaker and Sir Harry W. Melville as Toastmaster.

We would all be very pleased if you could possibly attend the Symposium. I am very much aware that this may not be easy for you. To defray your expenses, we have modest funds available and we would appreciate knowing if you will require our financial assistance.

If you think you might be able to attend we could arrange to have you participate as a Chairman of a session. I shall look forward to hearing from you.

With kindest personal regards,

Sincerely yours,

C. G. Overberger
For the Symposium Committee

CGO:sa

POLYMER RESEARCH INSTITUTE
C. G. OVERBERGER, DIRECTOR

April 8, 1965

Professor G. Natta
Instituto de Chimica Industriale del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

I thank you for your kind letter concerning the visit of Dr. Mario Farina to the States this summer. I will be very pleased to help him. We would, of course, be very happy to have him lecture at the Polytechnic Institute of Brooklyn and will provide him with an honorarium of $100. I would suggest that we plan his proposed lecture for Wednesday, July 21. I can arrange the details with him at the Gordon Conference on Polymers which I also will be attending. I shall also arrange for other lectures on the East Coast and have already written a number of laboratories. You will hear from them directly.

My best personal regards to you and to Rosita.

Sincerely,

C. G. Overberger
Dean of Science
Director-Polymer Research Institute

CGO:mf

Copie a Farina 12/4/65

April 1, 1965

Prof. H. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201

our ref. 184/eg

Dear Professor Mark:

Thank you for your letter of March 15, about Dr. Kaufman.

From his curriculum vitae, I see that he worked on many interesting fields; therefore I will be glad to meet him and to discuss several problems with him.

However, from his letter he seems to be interested also in industrial problems. On this regards, I wish to inform you that, with regard to the works we do for the industry, we bound ourselves to a complete secrecy.

I might introduce him to managers of research laboratories of industries, but I think that they are bound to secrecy as well.

Therefore, I am afraid that we will be of little help to him from this point of view.

I would like to know how long he can stay in Italy: in fact he might possibly visit the laboratories of Prof. Liquori and Corradini in Naples, those of Prof. Pino and Baccaredda at Pisa, and of Prof. Rossi in Genea.

Kindest personal regards.

G. Natta

Ann

mettetela in piccola all'atto della lettera con le nostre osservazioni nel lavoro

June 14, 1965

our ref. N. 290/r1

Prof. C. G. Overberger
Department of Chemistry
Polytechnic Institute of
Brooklyn, New York 11201
333 Jay Street

Dear Professor Overberger,

with regard to your letter of May 13, concerning the reviewed manuscript "Effects of transition metals on the Stereoregular Polymerization of Butadiene" by Matsukaki and Yasukawa, I herewith enclose my remarks on it.

Sincerely yours,

Giulio Natta

Encl/

June 7, 1965

Prof.C.G.Overberger,
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, New York (U.S.A.)

Dear Professor Overberger:

Your very kind cable from the Brooklyn Symposium has deeply moved me. Accept my sincerest thanks for your thought.

Kindest personal regards,

Giulio Natta

April 29, 1965

Prof. C.G. Overberger, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn 1, N.Y. 11201 (U.S.A.)

Dear Professor Overberger:

Mostly regretting not to be able (due to my state of health) to participate in the Symposium in honour of Prof. Mark, I have written a letter to him, a copy of which is herewith enclosed.

Kindest personal regards.

G. Natta

Jan.20, 1965

Prof.C.G.Overberger, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn 1, N.Y. 11201 (U.S.A.)

our ref.38/lv

Dear Professor Overberger:

Thank you for your kind letter of Jan.13 and for the news you give me about the Symposium in honor of Professor Mark for his 70th birthday.

I sincerely regret that my state of health does not allow me to come and participate in it.
I am sure that the Symposium will be very interesting, since among the pupils and co-workers of Prof.Mark there are men of great worth, who have made very important works.
I intend, before the Symposium, to write to Prof.Mark directly. However, if you see him before, please say him my kindest regards and my feelings of great friendship.

My wife joins me in sending you and your wife kindest regards.

Giulio Natta

DEPARTMENT OF CHEMISTRY

March 24, 1965

Professor G. Natta
Direttore Dell'Istituto de
Chemica Industriale
Del R Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Sir:

We are enclosing with this letter a manuscript (author and title given below) which has been submitted for publication in the JOURNAL OF POLYMER SCIENCE, Part B - Polymer Letters.

We would appreciate receiving your comments on this manuscript and your opinion regarding its suitability for publication in the JOURNAL OF POLYMER SCIENCE. Since we are trying to hold the interval between submission and publication dates down to a minimum, I should be very grateful if you could kindly return this manuscript, together with two copies of your comments (one unsigned), to me within the next three weeks. A self-addressed stamped envelope is also enclosed for your convenience.

entro 15/4 in America

AUTHOR (S): K. Matsusaki, T. Yasukawa

TITLE: Effects of Transition Metals on the Stereoregular Polymerization of Butadiene

Very sincerely yours,

C. G. Overberger
M.W.

Editor
C. G. Overberger

fatta fotocopia del manoscritto - data a Porri 2/4/65

Enclosures

CHARLES G. OVERBERGER
DEAN OF SCIENCE
DIRECTOR, POLYMER RESEARCH INSTITUTE

January 22, 1965

Prof. Dr. G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, I T A L I A

72

Dear Professor Natta:

Thank you very much for your letter of January 19, concerning our program on HIGH RESOLUTION NMR SPECTROSCOPY OF POLYMERS - to be held on Saturday - January 23.

We regret that none of your group can be present. Ordinarily we do not require manuscripts for these symposia, but perhaps some of the speakers may have some written material.

I am sending a copy of your letter and my letter to Dr. F. A. Bovey, Chairman of the Conference, and he will be able to tell you whether any manuscripts will be available.

With kindest personal regards,

Sincerely,

C. G. Overberger

Dean of Science
Director--Polymer Research Institute

cgo-h

CC - Dr. F. A. Bovey

POLYMER RESEARCH INSTITUTE
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS. 01003

RICHARD S. STEIN
Director

Office: Room 167
Goessmann Laboratory
Phone 413 545-2615

September 3, 1965

Professor Giulio Natta
Institute di Chimica Industriale
del Politechnco
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you very much for your letter of August 26 concerning Dr. Ronald Sheldon. Your letter of recommendation will be of great help to us.

Sincerely yours,

Richard S. Stein

Richard S. Stein
Commonwealth Professor
of Chemistry

RSS:ly

copie a Porri
14/9/65

Ave

April 26, 1965

Prof.C.G.Overberger
Dean of Science
Director, Polymer Research Insti
Polytechnic Institute of
Brooklyn,
333 Jay street,
Brooklyn, New York 11201 (U.S.A.

our ref.249/lv

Dear Professor Overberger:

Thank you very much for your kind letter of April 16. Monday, June 28, seems a suitable day for the visit of Dr.Farina to the Brooklyn Polytechnic Institute. However, Dr.Farina will write to you directly about the details of his visit.

Thanking you very much for your kindness on behalf of Dr.Farina, I send you kindest personal regards.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201

CHARLES G. OVERBERGER
DEAN OF SCIENCE
DIRECTOR, POLYMER RESEARCH INSTITUTE

April 16, 1965

249

Dr. G. Natta
Instituto de Chimica Industriale del Politecnico
Piazza Leonard da Vinci, 32
Milano, I T A L I A

Dear Professor Natta:

Thank you for your kind letter of April 12, concerning a possible change in date for the visit of Dr. Mario Farina. I am wondering if Monday - June 28 - would be a suitable day.

If I do not hear to the contrary, we will plan on that date instead of the earlier one of July 21, as you suggested initially.

With kindest regards,

Sincerely,

C. G. Overberger
Dean of Science
Director--Polymer Research Institute

cgo-h
airmail

April 12, 1965

Prof.C.G.Overberger, Director
Polymer Research Institute,
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn , New York 11201 (U.S.A.

our ref.230/lv

Dear Professor Overberger:

Thank you very much indeed for the kind interest you took concerning my assistant, dr.Mario Farina.

In my opinion and if possible, it would be more convenient to anticipate the date you chose for his visit to the Polytechnic Institute of Brooklyn. In fact, I would like that dr.Farina might be back to Italy for the summer session of examinations, i.e. not later than July 12-14. Therefore, the most suitable date would be toward the end of June, before the Gordon Conference.

Thanking you very much again, I send you and your wife also from Rosita, kindest regards.

Giulio Natta

April 6, 1965

Prof. C.G. Overberger
Polytechnic Institute of Brookly
333 Jay Street
Brooklyn, New York 11201

our ref. 203/eg

Dear Professor Overberger:

This is in reply of your letter of March 24, asking for a comment on the paper: "Effects of Transition Metals on the Stereoregular Polymerization of Butadiene", by K. Matsusaki and T. Yasukawa.

On the basis of our experience in the field of the polymerization of diolefins, I give you my opinion on the paper quoted above.

Kindest personal regards.

G. Natta

Encl/3

The Authors polymerize butadiene in the presence of the systems $AlEt_3/AlX_3$ (X = Cl, I) acetylacetonate of transition metals. On the basis of the results obtained, they relate the structure of the polymers and the polymerization yield to the particular transition metal contained in the catalyst system.

My remarks are as follows :

1) The results of figs. 1 and 2 are valid only for the particular catalytic systems and experimental conditions by the Authors, but have no general validity. For instance, it is known that catalysts based on Ni can yield not only cis-1,4 polybutadienes (as from figs. 1 and 2), but also crystalline trans-1,4 polybutadienes.[1] Also, catalysts based on Ni can yield not only predominantly cis-1,4 polybutadienes, but also trans-1,4 polybutadienes.[2]
All these findings must be taken in consideration when discussing the influence of the transition metal on the structure of the polymers.
It may also observe that the results of figs.1 and 2 are mostly known in the literature.

2) With regard to the polymer yield, the results from my laboratory do not agree completely with those of figs. 1 and 2. For instance, some catalysts based on V can give as high yield as those obtained with catalysts based on Ni or Co.
In this case too, in my opinion, the Authors attribute a general validity to data that are valid only under the particular conditions followed by them.

3) It is not proved that "in the reaction with organometallic compounds most transition metal ions are reduced up to zero valent".

Some Authors, e.g. think that in the system $AlEt_2Cl$-Vacetylacetonate, the active species contains trivalent V[3] and that in the system $AlEt_2Cl$-Co compound, the active species contains bivalent Co.[4]

4) A coordination of butadiene to a transition metal, as that represented in formula 1A seems quite improbable.

In conclusion, the stereospecificity in the butadiene polymerization depends on many factors, and undoubtedly the nature of the transition metal is one of these. However, it does not seem to me that the paper examined contributes to clarify what this influence actually is.

References

1) L. Porri, G. Natta, M.C. Gallazzi, Chimica e Industria 46, 428 (1964)

2) G. Natta et al., Chimica e Industria 41, 398 (1959)
G. Natta et al., Gazz. Chim. It. 89, 761 (1959)
English Patent 848067 by Phillips Petroleum Co.

3) L. Porri, A. Carbonaro, F. Ciampelli, Die Makromolekulare Chemie 61 (1963) 90
G. Natta et al., Die Makromolekulare Chemie 81 (1965) 161

4) G. Natta et al., Rend. Accademia Naz. Lincei, Ser. VIII, XXIX, 491 (196
L. Porri, A. Carbonaro, Die Makromolekulare Chemie 60 (1963) 236

POLYMER RESEARCH INSTITUTE
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS. 01003

RICHARD S. STEIN
Director

Office: Room 167
Goessmann Laboratory
Phone 413 545-2615

August 5, 1965

Porri

Professor G. Natta
University of Milan
Milan, Italy

Dear Professor Natta:

We have been approached by Dr. Ronald A. Sheldon in regard to his interest in a teaching and research position at the University of Massachusetts. He has indicated that he has taken graduate work in polymer chemistry under your direction at Milan. I would appreciate your writing me and giving your appraisal of his qualifications for research and teaching in polymer science. Thank you very much for your help.

With best regards.

Sincerely yours,

Richard S. Stein

Richard S. Stein
Commonwealth Professor
of Chemistry

RSS:ly

cc: Dr. J. Eldridge, Head
Department of Chemical Engineering

HOTEL FRANCIA EUROPA
CORSO VITT. EMANUELE 9
708.301 (5 LINEE) FRANCIAOTEL-MILANO
MILANO

Fred Rossini

July 20, 1965

Prof. Guilio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano.

Dear Professor Natta:

Many thanks for your note of June 22. Unfortunately our actual stay in Milano was reduced to about one full day, which I used to show my wife some of the sights of the city. I hope that I may be able to visit your laboratories on another occasion.

With best personal regards, I am

Sincerely,

Frederick D Rossini

University of Notre Dame
College of Science
Notre Dame, Indiana 46556

Office of the Dean

Telephone: 284-6375
Area 219

June 18, 1965

Professor Guilio Natta,
Instituto di Chimica Industriale de Politecnico
Piazza Leonardo da Vinci 32
Milano
ITALY

Dear Professor Natta:

Mrs. Rossini and I will be in Milano next month, on July 19 and 20, 1965. Should you or your Deputy be available, I would appreciate having the opportunity of visiting your laboratories.

With best personal regards, I am

Sincerely,

Frederick D. Rossini
Dean of the College of Science

FDR:mik

Ci ha dato a vedere
ne con non gem
io lei. Il 15 a Roma

PRINCETON UNIVERSITY
DEPARTMENT OF CHEMISTRY
PRINCETON, NEW JERSEY 08540

Frick Chemical Laboratory

November 1, 1965

Professor Giulio Natta
Instituto de Chimica Industriale del Politecnico
Piazza Leonardo de Vinci, 32 - Milano

Dear Professor Natta:

Thank you very much for your letter of recent date expressing interest in a talk I gave recently at the New York Academy of Sciences on "Diamond-Like Molecules." Unfortunately, I have no copies of this talk available for it summarized our recent researches in the area of adamantane and congressane chemistry. Under separate cover I have sent you reprints of our recent articles in this area including a review of adamantane chemistry.

Thank you for your interest.

Sincerely yours,

Paul von R. Schleyer

PRS/mo

212

March 31, 1965

Prof. G.C. Overberger
Polytechnic Institute
333 Jay Street
Brooklyn 1, New York (USA)

Dear Professor Overberger:

Next June, one of my assistant, Dr. Mario FARINA, you already met, will come to the States, to participate in a Conference on Stereochemistry and in the Gordon Conference on Polymers. I think it very useful for him to visit a certain number of research laboratories in Universities or industries, to increase his knowledge and experience.

Therefore, I ask you whether he can visit the laboratories of the Polytechnic Institute of Brooklyn and ofother Universities on the Atlantic Coast.

His interests essentially concern : organic and macromolecular stereochemistry, polymerization processes and inclusion compounds.

You will probably know that at My Institute a new host molecule has been obtained, allowing the inclusion of macromolecular compounds; it shows very interesting properties.

I would be particularly grateful to you, if you may arrange that he delivers a few lectures, to meet his travel and living expenses. He might speak on : "Some Stereochemical Problems in Makromolecular Chemistry" dealing with some aspects of the polymerization mechanisms and of the structure of polymers, with particular reference to the possibility to obtain asymmetric structures.
-"A New Class of Inclusion Compounds", dealing with the preparation and properties of these compounds with low- and high-molecular- weight substances.

The U.S.A. schedule of Dr. Farina is the following : June 10-19: University of Notre Dame (Indiana); July 4-9 in New London (N.H.). Thus he could come to New York from June 20 and July 3.

Kindest personal regards. to you and to your wife also from Rosita.

G. Natta

January 19, 1965

Prof. C.G. Overberger, Director
Polymer Research Institute
Polytechnic Institute of Brookl
333, Jay Street
Brooklyn, New York 11201 (USA)

our ref.48/eg

Dear Professor Overberger:

I have received the program concerning the symposium on "High Resolution NMR Spectroscopy of Polymer" to be held on Saturday, January 23, 1965.

I regret very much that neither myself nor any co-worker of mine can participate.

I would very much appreciate, however, either your sending me the reprints of the works as soon as possible, or your letting me know where and when these works will be published.

Thanking you in advance, I send you kindest regards.

G. Natta

Aug.26, 1965

Dr.Richard S.Stein,
Director
Room 167
Goessmann Laboratory
Polymer Research Institute,
University of Massachusetts
Amherst, Mass.01003 (U.S.A.)

our ref.482/lv

confidential

Dear Professor Stein:

Dr.Ronald A.Shelden developed research work at my Institute from October 1959 to August 1960, as holder of a Montecatini fellowship.

His research concerned the kinetics of the polymerization of butadiene to syndiotactic-1,2 polymer.

Dr.Shelden showed a considerable preparation and a quick intelligence. He can certainly give a positive contribution to a research program in the field of polymers, and, in my opinion, is qualified to start the academic career.

Kind regards,

Giulio Natta

SOCIETY OF PLASTICS ENGINEERS, INC.

Office of Chairman
International Award Committee

Reply to:
Jules W. Lindau III
Southern Plastics Company
P. O. Box 815
Columbia, South Carolina

632

November 19, 1965

Dr. Guilio Natta
Instituto de Chimica Industrial del Politenico
Piazza Leonardo de Vinci, 32
Milano, ITALY

Dear Dr. Natta:

Attached is the complete file of selections from the Members of our Committee. I am sure you will recognize the reasons for my not casting a ballot. After all, one can be exceedingly humble as well as exceedingly arrogant.

The National Office of SPE has been notified that I am requesting each of you make your selection from the three (3) names that will be forwarded to you on an additional ballot. It would be of great assistance to have these ballots marked and returned as promptly as possible.

I am sure there is no need for me to express my sincere appreciation for the time as well as thoughtfulness that you have given to this activity. I do look forward to being with you at the earliest opportunity.

Sincerely,

J. W. Lindau III

J. W. Lindau III

JWL:gh

cc: Mr. R. D. Forger

For Vecchiello

SOCIETY OF PLASTICS ENGINEERS, INC.

Office of Chairman
International Award Committee

Reply to:
Jules W. Lindau III
Southern Plastics Company
P.O. Box 815
Columbia, South Carolina

September 17, 1965

Dr. Guilio Natta
INSTITUTO de CHIMICA INDUSTRIAL del POLITENICO
Piazza Leonardo de Vinci, 32
Milano, ITALY

Dear Dr. Natta:

I have heard from the Executive Office of the Society of Plastics Engineers that the list of Nominees for the 1966 International Award has been compiled by the Canvassing Committee. The list of Nominees is to be forwarded directly to you from the Executive Office. I am sure that the citations necessary for assistance in arriving at your selection for the award will be included with the list.

It is to be hoped that a selection can be made on the first ballot. In the event of ties or the failure of any individual to obtain a clear majority of the votes, additional ballots will be requested on which only the three top names would be included. Please be sure to list your selections in order of preference. I do hope there may be the opportunity of our meeting prior to the Annual Technical Conference but, in the event this is not possible, it is my sincere hope that we may be together at that time. Your promptness in making a selection will be sincerely appreciated.

Cordially,

J. W. Lindau III

JWL:gh

cc: Mr. R. D. Forger

cc: Mr. Jack G. Fuller

SOCIETY OF PLASTICS ENGINEERS, INC.

Office of Chairman
International Award Committee

Reply to:
Jules W. Lindau III
Southern Plastics Company
P. O. Box 815
Columbia, South Carolina 29202

- 4 OCT 1965

September 27, 1965

Mr. Jack G. Fuller
Polymer Machinery Corporation
1456 Wilbur Cross Parkway
Berlin, Conn.

Dear Jack:

Your letter of September 24th comes as a most flattering surprise. I felt certain that you would consider the suggestion that I made as one that would be acceptable.

All I can say is that I sincerely appreciate the very distinct honor that you and your Committee has given to me by including my name among the Nominees for this year's award. I do agree that the distinguished members of the Award Committee are men of intelligence and integrity. It is without doubt that they will select the individual whom they feel is most worthy of this tremendous honor. The five (5) other names certainly are most worthy of receiving the Award. I am hopeful that one of them receives a clear and distinct majority on the first ballot.

Sincerely,

Jules

J. W. Lindau III

JWL:gh

cc: Mr. George P. Kovach

cc: Mr. Robert D. Forger

cc: All Members International Award Committee

SOCIETY OF PLASTICS ENGINEERS, INC.
EXECUTIVE OFFICE
65 PROSPECT STREET, STAMFORD, CONNECTICUT
348-7528 AREA CODE 203

September 22, 1965

To: Members of the SPE International Award Committee

INTERNATIONAL AWARD BALLOT

To facilitate balloting on the 1966 SPE International Award in Plastics Science and Engineering, Mr. Jules Lindau, Chairman of the International Award Committee, has requested that we send the award ballot and complete citations on each nominee directly to all members of the Committee.

Enclosed is this material including the complete citations on each of six candidates compiled and submitted by the International Award Canvassing Committee comprised of nine SPE Past Presidents.

Please note that, for the first time this year, we have joint nominees in Messrs. DeBell and Richardson. For balloting purposes, these two nominees should be considered as a single entity.

Please complete your ballot and forward it to Mr. Lindau in the enclosed envelope just as soon as possible.

R. D. Forger

R. D. FORGER - DIRECTOR OF MEMBER ACTIVITIES

encl.

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

COLLEGE OF ENGINEERING
DEPARTMENT OF CHEMICAL ENGINEERING
209 Roadhouse Hall

DAVIS, CALIFORNIA

Ann (Smith)

August 23, 1965

Professor Giulio Natta
Istituto di Chimica Industriale
Polytecnico di Milano
Milano, Italy

Dear Professor Natta:

I have now returned to the United States following several months in Europe. One of the highlights of this trip was my visit to Italy and I particularly enjoyed the days spent at Milan. It was a pleasure to be able to talk before your students and guests.

I hope that your health permits you to do the work that you wish to. With best wishes,

Sincerely yours,

J. M. Smith
Chairman

JMS/d

June 22, 1965

Prof. Frederick D. Rossini,
Dean of the College of Science,
University of Notre Dame,
Notre Dame (Indiana) 46556

our ref. 385/lv

Dear Professor Rossini:

This is in reply to your kind letter of June 18, 1965. I shall be very glad to meet you on July 19 or 20, if I am in Milan on that period. As a matter of fact, I expect I shall be in Rome in the middle of July.

In case I am absent, my co-workers will be very pleased to welcome you here and show you our laboratories.

Kindest personal regards.

Giulio Natta

Nov.9, 1965

Dr.Paul von R.Schleyer,
Frick Chemical Laboratory
Princeton University
Dept.of Chemistry
Princeton, N.J. 08540 (USA)

Dear doctor Schleyer:

Thank you very much for your letter of Nov.1 and for kindly sending me the reprints of your papers, which I will read with mush interst.

Kindest regards.

Giulio Natta

Oct.25, 1965

Dr.Paul von R. Schleyer,
Dept. of Chemistry,
Princeton University,
Prinneton, N.J. (U.S.A.)

Dear doctor Schleyer:

I have read in the Monthly program of the New York Academy of Sciences of your communication on "Diamond-Like Molecules".

I would mostly appreciate receiving a reprint of a preprint of your paper.

With my best thanks, accept my kind regards.

Giulio Natta

Feb.17, 1965

To the President
Society of Plastics Engineers,
65 Prospect Street,
Stamford, Conn. 06902 (U.S.A.)

Dear Sir:

Thank you very much for kindly inviting me to participate in the SPE International Award Reception.

It is with much regret that I have to inform you that it will be impossible for me to come and participate in it.

Please, extend my heartiest congratulations to Dr.Turner Alfrey, Jr.

Kindest personal regards.

Giulio Natta

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

COLLEGE OF ENGINEERING
DEPARTMENT OF CHEMICAL ENGINEERING
209 Roadhouse Hall

DAVIS, CALIFORNIA

January 14, 1965

AIRMAIL

47

Professor Giulio Natta
Istituto di Chimica Industriale
Facolta' di Ingegneria
Politecnico di Milano
Milano (italia)

Dear Professor Natta:

The Fulbright Commission in Rome has indicated that you have extended to me an invitation to spend two days at your Institute in connection with my travels to Europe. Thank you very much for this possibility. I look forward to meeting you and to giving lectures at your Institute. The way my schedule is shaping up, it would be most convenient if I was in Milan April 12th and 13th. We would be coming there from the University of Rome and would be arriving on the evening of April 11th. It was indicated that you would like to have me present two lectures on problems pertaining to chemical reactors. This I would be happy to do and would propose as one subject the interaction of chemical and physical processes in the ortho-para hydrogen conversion. This problem and experimental data illustrate the questions of external and internal diffusion combined with reaction in gas-solid catalytic reactors. As the subject of the second lecture might I propose either adsorption and diffusion rates on silica gel or the interaction of chemical and physical processes within catalyst pellets. The first subject introduces one to the potential significance of surface diffusion in catalytic reactions studies. The second subject presents data and concepts of non-isothermal effectiveness factors.

I hope that these subjects might be suitable from your standpoint. Since I will be leaving here on January 28th it is not likely that a reply can reach me in California. From here I go to England until February 15th and on that day will go to Madrid and then to the University of Seville. After February 15th mail can reach me at either of two addresses.

1. c/o Dr. Ramon Bela
   Commission for Educational Exchange Between
   the United States of America and Spain
   Paseo de Calvo
   Sotelo, 20 (Biblioteca Nacional)
   Madrid 1, Spain

2. c/o Professor Rodrigo Cota
   Facultad de Ciencias
   University of Seville
   Seville, Spain

I look forward with pleasure to meeting you and visiting your Institute. Perhaps you may care to write to me in Spain commenting on my plans. I might mention that following the visit at Milan I am scheduled to go to the Politecnic Institute at Turin.

Sincerely yours,

J. M. Smith
Chairman

JMS/d

SOCIETY OF PLASTICS ENGINEERS

Office of Chairman
International Award Committee

Reply to:
Jules W. Lindau III
Southern Plastics Company
P. O. Box 815
Columbia, South Carolina

September 21, 1965

Mr. Jack G. Fuller, Chairman
International Award Canvassing Committee
Polymer Machinery Corporation
1456 Wilbur Cross Parkway
Berlin, Connecticut

Dear Jack:

A copy of your letter to Bob Forger just came to my attention. I would most certainly have changed the letter that was written to each of the members of our International Award Committee before it was mailed, had the copy arrived prior to this time.

It is impossible to express my most sincere pleasure on being honored by your Committee with the inclusion of my name among those nominated for the 1966 Award. I can think of no greater expression of respect and appreciation that could be offered to anyone associated with plastics science and engineering.

In order to avoid embarrassment to our Society and the International Award Committee, I most regretfully request that my name be removed from the list of Nominees for the 1966 Award.

Sincerely,

J. W. Lindau III

JWL:gh

cc: Mr. R D. Forger

cc: Mr. George F. Kovach

cc: All Members International Award Committee
(Dr. Guilio Natta)

COPY

April 5, 1965

Prof.J.M.Smith,
Albergo Commercio
P.za Fontana 5
Milano

Dear Professor Smith:

Prof.Natta apologizes for being absent from Milan to-morrow morning, April 6; in fact, he has to go to the funeral of a colleague in Pavia. However, he will be at the Institute on Wednesday morning.

Your lectures at this Institute have been fixed for April 6 and 7, both at 5 p.m.

To-morrow morning, we shall wait for your call; you should ask for Miss Vaccaroni.

Sincerely yours,

Prof.Natta's secretariat

5.4.1965

Spett.
Rettorato del Politecnico
S e d e

Desideriamo informarVi che il Prof. Joe M. SMITH dell'Università di California terrà presso questo Istituto le seguenti conferenze :

Martedì 6 aprile - ore 17 :	Adsorption and Diffusion of Ethyl Alcohol on Silica Gel
Mercoledì 7 aprile - ore 17 :	Non-Isothermal Effectiveness Factors in Porous Catalysts

Distinti saluti.

Segreteria Prof. G. Natta

March 29, 1965

Prof.J.M.Smith,
Calle Juan Ramon Jimenez 11,
Piso 5 B,
Sevilla (Los Remedios) - Spagna -

Copy t/o Baccredi

Dear Professor Smith:

We would mostly appreciate your sending us, as soon as possible, the exact titles of your two lectures, to enable us to send invitation cards.

Thank you and kind regards.

The secretary to
Prof.Natta

March 12, 1965

Prof.J.M.Smith,
Calle Juan Ramon Jimenez 11,
Piso 5 B
Sevilla (Los Remedios)
- Spagna -

Dear Professor Smith:

We wish to inform you that we made a hotel reservation for you of one room with three beds and bathroom for the nights of April 5 and 6, at the:

Albergo Commercio
Piazza Fontana 5
Milano.

Sincerely yours,

the secretary to
Prof.Natta

Franklin Strauss
570 W. 156 Street
New York 32, N.Y.

Dear Sir:

I am a member of a group of six chemical engineers, at the City College of the City University of New York, who are working on a formaldehyde plant design project, inoder to fullfil the course requirments and obtain our degrees. We are going to use the Monticatini process and use iron oxide , molybdenum oxide catalyst, and we would greatly appreciate any help and information which you could give us about the process ,catalyst, safety features, plant layout, etc. , We reallize that much of the information may be of a secretive nature, and we do not want to infringe on your rights.

SINCERELY YOURS
Franklin Strauss
Franklin Strauss

CORREO AEREO
PAR AVION
VIA AIR MAIL

AÉROGRAMME
AEROGRAMA

ESPAÑA
06,00
CORREOS
VENTA DE SELLOS

CORREO PUBLICO
SEVILLA
9 MAR 65

Prof. Giulio Natta
Istituto di Chimica Industriale
PIAZZA LEONARDO DA VINCI 22
MILANO
ITALIA

SI EN ESTA CARTA SE INCLUYERA CUALQUIER OBJETO, SERIA CURSADA POR VIA ORDINARIA

Nombre y señas del remitente.
Nom et adresse de l'expéditeur.
Sender's name and address:

J.M. Smith
Calle Juan Ramon Jimenez 11, Piso 5B
Sevilla (Los Remedios)
Spain

POSTE ARR. DISTRIBUZIONE
9-10
11-III
1965
MILANO

PRIMER DOBLEZ

SEGUNDO DOBLEZ

(Modelo de utilidad núm. 12.293)

J 162859

Calle Juan Ramon Jimenez 11
Sevilla (Los Remedios) Spain
March 9, 1965

otessor Giulio Natta
..tute of Industrial Chemistry
Milano, Italia

Dear Professor Natta:

Thank you for the letter of March 1, stating that projection facilities would be available for 3¼" x 4" slides.

I would prefer the hotel reservation of one room with three beds and bathroom at about 7570 Lire per night.

We would arrive in Milano, from Pisa or Florence the evening of April 5 and would be at the Hotel in Milano for two nights, April 5 and April 6. As you know, we would try and go to Turin late on April 7.

I look forward to meeting you in Milano. Until April 6, with best wishes,

Sincerely yours,

J. M. Smith

Informarlo che
è stata fissata
camera 3 letti con bagno
notti 5 e 6 Aprile
all' Albergo Commercio Piazza Fontana 5
Milano

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

June 17, 1965

386

Dr. G. Natta
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milano, Italy

9 luglio

Dear Dr. Natta:

I am writing to thank you for your consideration and to inform you that I am planning a visit on the days indicated in my earlier letter. I am looking forward to meeting you and seeing your Institute.

Very truly yours,

Eugene E. van Tamelen

Eugene E. van Tamelen
Professor of Chemistry

STAUFFER CHEMICAL COMPANY
SILICONE DIVISION
ADRIAN, MICHIGAN 49221
TELEPHONE 313-263-5711

Stauffer CHEMICALS

July 14, 1965

REPLY TO:

Silicone R & D

Prof. Dr., Dr. h.c.G. Natta
Instituto di Chimica Industriale
Milano
Piazzo Leonardo da Vinci 32
Italy

Dear Professor Natta:

It has been about three years since I last had correspondence with you, and I hope this letter finds you in the best state of health.

Two years ago, I left W. R. Grace and Co. and joined Stauffer Chemical Co. as the Director of Research and Development for the Silicone Division. In the past year and a half, we have made tremendous progress in research. At the end of last year, we moved into the newly-constructed, fairly-modern, research laboratories of this division. It has taken us almost all this time to get settled at our new location; and all the research programs, which are highly polymer oriented, are now well on the way. I am at present making plans to invite the visitors of well-known reputation from all over the world to visit and give us lectures on the different aspects of monomer and polymer chemistry.

Our research staff, at present, is close to 50-60 people with a fairly high potential for future growth. By the token of this letter, I want to extend an invitation to you to honor us by paying a visit in the near future while visiting the U.S., at your convenience, and acquaint us with the latest developments in the field of polymer chemistry with some kind of emphasis, if possible, on the growth in silicone polymers, organometallics, and inorganic polymers. I am sure, our research group will benefit from your visit.

By the token of this letter, I would like to request if you can send us a 12" x 12" portrait of yourself with your autograph to be used for decoration in our Conference Room. I wish to thank you for the same in anticipation.

I will look forward to hearing from you and also seeing you in the very near future. With best regards to you and your family,

Sincerely,

R. N. Chadha

Dr. R. N. Chadha
Director of Research
and Development

RNC/bls

THE ENCYCLOPEDIA AMERICANA
575 LEXINGTON AVENUE · NEW YORK, N.Y. 10022
Office of the Editor · PLaza 1-3600

312

May 25, 1965

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan,
ITALY

Enclosed is the edited manuscript of your biography of KARL ZIEGLER for the Encyclopedia Americana. We have made a number of changes in style in order to meet the needs of our audience. In the margin of page 1 we have indicated a question we would like you to answer, and on page 2 we have noted the source of added material.

We would appreciate it if you would read the manuscript carefully, note any changes you believe are essential, and then sign the first page of the manuscript in the place indicated. We hope that you will approve our editing and will return the manuscript to us within the next few days so that we can meet our printing schedules.

It has been a genuine pleasure editing your manuscript, and we are confident it will be of great interest to our readers.

Sincerely yours,

Robert L. Hurtgen

Robert L. Hurtgen
Staff Editor

RLH:lm
Encl.

ZIEGLER, Karl

La grande fama che circonda l'opera del Prof. Karl Ziegler nel campo della industria chimica ed in particolare nel campo, delle materie plastiche e petrolchimico (industria chimica che utilizza come materie prime prodotti e sottoprodotti dell'industria petrolifera), è dovuta alle sue ricerche sui composti metallorganici (composti chimici contenenti parti organiche costituite da composti di carbonio e idrogeno, legate a sostanze inorganiche, metalli), che culminarono nella scoperta di un nuovo processo di polimerizzazione dell'etilene a bassa pressione. Tale procedimento ha avuto una grande risonanza nel mondo perchè ha consentito di ottenere altissimi polimeri dell'etilene (materia prima molto economica proveniente dalla lavorazione del petrolio) aventi regolarità di struttura e proprietà meccaniche superiori (per l'impiego come materie plastiche) a quelle dei polietileni precedentemente noti e largamente usati, che venivano ottenuti con altri processi, che richiedevano altissime pressioni (1000-2000 atm) molto perciolose e macchinamolto costosi.

L'opera di Ziegler rappresenta un esempio di ricerca scientifica di base che porta a scoperte importanti sul piano industriale. L'importanza di tali risultati è dimostrata dal fatto che il Prof. Ziegler ha avuto (a metà con Giulio Natta) il Premio Nobel per la Chimica nel 1963.

LIFE - .....

(1) importante Istituto di ricerca finanziato dall'industria del carbon fossile, che è molto sviluppata nella zona. Tale direzione gli ha consentito di dedicarsi maggiormente alla ricerca scientifica perchè non implica l'obbligo di attività didattica di tipo universitario.

(2) Ziegler è persona di alta statura, di carattere cordiale, di vasta e notevole cultura, anche al difuori dei campi di attività professionale.

Contribution to Science

Le sue ricerche più importanti riguardano il campo dei composti metallorganici. Già nella sua tesi di laurea egli si occupò dei composti alcali-organici, campo che sviluppò con l'impiego come catalizzatori dei litio alchili ed estese poi ad altri composti metallorganici, in particolare agli, alluminio alchili.

(3) L'impiego di composti metallorganici come catalizzatori gli ha consentito di ottenere non soltanto nuovi composti chimici non saturi che hanno interesse come intermedi nell'industria chimica organica, ma anche dei prodotti macromolecolari (costituiti da molecole molto grandi) aventi caratteristiche tali da poter essere impiegati come materie plastiche, fibre sintetiche ed elastomeri (gomme elastiche).

(4)E' da tener presente che le gomme sintetiche prima note avevano proprietà elastiche inferiori a quelle della gomma naturale, mandando della stereoregolarità (regolarità di struttura nello spazio) di quest'ultimo prodotto. Tale regolarità è stata raggiunta solo con l'impiego di processi basati sull'uso di catalizzatori tipo Ziegler.

185/

Whitney

Con riferimento alle vostr e lettere del 15.3 æ del 12.4, Vi invio, unito alla presente l'articoletto da voi richiesto sul Prof. Karl Ziegler.

Spero che possa corrispondere ai vostri desiderin ma nel caso che desideraste che certe parti venissero ridotte ed altre completate vi prego di dirmelo.

Saluti.

(3)

Applicò tali composti alla polimerizzazione delle olefine e diolefine, in un;primo tempo con l'ottenimento di oligomeri lineari dell'etilene e di dimeri e trimeri delle alfa olefine, con ottenimento di prodotti molto più puri di quelli ottenibili con processi di polimerizzazione radicalici oppure con quelli cationici tipo Friedel e Crafts.

Le ricerche di Ziegler si estesero anche a nuovi metodi di preparazione di composti metallorganici dell'alluminio, con metodi più semplici ed economici che consentirono successivamente la produzione e l'impiego degli alluminio alchili per scopi industriali. I risultati più importanti e clamorosi furono raggiunti dopo il 1953, con la scoperta di catalizzatori metallorganici contenenti metalli di transizione, che consentirono la sintesi del polietilene a bassa pressione. Tali lavori ebbero una grande risonanza in tutto il;mondo e numerose grandi industrie europee e americane acquistarono delle licenze sui nuovi processi Ziegler che apparivano di grande interesse pratico per l'industria petrolchimica e per quella delle materie plastiche.

(composti metallorganici dell'alluminio)

La rapida diffusione della conoscenza dei catalizzatori Ziegler stimolò un grande sviluppo delle ricerche sul loro impiego nella polimerizzazione di altri monomeri e contribuì alla scoperta dei polimeri stereoregolari delle alfa-olefine e delle diolefine, che presentano interesse scientifico e pratico non inferiore a quello della scoperta del polietilene a bassa pressione.

Nel campo delle diolefine, le ricerche di Ziegler e dei suoi collaboratori portarono alla;sintesi con alte rese di dimeri e trimeri ciclici del butadiene, mentre altri ricercatori impiegarono catalizzatori tipo Ziegler per la produzione delle stesse materie prime di polimeri stereoregolari aventi notevole interesse come gomme sintetiche. (4)

Per le sue ricerche il Prof. Ziegler ricevette, oltre al Premio Nobel per la Chimica ~~nel 1963 (a metà con Giulio~~

~~Natta)~~ numerosi altri riconoscimenti, quali le lauree ad honorem del Politecnico di Hannover, e delle Università di Giessen ed Heidelberg. Gli furono conferite le medaglie (awards) Liebig, Carl Duisberg, Lavoisier, Karl Engler e Siemens. Egli è membro dell'Accademia delle Scienze della Baviera, di Göttingen, di Halle (Saale) e membro onorario della Chemical Society of Japan e della Society of Chemical Industry di Londra. Egli è inoltre Senatore della Società Max-Planck. Sotto la sua guida si sono laureati 130 chimici e 9 dei suoi allievi sono Professori Universitari.

L'opera de Ziegler ha rinnovato la fama che il Max-Planck Institut di Mülheim già aveva raggiunto nel campo della industria chimica per opera del suo precedente direttore, Prof. Fischer, che vi aveva scoperto la sintesi della benzina dal carbone attraverso la ~~reazione~~ produzione catalitica di olefine e paraffine da CO e H_2 ~~(Fischer-Tropsch)~~. Sebbene la sintesi di Fischer e Tropsch avesse avuto un'enorme risonanza nel mondo chimico, ciononondimeno essa era limitata dal punto di vista economico per la sua realizzazione pratica, alle condizioni particolari, autarchiche e militari, che prevalevano in Germania nell'ante-guerra.

I risultati invece delle scoperte di Ziegler si basano non solo sulla novità e l'importanza dei prodotti macromolecolari, ma anche sul fatto che essi sono ottenibili economicamente, in condizioni di completa libertà economica.

THE ENCYCLOPEDIA AMERICANA
575 LEXINGTON AVENUE · NEW YORK, N.Y. 10022
Office of the Editor · PLaza 1-3600

May 10, 1965

Professor Giulio Natta
Instituta di Chimica Industriali
del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

Thank you very much for your article on KARL ZIEGLER. Our editors will begin working on the manuscript shortly, and an edited version of it will be sent to you for your approval as soon as it is ready. In the meantime, we are enclosing your honorarium of $50.

Sincerely yours,

David C. Whitney

David C. Whitney
Editor in Chief

DCW:lm
Encl.

THE ENCYCLOPEDIA AMERICANA
575 LEXINGTON AVENUE · NEW YORK, N.Y. 10022
Office of the Editor · PLaza 1-3600

wondering
encore author to
Zieg Nobel Prize in Chem

April 12, 1965

Professor Giulio Natta
Instituta di Chimica Industriali del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

Enclosed you will find international coupons for your use in mailing the completed manuscript of your article on KARL ZIEGLER to the Encyclopedia Americana.

We hope, Professor Natta, that you will be able to meet the May 1 manuscript deadline.

Sincerely yours,

David C. Whitney
Editor in Chief

DCW:ew
encl.

THE ENCYCLOPEDIA AMERICANA
575 LEXINGTON AVENUE · NEW YORK, N.Y. 10022
Office of the Editor · PLaza 1-3600

22 MAR 1965
185

March 15, 1965

Professor Giulio Natta
Instituta di Chimica Industriali del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

We are planning to include a new biography of Karl Ziegler in a forthcoming edition of the Encyclopedia Americana, and we wish to invite you to prepare the article for us. The distinguished list of authors who have contributed articles to the Encyclopedia Americana include such Nobel Prize winners as Emilio G. Segrè, Severo Ochoa, and Philip J. Noel-Baker.

The new article, as we see it, should be informative and interesting to high school students as well as to adults. It should stress the work that led to Ziegler's winning the Nobel Prize, and also include other aspects of his personal life and career.

The enclosed contributor folder includes a sample biography that is written in the form and style we would like for the Ziegler biography. We have allotted the new article 500 words, or about 72 lines on the enclosed copy paper. A "Profile" of Ziegler will be prepared by the editors of the Encyclopedia Americana and sent to you for approval along with the edited version of your manuscript. In order to meet our production schedules, we would hope to have your finished manuscript by May 1, 1965. ~~The honorarium would be $50.~~

To indicate your acceptance, please fill out and return, by April 1, 1965, the yellow Contributor Card and one of the signed Agreement Cards you will find in the contributor folder. The second Agreement Card is for your own records. We are enclosing international coupons for your use in returning the cards.

We earnestly hope, Professor Natta, that you will find this an interesting assignment, and that you will accept our invitation. Our editors look forward to working with you in preparing this biography for the Encyclopedia Americana--the oldest American encyclopedia.

Sincerely yours,

David C. Whitney
Editor in Chief

DCW:ew
encl.

The United Educators, Inc.

TANGLEY OAKS EDUCATIONAL CENTER • LAKE BLUFF, ILLINOIS 60044 • TEL. CEDAR 4-3700 • CABLE ADDRESS AMEDEN

June 25, 1965

Dr. Guilio Natta
Institute of Technology
Milan, Italy

Dear Dr. Natta:

We are publishers of the American Educator Encyclopedia, used in schools and homes in English-speaking countries throughout the world. We believe that our material must be accurate, should be interesting, and from time to time should be reviewed critically by a person of authority.

Would you please read our presentation of Polymers and Polymerization, making any comments, additions, and deletions which you feel are necessary? We propose an honorarium of $25, which would be increased if extensive revision should prove to be necessary. If you prefer, we would be happy to send to you or to an institution of your choice a 10-volume set of the American Educator Encyclopedia in lieu of the honorarium.

I appreciate that most persons in highly responsible positions are subject to great demands on their time, but your contribution certainly would be of great value to the school children who rely on the information in our books. Hundreds of specialists and scholars, including more than fifty Nobel prize winners, contribute to this encyclopedia.

May I hope to hear your decision in the very near future? Thank you for your courtesy.

Very truly yours,

UNITED EDUCATORS, INC.

Everett Edgar Sentman
Vice President and
Editor in Chief

EES:js
Enc.

Dr. Joe . Smith
c/o [illegible]/Spain
Paseo de Calvo Sotelo, [illegible]
Madrid, 1 (Spain)

December 2[illegible], 1964

Dear Dr. Smith,

This Commission has received invitations for you from the Polytechnic Institutes of Milan and Turin and from the Universities of Rome and Pisa. We shall be pleased and honored to sponsor your visit to Italy, and attach a statement with the details concerning the invitations.

If you accept, please inform us and the Italian sponsors of your visit to Italy. We shall then open a credit with the American Express Company's Agent (Viajes Ibersuiza, Avenida Queipo Llano, 46 - Sevilla) for the equivalent of tourist air round-trip transportation, but you may make with American Express Company's Agent whatever travel arrangements suit you best. If you prefer, we can reimburse you for this travel credit by a check in the lire equivalent when you arrive in Italy. Please note, however, that the check will have to be cashed and used while you are in Italy. Detailed arrangements for your lectures and for hotel reservations should be made directly by you with the sponsoring professors. We shall an revoire hearing from you with regard to your final plans.

Sincerely yours,

Cipriano Sotelo
Executive Director

lc
Encl.:1
cc: Prof. Giulio [illegible]; Prof. Rolando Mignanti; Prof. Eugenio Mariani; Prof. Mario Ma[illegible]reda.
: [illegible] Milan, Turin, Florence

July 26, 1965

dr.R.N.Chadha, Director
Research and Development
Stauffer Chemical Company,
Silicone Division
Adrian, Michigan 49221 (U.S.A.)

our ref.439/lv

Dear doctor Chadha:

Thank you very much for your kind letter of July 14 and for the interesting information you give to me.
I also thank you very much for kindly inviting me to visit Stauffer and to deliver a lecture. Unfortunately, I foresee that it will be very difficult for me to come to U.S. in the near future. However, if the opportunity arises for you to come to Italy, I shall be very pleased to meet you.

Kindest regards.

Giulio Natta

Encl/

March 31, 1965

Mr. Franklin Strauss
570 W. 156 Street
New York 32, N.Y.

our ref. 192/eg

Dear Mr. Strauss:

With regard to your letter, I am sorry not to be able to give you the data required about the Montecatini plant for formaldehyde, since this company wishes to keep them strictly secret.

Kind regards.

G. Natta

STATE UNIVERSITY COLLEGE OF FORESTRY

AT SYRACUSE UNIVERSITY

SYRACUSE 10, NEW YORK

28 December 1965

Professor G. Natta
Istituto Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano
Italy

Dear Professor Natta,

This is a short note to thank you and your wife for the pleasant evening and for your hospitality.

Hoping to see you again, and with best regards,

yours very sincerely,

Michael Szwarc
Research Professor

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY
SYRACUSE 10, NEW YORK

10 December 1965

659

Professor G. Natta
Istituto Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano
ITALY

Dear Professor Natta:

I am enclosing herewith a few reprints which might interest you in connection with the monograph which you are writing. I am enclosing, also, the list of my publications.

With best regards,.

Yours very sincerely,

Michael Szwarc
Research Professor

Merry Christmas and a Happy New Year

a di interesse?

June 8, 1965

Mr.Robert L.Hurtgen,
THE ENCYCLOPEDIA AMERICANA
575 Lexington Avenue, 18th Floor,
New York, New York 10022 (USA-)

our ref.312/iv

Dear Mr.Hurtgen:

Herewith enclosed, I send you the edited manuscript of the biography of Karl Ziegler, which I have checked and slightly corrected. I have also answered your question in the margin of page 1.

Kind personal regards,

Giulio Natta

Encl/

The United Educators, Inc.

TANGLEY OAKS EDUCATIONAL CENTER • LAKE BLUFF, ILLINOIS 60044 • TEL. CEDAR 4-3700 • CABLE ADDRESS AMEDEN

July 29, 1965

Dr. Guilio Natta
Institute of Technology
Milan, Italy

Dear Dr. Natta:

We have received your letter of July 23 with your revision of the American Educator Encyclopedia article on Polymers and Polymerization. Your changes and additions not only make this presentation more current but add to the clarity of the information. Thank you for this service to our readers.

In your letter you did not indicate whether you would prefer an honorarium of twenty-five dollars or a set of the encyclopedia with your revised article sent to you or to an institution of your choice. Please let us know and we shall take care of this at once.

a Verse

Very truly yours,

THE UNITED EDUCATORS, INC.

Everett Edgar Sentman
Vice President and
Editor in Chief

EES:jl

The United Educators, Inc.

TANGLEY OAKS EDUCATIONAL CENTER • LAKE BLUFF, ILLINOIS 60044 • TEL. CEDAR 4-3700 • CABLE ADDRESS AMEDEN

Sen -

September 21, 1965

Dr. Guilio Natta
Institute of Technology
Milan, Italy

Dear Dr. Natta:

We have received your letter of August 27 and are especially delighted that you have decided to accept a set of the American Educator Encyclopedia as honorarium for the revising you did on the presentation of Polymers and Polymerization. We are sure that you will enjoy using this fine reference set, often called America's finest home and school encyclopedia. We are very proud of the American Educator and proud, also, of the fine men and women such as yourself who make the books possible.

When your newly revised article is included we shall have a set shipped to you at your home address.

It has been a pleasure dealing with you and we send our wishes for continued success in your endeavors.

Very truly yours,

THE UNITED EDUCATORS, INC.

Everett Edgar Sentman
Vice President and
Editor in Chief

EES:jl

TIME - LIFE
News Service

ROME BUREAU
VIA SARDEGNA, 14 - ROME, Italy
TEL. 48.18.13
TELEGRAMS: TIMEINC, ROME
TELEX: 61143

28 dicembre, 1965

Gent.mo Prof. Giulio Natta,
Istituto Chimico Industriale,
Politecnico di Milano,
Piazza Leonardo da Vinci, 32.

Gentilissimo Professore Natta,

Mi dispiace molto per lo sbaglio relativo al capitolo sesto del "Giant Molecules" e spero che adesso avra' ricevuto il capitolo giusto.

Era un grande piacere per me di incontrarLa recentemente e spero che la lettura del testo non era troppo laborioso, dato il cattivo stato del manoscritto.

Auguro che sta passando feste felice, con cordiali saluti

Ann L. Natanson
Ann L. Natanson
TIME-LIFE BOOK DIVISION

P.S. La prego di telefonarmi se pensa che potrei essere utile in qualsiasi caso.

Preface

The organic giant molecules (macromolecules) profoundly affect man's activity and life. Protoplasm of cells of all living beings and their nucleus consist of proteic macromolecules; important materials, such as wood, natural rubber and all vegetable and animal textile fibres consist of macromolecules.

However, the structure and relationships between the properties and molecular structure of many natural macromolecules could be determined only a few decades ago.

It was just after the twenties that macromolecular chemistry arose to the dignity of an individual science. Especially thanks to the research started at that time in Germany both in University (Prof.H.Staudinger) and industrial laboratories (with the co-operation of one of the Authors of this book, Prof.H.Mark) it was possible to establish the linear structure regularity of several natural macromolecules as well as their crystallinity; moreover, new organic macromolecules could be synthesized: a great number of them do not exist in nature and are of great importance for their most recent applications as plastics, synthetic fibers and rubbers.

Although such discoveries had been initially made in Europe, the great U.S. industries were among the first that produced certain new synthetic macromolecules and that pointed out their use for special valuable applications, such as synthetic rubbers (chloroprene) and textiles, e.g. nylon.

The research on and the production of synthetic macromolecules has progressed enormously during these last thirty years; their synthesis, initially achieved in Europe, mainly in Germany and in England, before World War II, acquired a considerable importance in the United States when, due to the unexpected occupation of Malaysia and

the Malay Archipelago, the natural rubber supplies were interrupted, with worrying effects also from the military point of view.

This book, written in a very clear style and of good understanding even for non-chemists, provides with an excellent description of the whole historical development, which led to the characterisation of the molecules in general and, subsequently, of macromolecules, as well as to their industrial production.

Synthetic macromolecules affect so deeply our everyday life that, if our Age were denominated by the materials chiefly used by man, as it was done for the Stone and Bronze Ages, it should be called the Age of Plastics.

The synthetic production of giant molecules, which will further develop during the next years, also involves social problems of considerable importance: in fact, the synthetic production of textiles and of rubbers will allow to turn much of the land now used for the production of textile fibers and natural rubber, to the production of food. It will be thus possible to face, partly at least, the food deficiency for the ever increasing population of the world.

Giulio Natta

Milano, Jan.10, 1966

TIME-LIFE BOOKS, TIME & LIFE BUILDING, ROCKEFELLER CENTER, NEW YORK 10020, JUDSON 6-1212

December 2, 1965

Professor Giulio Natta
Direttore Dell'Istituto di Chimica Industriale
Del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

Dr. Herman Mark, who is the author of one of our forthcoming Life Science Library books GIANT MOLECULES, has asked us to invite you to write the introduction. GIANT MOLECULES is the seventeenth book in the Life Science Library, a series which is designed for the general public and covers a wide variety of scientific and technological subjects.

The authors of GIANT MOLECULES are Dr. Mark and Lawrence Sandek, a professional science writer. Their manuscript is now in the process of completion, and we expect to have an edited version of most of it in the next six weeks. If you would like to read an unedited version, we can send it to you now, but please bear in mind that it will be only the roughest draft, and should be evaluated not for quality or clarity but only for the general areas of information that will be taken up.

The introductions to these books are each about 300 words long; the fee in $250. We would like to have the copy for this one in hand by December 27th, if that is possible.

I hope that you will agree to write this introduction. Our Time Incorporated Bureau in Rome will be in touch with you next week to show you some previously published volumes and to see if you would like to read the manuscript.

Sincerely yours,

Martin Mann

Martin Mann
Editor
Life Science Library

MM:bs

Martin Mann
Life Science Library
Time Life Building
Rockfeller Center,
New York 10020 (USA)

referring your letter December 2, please send unedited version urgently. ~~GiuliaxNattax~~ Regards Natta

dettato ore 12.15
10/12/65

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 19029
WASHINGTON, D.C. 20036

ENRICO FERMI AWARD

Aru

January 4, 1965

Dear Sir:

The General Advisory Committee invites you as an individual to submit a nomination for the next Enrico Fermi Award. This Award is made under the provision of Section 157b(3) of the Atomic Energy Act of 1954 which states that, "....The Commission may also, upon the recommendation of the General Advisory Committee, and with the approval of the President, grant an award for any especially meritorious contribution to the development, use, or control of atomic energy".

The first award under this Act was made on November 16, 1954, to Enrico Fermi. In December of 1955 the General Advisory Committee recommended to the Atomic Energy Commission that an Enrico Fermi Award be established on a permanent basis, and that it be international in scope, available to scientists of all nations. The recommendations, together with others pertaining to the Award, were approved by the Commission early in 1956.

The Commission determined that the Award should be made not more often than annually, and not necessarily annually. The recipients of the Award have been Dr. John von Neumann, Dr. Ernest O. Lawrence, Dr. Eugene P. Wigner, Dr. Glenn T. Seaborg, Dr. Hans A. Bethe, Dr. Edward Teller, and Dr. J. R. Oppenheimer. Adm. H. G. Rickover has been selected by the Commission for the Award for 1964.

The General Advisory Committee now has the duty of soliciting nominations for the next Award and of recommending a candidate or candidates to the Commission. The Committee and the Commission wish no worthy candidate to be overlooked. In making a nomination, please place principal emphasis on the statement of scientific and technical achievements upon which the nomination is based. Please minimize such data as can be found in standard reference works.

Nominees who fail of selection are retained on the Committee's list for further consideration for two additional years. If the candidate has not been selected in three consecutive years, his or her name will be removed from the list unless the candidate has been renominated in that time or until renominated.

Nominations for the next Award should be received by the Chairman, General Advisory Committee, U. S. Atomic Energy Commission, P. O. Box 19029, Washington, D. C., not later than March 1, 1965. Your assistance in making nominations will be greatly appreciated.

Sincerely yours,

L R Hafstad

L. R. Hafstad
Chairman

Dr. Giulio Natta
Polytechnic Institute of Milan
Milan, Italy

185/W

April 29, 1965

Mr. David C. Whitney
Editor in Chief
The Encyclopedia Americana
575 Lexington Avenue
New York, N.Y. 10022 (USA)

Dear Mr. Whitney:

With regard to your letters of March 15 and April 12, I send you, herewith enclosed, the required biography of Prof. Karl ZIEGLER.

I hope it may conform with your desires; however, please let me know if some parts must be reduced or completed.

Kindest personal regards.

G. Natta

May 14, 1965

Mr. David C. Whitney
Editor in Chief
The Encyclopedia Americana
575 Lexington Avenue
New York, N.Y. 10022 (USA)

Dear Mr. Whitney:

I wish to thank you very much for kindly sending me the check in the amount of $ 50 for my article on Karl ZIEGLER.

Waiting for the edited version of it, I send you kindest personal regards.

G. Natta

August 27, 1965

Dr. Everett Edgard Sentman
The United Educators, Inc.
Tangley Oaks Educational Center
Lake Bluff, Illinois 60044

our ref. 473/eg

Dear Dr. Sentman:

This is in reply to your letter of July 29, 1965.

Instead of a honorarium of 25 $, I would like to receive a set of the American Educator Encyclopedia at my home address :

Prof. Giulio Natta
Via Mario Pagano 54
Milano

Thanking you very much, I send my kind personal regards.

G. Natta

April 13, 1965

Prof.Eugene E.van Tamelen,
Dept.of Chemistry,
Stanford University,
Stanford, California (U.S.A.)

our ref.232/lv

Dear Professor van Tamelen:

In reply to your letter of April 8, I am glad to inform you that you can come and visit my Institute on July 9. If by chance I am absent, you will meet some of my co-workers.

Sincerely yours,

Giulio Natta

STANFORD UNIVERSITY
STANFORD, CALIFORNIA 94305

DEPARTMENT OF CHEMISTRY

April 8, 1965

Dr. G. Natta
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Milano, Italy

Dear Dr. Natta:

At the beginning of the summer my family and I will be touring central Europe, and I would like very much to visit your place on this occasion. The present plan would be to spend July 9 in your area. I would appreciate knowing, at your earliest convenience, whether you or some of your colleagues would be available during the above period.

Very truly yours,

Eugene van Tamelen

Eugene E. van Tamelen
Professor of Chemistry

USA

1966

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, In

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

November 3, 1966

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of October 25, 1966 concerning your paper dealing with reinforcement of resins by grafted EPR.

In accordance with your suggestion I will modify the legends and figures to conform to the Italian text and make this correction in page proof of the next issue of Rubber Chemistry and Technology.

With regards.

Yours very truly,

E. M. Bevilacqua

EMB:dlw

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

Preparare e [illegible] dati elementari in cui inserito Rhenium

551

October 20, 1966

AIR MAIL

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of October 14 concerning your paper dealing with reinforcement of plastic with styrene grafted polymers.

I am sorry that you found errors in the illustrations. Often when original figures are of such quality that it is necessary to redraw them, it is difficult to be sure that everything the author intended appears in the final illustration. We will hold the type on this article until we hear further from you.

It is urgent that we know since this issue is to go to press shortly.

I would suggest that we simply eliminate the figures entirely as they exactly duplicate material in the tables. Rubber Chemistry and Technology is a non-profit journal which operates with a very tight limitation on space and we endeavor as much as possible to avoid wasting space by unnecessary duplication. This, of course, accounts for the fact that the material which appeared as two tables in the original was combined into one in the text version.

If you should prefer that the figures be retained, we will make the simple alterations to the figure legends which will make them conform with the text.

With regards.

Yours very truly,

E. M. Bevilacqua

E. M. Bevilacqua

EMB:dlw

SCIENCE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
1515 MASSACHUSETTS AVENUE, NW, WASHINGTON, D.C. 20005 • 387-7171

18 October 1966

Dr. Giulio Natta
Industrial Chemistry Center
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

Many thanks for your reply to my request for suggestions of possible authors for Science. It is obvious that you have given a good deal of thought and effort to this matter, and I appreciate your assistance.

I have written to Professors Piero Pino and Paolo Corradini asking each of them to prepare an article.

Sincerely,

Philip H. Abelson
Editor

PHA/yls

SCIENCE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
1515 MASSACHUSETTS AVENUE, NW, WASHINGTON, D.C. 20005 • 387-7171

Ricerchersi Farine Canadian Fiber? fund

29 June 1966

quiet answ no

388

Dr. Giulio Natta
Industrial Chemistry Center
Polytechnic Institute of Milan
Milan, ITALY

Dear Dr. Natta:

Some time ago you contributed an article for Science. I hope that you were pleased with the attention that your article commanded.

Today Science has even more readers than when your article appeared. The magazine has a circulation of 125,000. Included in this number are an increasing group from other than in the United States. In many countries Science reaches more readers than does Nature. Results of a survey of our foreign distribution are enclosed.

We hope that scientists in foreign countries are aware that their manuscripts are welcomed by Science. It is true that their articles will be subject (as are U.S. manuscripts) to a rigorous selection process involving reviewers. However, we feel that almost all scientists approve of efforts to maintain standards.

In the light of the above consideration I am writing to ask you for suggestions of possible topics and authors for lead articles for Science. (We would very much appreciate your supplying complete names and addresses for your suggestions.) I hope that I may have the benefit of your cooperation and wisdom.

Sincerely,

Philip H. Abelson

Philip H. Abelson
Editor

PHA.gml
Enclosure

CYANAMID

AMERICAN CYANAMID COMPANY
STAMFORD RESEARCH LABORATORIES
1937 WEST MAIN STREET, STAMFORD, CONN. 06904
AREA CODE 203 348-7331

May 24, 1965

Professor Giulio Natta
Instituto di Chimica industriale del Politecnico
Milano, ITALY

Dear Professor Natta:

I am writing a book on polymer chemistry entitled An Introduction to Polymer Structure, and would like to include Figure 1 from your paper in Chim e ind. (Milano), 41, 116 (1959) and Figure 14 in Rubber Chem. and Technol., 33, 703 (1960). May I have your permission to reproduce these Figures? Thank you in advance for your courtesy in this matter.

Very truly yours,

M. L. Miller

M. L. Miller, Research Fellow
Exploratory Research Department

AFHU

AMERICAN FRIENDS OF THE HEBREW UNIVERSITY

11 EAST SIXTY-NINTH STREET, NEW YORK, N. Y. 10021

SAMUEL ROTHBERG
CHAIRMAN OF THE BOARD

June 28, 1965

Dear Mr. Natta:

I am very happy to advise you that the American Friends of the Hebrew University has chosen Dr. Albert B. Sabin to receive its highest distinction, the Scopus Award. This is only the fifth time since the establishment of the Hebrew University in Jerusalem forty years ago, that this Award will be given. The presentation will be made at a dinner in Dr. Sabin's honor at the New York Hilton Hotel on November 21st, 1965.

As one who is especially aware of Dr. Sabin's development of the live virus anti-polio vaccine and his many other contributions to society, I know you will want to join the national committee being formed for this tribute. We want to list you among the many distinguished figures in our national community in this tribute to a man whose name will always be linked with the prevention of crippling diseases and the saving of countless young lives.

I look forward to your acceptance. Your early reply will be very much appreciated.

Sincerely yours,

Samuel Rothberg

Mr. Giulio Natta
54 Via Mario Pagano
Milan, Italy

W. C. ASBURY
330 W. JERSEY STREET
APT. 8E
ELIZABETH, NEW JERSEY

Jan. 3,1966

Dear Professor Natta,

I greatly appreciated your kind letter on the occasion of my retirement. I always enjoyed my visits with you and your charming wife.

I hope that the New Year will bring you better health and much happiness. I am sure that your active mind will find new technical problems to solve in the years ahead.

I am visiting my son in California and enjoying some sunshine.

Best regards to you and your wife.

Sincerely,

W. C. Asbury

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL, NEW JERSEY 07971
TELEPHONE
AREA CODE 201
582-3000

AIR MAIL

February 24, 1965

PROFESSOR G. NATTA
Instituto de Chimica
Industriale del Politecnico
Leonardo da Vinci 32
Milan,
ITALY

146

Dear Professor Natta:

Several years ago, Dr. Winslow and Dr. Biggs of our laboratories greatly enjoyed a visit to your institute. I am planning to visit a number of European laboratories in April, and wondered if I might have an opportunity also to visit you, at that time. As you may know, the Bell Telephone Laboratories has a substantial polymer research program, and we have therefore been much interested in following your work.

Perfetto!

Giovedì santo

I plan to visit Messrs. Orsoni and Crespi, at Montecatini, on Thursday, April 15. If it would be convenient, perhaps I could divide the day, visiting them in the morning and your institute in the afternoon. I would appreciate it greatly if you could let me know whether such a visit would be agreeable and convenient.

Sincerely yours,

NBHannay

N. B. HANNAY
Chemical Director

MH-112-NBH-cl

BELL TELEPHONE LABORATORIES
INCORPORATED
MURRAY HILL, NEW JERSEY 07971
TELEPHONE
AREA CODE 201
582-3000

AIR MAIL

January 27, 1965

PROF. G. NATTA
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan
ITALY

81

Dear Prof. Natta:

Thank you for your letter of January 19 requesting information concerning our work on NMR studies of the mechanism of vinyl polymerization. I enclose a reprint (J. Am. Chem. Soc. 86 4481 (1964)) describing the initial phases of this work, which is being carried out in collaboration with Prof. Conrad Schuerch and his students at Syracuse University. We now have a number of additional results using $LiAlH_4$, n-butyllithium, and free radical initiators, but these are not yet ready for publication. It is noteworthy that the ratio of cis to trans addition appears to vary markedly even with seemingly closely related initiators. For instance, $LiAlH_4$ gives predominantly trans addition (see also Yoshino et al., J. Am. Chem. Soc. 86 4482 (1964)) while n-butyllithium gives predominantly cis addition, both in toluene at - 78°; presumably the controlling gegen-ion is Li^+ in both cases, so this clearly raises some questions as to our present understanding of these systems.

A few days ago, Dr. G. Zerbi visited us here, and was kind enough to invite me to your institute following the IUPAC Macromolecular Chemistry Symposium in Prague. I look forward to seeing you at that time, and will let you know in more detail concerning my travel plans at a later date.

With kindest regards, I am

Very truly yours,

Frank A. Bovey

FRANK A. BOVEY

MH-1124-FAB-JS

Bjorksten RESEARCH LABORATORIES, INC.

LARCHMONT, NEW YORK • HOUSTON, TEXAS • DAYTON, OHIO • WASHINGTON, D. C.

CABLE ADDRESS
"MUTUS, MADISON"

POST OFFICE BOX 265
MADISON, WISCONSIN 53701
TELEPHONE: 608: 256 - 5581

February 8, 1966

Professor Giulio Natta
University of Milano
Milano, Italy

Dear Professor Natta:

In a conversation with Mrs. Jane Cutaia, Research Editor of BUSINESS WEEK, I happened to mention that I had just written a review for SCIENCE of a recent book on the use of ultrasonics for medical purposes and that certain applications related to Parkinson's disease had been discussed in this book. She suggested that I mail to you my reviewer's copy of the book, which I am very happy to do at this time, separately.

You probably do not recall me as we met only briefly at the International Chemical Meeting in Zürich at the time when Professor Ziegler made the first presentation of his work for an international audience and you presented a more purely scientific paper. We both stayed at the Plaza Hotel in Zürich at that time.

Very sincerely yours,

BJORKSTEN RESEARCH LABORATORIES, INC.

Johan Bjorksten
President

JB:ck
Enclosure

cc: Mrs. Jane Cutaia

March 17, 1965

Dr.N.B.Hannay, Chemical Director
Bell Telephone Laboratories,
Murray Hill, New Jersey 07971 (U..S)

our ref.146/lv

Dear Doctor Hannay:

With regard to your letter of Feb.24, I wish to inform you that, if I am in Milan on April 15, I will be very pleased to meet you.

But, even if I am absent, you can come and visit my Institute with one of my co-workers.

Sincerely yours,

Giulio Natta

October 25, 1966

Mr. E.M. Bevilacqua, Editor
RUBBER CHEMISTRY AND TECHNOLOGY
Research Center
Wayne, New Jersey 07470

our ref. 551/eg

Dear Mr. Bevilacqua:

In reply to your letter of October 20 and to your suggestion to eliminate the figures from our text, I wish to point out that it is perhaps simpler to correct the drawings according to the indications reported in the proofs. The elimination of the figures would necessarily involve a further correction of the text. Moreover, fig. 3 of the Italian text, which appeared with inversion of letters in your translation, and the dashed curve of fig. 5 of the Italian text (modulus according to Karner) are not duplicate of tables. Their elimination, therefore, would lead to a loss of information.

On the other hand, due to your urgent need to arrive at a definitive text, I think that after correcting the drawings, you certainly may send the article to press, without sending us their proof for a further check.

Kind regards.

G. Natta

September 9, 1966

Mr. Philip H. Abelson, Editor
Science - American Association
for the Advancement of Science
1515 Massachusetts Avenue, N.W.
Washington, D.C. 20005 - U.S.A.

nur ref. No. 388/rl

Dear Mr. Abelson,

Thank you for your letter of June 29. I regret informing you that, due to previous engagements, I cannot personally contribute articles of the type you require. Therefore I can only propose the names of two my colleagues, who may possibly write articles on the following topics :

1) Synthesis of Optically Active Macromolecules from Hydrocarbon Monomers, Prof. Piero PINO, Director, Istituto di Chimica Organica Industriale - Università, Via Risorgimento 35 - Pisa (Italy)

2) Structure and Crystallinity of Stereoregular Polymers, Prof. Paolo CORRADINI, Istituto Chimico Università, Via Mezzocannone 4, Napoli (Italy)

With kindest regards,

Giulio Natta

June 15, 1965

Dr.M.L.Miller,
Exploratory Research Dept.,
American Cyanamid Company,
Stamford Research Laboratories,
1937 West Main Street,
Stamford, Conn.06904 (U.S.A.)

our ref.325/lv

Dear Doctor Miller:

This is in reply of your letter of May 24. I give you permission to reproduce Fig.1 in Chimica e Industria 41, 116 (1959) and Fig.14 in Rubber Chem.& Technol.33, 703 (1960). Since the latter figure had been originally published in Nuovo Cimento, Suppl.15 (10) 9 (1960), I would mostly appreciate your quoting this article.

Sincerely yours,

Giulio Natta

351

Zedi 18.6.65

Ave -

July 8, 1965

Mr. Samuel Rothberg
Chairman of the Board
American Friends of the Hebrew Univ.
11 East Sixty-Ninth Street
New York - N.Y. 10021 - USA

our ref. 420/rl

Dear Mr. Rothberg,

Thank you very much for your kind letter of June 28.

I highly appreciate the very important contribution of Dr. Sabin to society and I am very glad that he has been chosen for the Scopus Award.

Though I do not belong to your national community, I feel honored by your proposal. I mostly regret that my personal participation in the dinner in Dr. Sabin's honor next November will not be possible.

Kind regards.

Giulio Natta

HARVARD MEDICAL SCHOOL
DEPARTMENT OF BIOLOGICAL CHEMISTRY

E. R. BLOUT
EDWARD S. HARKNESS PROFESSOR
OF BIOLOGICAL CHEMISTRY

BOSTON
MASSACHUSETTS 02115

June 14, 1966

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italia

Dear Professor Natta:

Thank you for your letter of May 23, 1966. If you have a candidate whom you can recommend for a postdoctoral position in our laboratory for 1967-1968, please send me details of his training, research experience, and fields of interest as soon as convenient. I would also appreciate receiving from you a personal evaluation of the man.

As you know, we are interested in both the synthesis and physical-chemical properties of peptides and polypeptides, especially those whose structures relate to proteins. Recently, much of our interest has been directed towards the synthesis of peptides with predetermined amino acid sequences.

I look forward to hearing from you. With kind regards.

Yours sincerely,

E. R. Blout

E. R. Blout

ERB:ad

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

383

July 5, 1966

Professor Giulio Natta
Instituto di Chimica Industriale del Politecnico
Centro Nazionale di Chimica delle Macromolecole
del C.N.R.
Milano, Italy

Dear Professor Natta:

Enclosed herewith is a copy of an English translation of your paper "NMR Study of Polypropylenes of Different Structure and Steric Order". If this translation is approved, it will be used as the basis for our reprinting.

Yours very truly,

E. M. Bevilacqua

EMB:dlw
Encl.

Laubelle
Sepe
Vacuum

HARVARD MEDICAL SCHOOL
DEPARTMENT OF BIOLOGICAL CHEMISTRY

E. R. BLOUT
EDWARD S. HARKNESS PROFESSOR
OF BIOLOGICAL CHEMISTRY

BOSTON
MASSACHUSETTS 02115

December 22, 1966

676

Professor Giulio Natta
Instituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I have delayed in answering your letter of December 1st until I could ascertain whether it would be possible for me to visit your Institute on route to India. I have now checked schedules and connections and regretfully find that it will not be possible for me to stop in Milan during this trip. However, I would very much like to accept your kind invitation at a future date. The length of this trip is circumscribed by the necessity of my being back in Boston in time for the completion of our present academic semester. Thus, I will fly directly to India and return directly from India after the International Symposium on Biopolymers.

I am today writing your colleague, Dr. A. di Corato, indicating that I will be in Rome for approximately two hours between planes and hoping that he could meet me there at that time. Again, let me thank you for your invitation and express my sincere hope that I will see you in the not too distant future.

With kindest regards,

Yours sincerely,

E. R. Blout

E. R. Blout

ERB:ecs

Di Corato andrà a Roma l'11/gennaio 1967
e parlerà con Blout ~~lettera~~.

MONTECATINI

DIVISIONE IMPIANTI E BREVETTI

Ann.

Mr. N.B. Hannay
Bell Telephone Laboratories
Murray Hill,
New Jersey 07971.

February 11, 1965

Dear Mr. Hannay,

Coming back from abroad I have found your kind letter of January 20.

If I am in Milano on April 15, I shall meet you with pleasure; should I not be in town, Prof. Crespi will meet you.

Since I do not believe that there are specific problems to be discussed, I do not think that a visit to the laboratories may be useful at this stage.

Best regards,

Bto. Orsoni

Bartolomeo Orsoni

Or/sl.

Ann

Feb.5, 1965

Dr.Frank A.Bovey,
Bell Telephone Laboratories,
Murray Hill, New Jersey 07971 (U.

our ref.81/lv

Dear Doctor Bovey:

Thank you very much for your kind letter of Jan.27, for the enclosed reprint and for the interesting news you give to me.

Recently we have also worked with NMR, and we think that this method can contribute to solve problems related to the structure and synthesis of stereoregular polymers.

I am glad that you have accepted our invitation to come and visit us after the IUPAC Symposium in Prague; then I shall be mostly pleased to discuss topics of mutual interest with you.

Kindest personal regards,

Giulio Natta

Feb.23, 1966

Johan Bjorksten, President
Bjorksten Research Labs., Inc.
P.O.Box 265
Madison, Wisconsin 53701 (U.S.A

our ref.78/lv

Dear doctor Bjorksten:

I sincerely thank you for your letter of Feb.8 and for kindly sending me the book which I will read with much interest.

I also thank you for recalling our meeting in Zürich more than ten years ago.

Kindest personal regards,

Giulio Natta

Dic.1, 1966

Prof.E.R.Blout,
Harvard Chemical School,
Dept. of Biological Chemistry,
Boston, Massachusetts 02115

our ref.619/lmv

Dear Professor Blout:

Thank you for your letter of Nov.23 to dr.Di Corato. I see that you expect to travel to India next January and stop for a few hours either in Milan or Rome.

It would be my pleasure if you could spend a few hours in my Institute and possibly give an informal Seminar. I ask you, therefore, to re-consider your schedule and plan, if possible, a short visit in my Institute.

In the hope that you can accept my invitation, I send you kindest regards.

Giulio Natta

Porri

HARVARD MEDICAL SCHOOL
DEPARTMENT OF BIOLOGICAL CHEMISTRY

E. R. BLOUT
EDWARD S. HARKNESS PROFESSOR
OF BIOLOGICAL CHEMISTRY

BOSTON
MASSACHUSETTS 02115

October 14, 1966

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italia

Dear Professor Natta:

I have delayed almost unduly in answering your letter of July 5, 1966, concerning your recommendation of Dr. Antonio di Corato for a postdoctoral position in our laboratory. The reason for my delay has been to ascertain whether we would have sufficient funds available next year to support this man. At the present moment I am not able to, even now, give you an affirmative answer. I had previously made several tentative commitments which now appear to be eventuating into actual commitments. Thus, unfortunately, I cannot guarantee funds to support Dr. di Corato at this time for the academic year, 1967-1968.

However, the suggestion I have is that he apply for a NATO postdoctoral fellowship. If he is successful in obtaining such a fellowship, I will be able to provide him with space and laboratory facilities and would welcome him to our group. I would appreciate learning your and his reaction to this suggestion as soon as possible.

Please be assured that if our fund situation changes, I will communicate with you. In the meantime it might be desirable if Dr. di Corato wrote to me and supplied me with the information indicated on the attached form.

I look forward to hearing from you. With kindest regards.

Yours sincerely,

E. R. Blout

E. R. Blout

ERB:ad
Enclosures

HARVARD MEDICAL SCHOOL
DEPARTMENT OF BIOLOGICAL CHEMISTRY

E. R. BLOUT
EDWARD S. HARKNESS PROFESSOR
OF BIOLOGICAL CHEMISTRY

BOSTON
MASSACHUSETTS 02115

May 17, 1966

copia a Porri il 23/5/66

Professor Giulio Natta
Istituto Di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italia

Dear Professor Natta:

Re: 239/lmv

I have received your letter of May 9, 1966, and, needless to say, would very much like to have a postdoctoral fellow from your Institute. Unfortunately, however, every foot of available space in my laboratories is already committed for the academic year, 1966-1967. Thus, unless one of the people who plans to join our group either changes his mind or becomes ill, I will not have space this coming year for one of your co-workers.

In the event that you would like to consider some arrangement for 1967-1968, perhaps we should make plans for this possibility fairly soon.

With kindest regards.

Yours sincerely,

Elkan Blout

E. R. Blout

ERB:ad

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

28 Novembre 1966

Professor Giulio Natta,
Istituto di Chimica Industriale,
Politecnico,
Milano.

Caro Professore,

La ringrazio per i suoi consigli.

Le varie possibilità che si prospettano mi lasciano perplessso ed in questo momento non saprei cosa decidere.

Forse, come anche Lei pensa, l'incarico di Biopolimeri a Genova e' la cosa piu' semplice.

La terro' informato degli ulteriori sviluppi e Le invio i miei piu' cari saluti ed auguri.

Alberto Ciferri

/j

TELEPHONE
549-8111

RESEARCH TRIANGLE PARK
BOX 731, DURHAM, NORTH CAROLINA

CHEMSTRAND
RESEARCH CENTER, INC.

14 Novembre 1966

Professor Giulio Natta
Istituto di Chimica Industriale
Politecnico
Milano.

Caro Professore,

vorrei ritornare in Italia, fra un anno o due, e vorrei pregarLa di offrirmi qualche suggerimento circa le possibilita' di rinserimento.

Tale ritorno, che dovrebbe essere definitivo, e'motivato dal fatto che sia io che mia moglie siamo notevolmente stanchi di vivere in America e dalla necessita' di dare a mio figlio un'educazione italiana.

Sono certo che Lei trovera'...naturale il fatto che io Le chieda consiglio e La ringrazio sentitamente. (Una possibilita' di cui sono al corrente e' quella di riassumere l'incarico di Biopolimeri a Genova).

Invio a Lei ed alla Sua Signora i miei migliori saluti.

Alberto Ciferri

Alberto Ciferri

DEPARTMENT OF CHEMISTRY
CORNELL UNIVERSITY
ITHACA, NEW YORK 14850

April 12, 1966

Prof. Dr. Guilio Natta
Istituto de Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano
Italy

Dear Dr. Natta,

Thank you for your letter of April 7 in which you inform me that Prof. Corradini would be willing to give one of the Welch Conferences.

I have immediately sent an invitation to Dr. Corradini.

Thank you for your help.

Sincerely yours,

P. Debye

P. Debye

PD:sh

Copy

HARVARD MEDICAL SCHOOL
DEPARTMENT OF BIOLOGICAL CHEMISTRY

E. R. BLOUT
EDWARD S. HARKNESS PROFESSOR
OF BIOLOGICAL CHEMISTRY

BOSTON
MASSACHUSETTS 02115

November 23, 1966

Dr. Antonio di Corato
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci
32-Milano, Italy

Dear Dr. di Corato:

I have received your letter of November 10th and am sorry to learn that you have not been able to obtain a suitable fellowship.

I am writing to you specifically at this time to tell you that I expect to travel to India in January, 1967 in order to attend the Madras Symposium on Conformation of Biopolymers. If I were able to stop for a few hours either in Milan or Rome during the period January 11 to 15 or January 22 to 29, would it be possible for you to meet with me in order to discuss your coming to our laboratory in greater detail than one is able to do via correspondence?

I look forward to hearing from you regarding this suggestion.

Yours sincerely,

E. R. Blout

E. R. Blout

ERB:ecs

cc: Professor Giulio Natta

July 5, 1966

Prof.E.R.Blout,
Harvard Medical School,
Dept. of Biological Chemistry,
Boston, Massachusetts 02115

our ref.335/lmv

Dear Professor Blout:

Thank you for your kind letter of June 14, 1966. I can recommend Dr.Antonio di Corato for a postdoctoral position in your laboratory. Dr. diCorato is 26 years old and has received his degree in chemistry in Nov.1964; his thesis was an experimental work in the field of natural products. For two years he has been working in my laboratories on the stereospecific polymerization of dienes. As a consequence, he is now well-trained in the fields of organic chemistry and stereospecific polymerization of hydrocarbon monomers, but he has had no exposure to the field of polypeptides. Dr. diCorato would like to shift his interest from synthetic to natural polymers, so I think that it would be very useful for him to spend a period of at least one year in your laboratory. He would be especially interested in the synthesis of peptides and polypeptides.

I would appreciate further information concerning the position available for him and the time when he would begin.

I look forward to hearing from you and thank you again.

With best regards,

Your sincerely,

Giulio Natta

July 19, 1966

Mr.E.M.Bevilacqua, Editor
Rubber Chemistry & Technology,
United States Rubber Co.,
Research Center,
Wayne, New Jersey 07470 (U.S.A.)

our ref.383/lmv

Dear Mr.Bevilacqua:

Under separate cover, I return you the copy of the English translation of our paper "NMR Study of Polypropylenes of Different Structure and Steric Order".

After correcting one sentence on page 8, we approve this translation.

We have also contacted the Editor of "La Chimica e l'Industria" and got his permission to have our article published in your journal.

Kindest regards,

Giulio Natta

Nov.11, 1966

Dr.E.R.Blout,
Harvard Medical School,
Dept. of Biological Chemistry,
Boston, Mass. 02115 (U.S.A.)

our ref.535/lmv

Dear doctor Blout:

Thank you for your letter of Oct.14. According to your suggestion, we enquired about the possibility of finding a fellowship for Dr. di Corato, to support his stay in the States, but, unfortunately, with no success.

If you agree, I would suggest to leave this question open until that a fellowship is available for him. I hope this will be possible in 1967.

With kindest regards.

Giulio Natta

LABORATORIO DI CHIMICA GENERALE ED INORGANICA
Istituto Chimico - Università di Napoli

NAPOLI 5/4/66

Via Mezzocannone, 4 - Tel. 313426-323382

ESPRESSO

Chiar.mo Prof.G.Natta
Istituto di Chimica Industriale
del Politecnico di MILANO

P.zza Leonardo da Vinci, 32

Egregio Professore,

La ringrazio per la Sua del 29/3/66.

Sono lieto della Sua segnalazione, e se Farina non può andare, ritengo di poter andare senz'altro alla "Welch Conference".

Colgo l'occasione per inviarLe molti cordiali saluti e auguri di buone feste.

Suo

Paolo Corradini

DEPARTMENT OF CHEMISTRY
CORNELL UNIVERSITY
ITHACA, NEW YORK 14850

March 21, 1966

Prof. Dr. G. Natta
Istituto di Chimica Industriale
Politechnico
Piazza Leonardo da Vinvi 32
Milano, Italy

144

Dear Professor Natta,

Thank you so much for your kind letter of March 4 answering my letter of February 21, 1966. I am of course disappointed that we cannot have you here. Everybody would have been highly pleased if your participation had been possible. However I understand the position and the only thing I can do is to send you my very best wishes for your health.

I believe that it would be very appropriate if under these circumstances we would at least have a representation of your laboratory at the occasion of the Conferences. I have considered the 4 names which you mention in your letter and the topics appearing under their names. As a topic, the one which I like best is "The asymmetric synthesis of optically active polymers." So I would give preference to Prof. M. Farina from this point of view. There is however also the other point of view, namely, "How well does Farina speak English?"

If Farina speaks English well enough, would you ask him, whether he would be willing to participate. You know already the conditions from my former letter to you.

Should it turn out that unfortunately Prof. Farina does not feel that he can give his address in English well enough I believe that under the circumstances we would prefer to see Prof. P. Corradini.

So my other request is: could you please ask Prof. Corradini if he is willing in case Prof. Farina cannot do it?

I am sorry to burden you with these requests. I hope that I am not asking too much. In any case I would appreciate hearing from you at your early convenience, You may be interested to know that Mark, Marvel, Flory, and Benoit have already promised to participate in Houston.

Sincerely yours,

P. Debye

PD:sh

P. Debye

DEPARTMENT OF CHEMISTRY
CORNELL UNIVERSITY
ITHACA, NEW YORK 14850

February 21, 1966

Dr. G. Natta
Istituto Chimica Industriale Politecnico
Centro Chemica delle Macromolecole del CNR
Societa Montecatini
Milano
Italy

95

Dear Dr. Natta,

Three days in November of this year, Monday, November 21-Wednesday, November 23 we will have in Houston (Texas) again one of the yearly Robert A. Welch Conferences. This time the subject will be "Polymers."

Due to a sequence of extraneous circumstances I could not begin earlier asking for cooperation. Now I can start and you will say at a rather late date for which I apologize. You are one of the first I am writing to.

You will probably know what the arrangement is. We invite six people from anywhere, foremost in the field to be discussed and give to each of them half a day for his talk and the following discussion, which we consider as a very essential part. Everything is reproduced immediately such that most of the time the discussion-remarks are in the hands of the speakers in less than 12 hours after they were made.

In setting up this type of conference we considered it to be essential not only to have the best speakers but also to have an audience of the same caliber. This is why the Welch Foundation invites about 15 people from the U. S. as "discussion leaders," a designation which is only partly adequate.

On top of that the meeting is open to anybody who wants to attend, no attendance fees are charged. The number of people who have been taking part in former conferences has always been of the order of 500-1000, sometimes more. The proceedings are printed and distributed free by the Foundation. In this connection it is very important that manuscripts reach our Director of Research, Dr. Milligan without delay after the meetings have been held in order to make it possible to have everything printed within a year.

DEPARTMENT OF CHEMISTRY
CORNELL UNIVERSITY
ITHACA, NEW YORK 14850

I have of course a tentative program in mind, although everyone of the main speakers has the utmost freedom to choose his own subject. The list of the six speakers I am writing to now is not filled. I want to start with those which I consider to be the most important, try to get their reaction first and see later what I have to do to fill the places left open. The names of those to which a letter of this type is going now are (in alphabetical order):
Benoit, Flory, Marvel, Natta, Ziegler.

To this list of five I have to add the name of Herman Mark, who is being invited to give a short introductory address, covering historical aspects and future developments at the start of the meetings.

We would be highly pleased if you could consider taking part in the proceedings and take care of one of the conferences. In case this is possible I would appreciate if you could send me a title.

The Welch Foundation will take care of all expenses (including transportation) and offers to each of the main speakers a honorarium of one thousand dollars.

Hoping to hear from you in the near future,

Sincerely yours,

P. Debye

P. Debye

PD:sh

Istituto Chimica Industriale del Politecnico

Il Direttore
Prof. G. NATTA

Piazza Leonardo da Vinci 32 - MILANO
tel. 292.105

Milano, 29.3.1966

ns.rif.N.153/rl

Chiar.mo Prof. Paolo Corradini
Laboratorio di Chimica Generale
e Inorganica - Istituto Chimico
Università di

NAPOLI

Caro Corradini,

Le unisco copia di una corrispondenza avuta con il Prof. Debye.

Poichè Farina è un pò preoccupato per quanto può riguardare la sua conoscenza dell'inglese, per la discussione che seguirà la Conferenza, e dato che Debye dà molta importanza alla cosa, La pregherei di dirmi subito se Lei è disposto a partecipare a tale Simposio presentando una comunicazione, in modo che io possa rispondere al più presto a Debye.

Grazie e cordiali saluti.

All/

DEPARTMENT OF CHEMISTRY
CORNELL UNIVERSITY
ITHACA, NEW YORK 14850

March 21, 1966

Prof. Dr. G. Natta
Istituto di Chimica Industriale
Politechnico
Piazza Leonardo da Vinvi 32
Milano, Italy

144

Dear Professor Natta,

Thank you so much for your kind letter of March 4 answering my letter of February 21, 1966. I am of course disappointed that we cannot have you here. Everybody would have been highly pleased if your participation had been possible. However I understand the position and the only thing I can do is to send you my very best wishes for your health.

I believe that it would be very appropriate if under these circumstances we would at least have a representation of your laboratory at the occasion of the Conferences. I have considered the 4 names which you mention in your letter and the topics appearing under their names. As a topic, the one which I like best is "The asymmetric synthesis of optically active polymers." So I would give preference to Prof. M. Farina from this point of view. There is however also the other point of view, namely, "How well does Farina speak English?"

If Farina speaks English well enough, would you ask him, whether he would be willing to participate. You know already the conditions from my former letter to you.

Should it turn out that unfortunately Prof. Farina does not feel that he can give his address in English well enough I believe that under the circumstances we would prefer to see Prof. P. Corradini.

So my other request is: could you please ask Prof. Corradini if he is willing in case Prof. Farina cannot do it?

I am sorry to burden you with these requests. I hope that I am not asking too much. In any case I would appreciate hearing from you at your early convenience, You may be interested to know that Mark, Marvel, Flory, and Benoit have already promised to participate in Houston.

Sincerely yours,

P. Debye

PD:sh

P. Debye

Dem-

March 4, 1966

Prof.P.Debye,
Dept.of Chemistry,
Cornell University
Ithaca, New York 14850 (USA)

our ref.95/lmv

Dear Professor Debye:

Thank you for your kind letter of Feb.21, and for kindly inviting me to participte with one lecture in the Robert A.Welch Conference on "Polymers".

I would have been much pleased to accept it, had my state of health permitted me to do so. As a matter of fact, I have been compelled to give up other invitations, because I expect I shall not be able to make long journeys.

In case you desire the participation of one of my co-workers, I indicate you their names and the topics they are specialists in:

- Prof.P.Corradini: Crystal structure and conformation of stereoregular polymers.
- Prof.I.Pasquon: Kinetics and mechanism of the stereo=specific polymerization of α -olefins.
- Prof.L.Porri: Stereospecific polymerization and copoly=merization of diolefins.
- Prof.M.Farina: The asymmetric synthesis of optically aetive polymers.

I have not yet asked my co-workers whether they expect to be able to accept your possible invitation. I will do so when you tell me which is the most suitable topic for the Conference and if you think it convenient that I may be replaced by one of them.

Kindest personal regards.

G.Natta

DEPARTMENT OF CHEMISTRY
CORNELL UNIVERSITY
ITHACA, NEW YORK 14850

February 21, 1966

Dr. G. Natta
Istituto Chimica Industriale Politecnico
Centro Chemica delle Macromolecole del CNR
Societa Montecatini
Milano
Italy

95

Dear Dr. Natta,

Three days in November of this year, Monday, November 21-Wednesday, November 23 we will have in Houston (Texas) again one of the yearly Robert A. Welch Conferences. This time the subject will be "Polymers."

Due to a sequence of extraneous circumstances I could not begin earlier asking for cooperation. Now I can start and you will say at a rather late date for which I apologize. You are one of the first I am writing to.

You will probably know what the arrangement is. We invite six people from anywhere, foremost in the field to be discussed and give to each of them half a day for his talk and the following discussion, which we consider as a very essential part. Everything is reproduced immediately such that most of the time the discussion-remarks are in the hands of the speakers in less than 12 hours after they were made.

In setting up this type of conference we considered it to be essential not only to have the best speakers but also to have an audience of the same caliber. This is why the Welch Foundation invites about 15 people from the U. S. as "discussion leaders," a designation which is only partly adequate.

On top of that the meeting is open to anybody who wants to attend, no attendance fees are charged. The number of people who have been taking part in former conferences has always been of the order of 500-1000, sometimes more. The proceedings are printed and distributed free by the Foundation. In this connection it is very important that manuscripts reach our Director of Research, Dr. Milligan without delay after the meetings have been held in order to make it possible to have everything printed within a year.

DEPARTMENT OF CHEMISTRY
CORNELL UNIVERSITY
ITHACA, NEW YORK 14850

I have of course a tentative program in mind, although everyone of the main speakers has the utmost freedom to choose his own subject. The list of the six speakers I am writing to now is not filled. I want to start with those which I consider to be the most important, try to get their reaction first and see later what I have to do to fill the places left open. The names of those to which a letter of this type is going now are (in alphabetical order):
Benoit, Flory, Marvel, Natta, Ziegler.

To this list of five I have to add the name of Herman Mark, who is being invited to give a short introductory address, covering historical aspects and future developments at the start of the meetings.

We would be highly pleased if you could consider taking part in the proceedings and take care of one of the conferences. In case this is possible I would appreciate if you could send me a title.

The Welch Foundation will take care of all expenses (including transportation) and offers to each of the main speakers a honorarium of one thousand dollars.

Hoping to hear from you in the near future,

Sincerely yours,

P. Debye

P. Debye

PD:sh

J. HARRY DU BOIS COMPANY

MARKETING, PRODUCT DEVELOPMENT AND ENGINEERING CONSULTANTS ON PLASTICS

1226 Johnston Drive, Watchung, N. J. 07060

Telephones: Office: 201-473-4108
Home: 201-322-1760

January 25,1966

Dr. Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32 -Milano
Italy

Dear Dr. Natta:

It was very kind of you to send your congratulations for winning the S.P.E. International Award. I am overwhelmed by this honor, particularly in view of your high levels of achievement and tremendous contributions to the plastics industry.

We sincerely hope you will be able to join us in Montreal.

Yours sincerely,

J. Harry DuBois

cc: Robert Farger
Nick Rosato

JHD/jf

Dr.Pirani

cc Corradini

Ho ricevuto copia della lettera inviata dal Prof.Corradini relativa all'ipotesi del Prof.Flory.

Approvo il programma del Prof.Corradini e desidero informarvi che ~~ii~~ i Profs. Allegra, Moraglio e Zambelli, che stanno lavorando su certi aspetti dello stesso campo, hanno in programma di completare le loro ricerche e di pubblicare i loro risultati o in lavori con il Prof.Corradini, oppure in lavori separati, secondo accordi che potranno prendere con il Prof.Corradini stesso.

In particolare, il Prof.Allgra ha esaminato la possibilità che nel reticolo cristallino del polimero isotattico possano essere contenute ~~alcune~~ irregolarità configurazionali di qualunque tipo. ~~anche di vario tipo.~~ Risulterebbe, d'accordo con Corradini, che il reticolo cristallino non può assolutamente contenere ~~contenga eventualmente~~ delle irregolarità del tipo di quello proposto da Flory, cioè di tipo ...LLLLDDDD... mentre non si può escludere che contenga irregolarità di tipo ...DDDDLDDDD...

Bisogna però esaminare se l'accettare irregolarità di quesstо tipo può nuocere alla ~~sulla~~ validità dei nostri brevetti.

Zambelli si propone di controllare sperimentalmente, mediante analisi NMR, dei polimeri del CD_3-CD=CHD (cis e trans) e del CD_3-CD=CH_2, la presenza effettiva o meno di irregolarità di qualsiasi tipo nel polipropilene isotattico altamente cristallino. Questo esame di RMN consente, già molto probabilmente di avere dati diretti e ~~universalmente~~ univocamente interpretabili e ~~dovrebbe permettere~~ di stabilire in modo indiscutibile la costituzione ~~di~~ sterica dei polimeri.

~~Morgax Moraglioxsixpro~~

Così si ~~Questo~~ potrebbe evitare di prendere in considerazione le proposte di Corradini circa il ~~riesame~~ calcolo degli spettri NMR, che appaiono difficilmente concretabili e ~~pure~~ forse meno sicure nelle conclusioni. Moraglio ~~Si~~ propone di completare misure per polimeri isotattici del coefficiente di temperatura della distanza quadratica media, che Flory assume positivo o nullo, mentre le nostre prime misure ci dicono che è negativo, e pertanto in migliore accordo coi calcoli eseguiti sul polimero isotattico senza difetti.

I migliori saluti

per il punto che più ci interessa,

LABORATORIO DI CHIMICA GENERALE ED INORGANICA
Istituto Chimico - Università di Napoli

NAPOLI 21 luglio 1966
Via Mezzocannone, 4 - Tel. 313426 - 323382

Chiar.mo Prof.Giulio Natta
Istituto di Chimica Industriale
del Politecnico- MILANO
P.zza Leonardo da Vinci , 32

Egregio Professore,

in allegato Le invio copia di una lettera da me scritta al Dr.Pirani, sulla questione della stereoregolarità dei polimeri isotattici.
Un riesame dei nostri spettri NMR, come indicato nella lettera, e dei nostri lavori roentgenografici -per negare le conclusioni di Flory- potrebbero essere alla base di una lettera all'Editore da inviare al più presto.
In attesa di una Sua al riguardo, colgo l'occasione per inviare molti cordiali saluti a Lei e Signora e auguri di buone vacanze

Suo

Paolo Corradini

All/ti: 5

Egregio Dott.Pirani
c/o Società Montecatini
Ufficio Brevetti MILANO
Largo G.Donegani, 1/2

Napoli, 21/7/66

Egregio Dott.Pirani,

sarà venuto a conoscenza di un ulteriore lavoro del prof.Flory sull'argomento delle irregolarità nei polimeri isotattici, (JACS, 88,2873 (1966).

Una discussione sulla validità scientifica o meno delle conclusioni di Flory (per i polimeri da lui esaminati) è piuttosto intricata, e su di essa ritornerò più avanti in questa lettera.

Flory sostiene che la presenza di un 5-10% di unità sindiotattiche in una catena polivinilica altrimenti isotattica, mentre non è in disaccordo con i dati NMR e raggi X, darebbe ragione delle dimensioni delle catene olefiniche in soluzione imperturbata e del fatto che non sembra che tali dimensioni apprezzabilmente varino con la temperatura.

E' mia opinione che se anche ciò fosse vero, ciò non dovrebbe toccare in alcun modo la posizione brevettuale della Società Montecatini. Cosa significa l'affermazione Rexall che nel suo prodotto "una sostanziale porzione dei gruppi metilici angolari (?) si estendono dalla catena lineare in una direzione opposta a quella di altri gruppi metilici" ?. Se vi fossero in una catena anche 5-10% di posizionamenti sindiotattici, come dice Flory, varrebbe sempre la nostra affermazione che "almeno per lunghe porzioni della catena i gruppi metilici sono dalla stessa parte della catena lineare distesa nel piano".

Cosa vuole dire sostanziale ? Non certo tale da impartire proprietà chimico-fisiche sostanzialmente diverse da quelle del prodotto descritto e brevettato dalla Montecatini, cosa che mi sembra dovere logicamente escludere.

Più subdolo (e più idiota, ma non si sa mai) potrebbe essere il ragionamento: Natta ha brevettato un prodotto in cui i gruppi metilici sono dalla stessa parte del piano ed hanno tutti la stessa configurazione sterica; nel nostro prodotto in ogni singola catena un 50% dei gruppi metilici è da una parte del piano e un 50% dall'altra (e sarebbe allora una "sostanziale" porzione!), come accade in una catena del tipo:

....ddddd....lllll....ddddd....lllll....

A me sembra che la posizione Montecatini vada difesa anche nell'ipotesi che Flory abbia ragione e questo perchè alternativamente ci si imbarcherebbe in una diatriba scientifica probabilmente senza fine, scarsamente comprensibile da parte dei legali.

Non è inutile però fare alcuni commenti alle affermazioni di Flory -e forse varrebbe la pena pubblicare da parte nostra qualcosa al riguardo-.

Innanzitutto la presenza di un 5-10% di unità sindiotattiche in una catena polipropilenica altrimenti isotattica è in disaccordo sia coi raggi X che con le misure NMR di Natta, Zambelli et al.

Raggi X — La vicarianza di eliche destre e sinistre a caso nello stesso sito del reticolo è assolutamente impossibile e pertanto i difetti sindiotattici visualizzati da Flory (....dddlllll....) non sono tollerabili da parte dei cristalli. L'alta cristallinità dei polimeri, e la lunghezza media dei tratti cristallizzati vietano pertanto la presenza di alte proporzioni (5-10%) di unità sindiotattiche nelle catene cristallizzate.

Attenzione però a spingere troppo avanti queste evidenze!.

Ragionandoci sopra, ho visto ad esempio che un difetto del tipo (....dddd l ddd....) potrebbe essere tollerato da parte del cristallo, perchè in tal caso il senso di spiralizzazione resterebbe invariato, e l'argomento della impossibile vicarianza di eliche destre e sinistre nello stesso sito del reticolo cadrebbe.

Naturalmente, la presenza di difetti di questo tipo dovrebbe portare a variazioni di proprietà fisiche come il calore di fusione (ritengo ad esempio che tali difetti potrebbero giustificare la differenza nelle aree dei picchi DTA tra i nostri prodotti e quelli Standard, come ho già avuto modo di segnalare). Flory non ha portato avanti questa ipotesi (difetti tipo ....ddd l ddd....) ma potrebbe farlo nel futuro.

NMR — Flory e Baldeschwieler sostengono che, se un polimero è prevalentemente isotattico, con qualche posizionamento dl, il picco nmr di una unità sindiotattica isolata dovrebbe capitare in un posto differente, anche marcatamente, da quello di una tale unità in una catena tutta sindiotattica. Tale picco potrebbe essere oscurato da uno dei picchi del quartetto di tipo AB dei gruppi metilenici, nel polimero isotattico deuterato trovato da Natta, Lombardi, Segre, Zambelli, Marinangeli.

Mentre, date e non concesse le premesse, il ragionamento termodinamico-statistico di Flory mi sembra inecepibile, intuitivamente mi sembra assai dubbio che il picco sindiotattico si possa spostare in tal misura ed è sparare a una mosca lo affermare, come fa Flory, che vada proprio a finire sotto a un picco del quartetto isotattico. Tale quartetto appare negli spettri di Natta et al. perfettamente simmetrico e un calcolo da me fatto approssimativamente indica che già un 5% di unità sindiotattiche cambierebbe i rapporti di intensità da circa 1:2 : 2:1 (come appare) a circa 1:2 : 2,3:1 oppure 1,3 : 2:2:1 cosa che certamente non sembra dallo spettro riportato nel lavoro.

Un più preciso calcolo dello spettro teorico potrebbe essere effettuato con un programma per calcolatore elettronico di cui disponiamo, qualora potessimo disporre dell'originale dello spettro o di una piccola quantità di prodotto.

Importante al riguardo potrebbe essere anche fare una prova con spin decoupler. Ma ritengo quasi certo che con lo spettro di Natta et al. non è compatibile che ~~una~~ con quantità nettamente inferiore al 5% di posizionamenti (dl) (se pur ci sono).

Chi volesse cavillare potrebbe ancora dire però che ciò non prova che in polipropileni "isotattici" preparati in modo differente non ci possa essere un 5-10% di inversioni di tassia; ciò che mi convince, come ho scritto prima, che la posizione Montecatini vada difesa come se ci potessero essere un 5-10% di tali inversioni (anche se non ci sono). In poche parole: ci sia pure un 5-10% di inversioni nel prodotto Montecatini : non è dunque descrivibile il polimero come fatto da lunghe sequenze etc...? nel prodotto Rexall ci sono inversioni, in quello Montecatini no; quali differenze nelle proprietà fisiche ci sono tra i due prodotti ? (IR, NMR, RX, PF, $[\eta]$ in funzione di M)?.

Lunghezza quadratica media imperturbata — Come abbiamo dimostrato in Makr.Chem. 61, 225 (1963) le dimensioni quadratiche medie delle catene trovate per i polimeri isotattici sono compatibili con quelle teoriche con valori ragionevoli dell'energia agli snodi tra piccole porzioni di catena spiralizzate in senso opposto. Ad esempio il valore di Moraglio per il polipentene è ottenibile con $\Delta E = 2$ Kcal/mole e $Z = 4$.

Criticabilissima è perciò la conclusione che le dimensioni della catena sono irriconciliabili con una struttura stereoregolare perfetta. Di più difficile riconciliazione è solo il fatto che i modelli teori-

. . . . . .

ci prevedono una diminuzione abbastanza notevole delle dimensioni della catena con la temperatura, in contrasto apparente con l'esperimento. Tuttavia, mentre Flory trova un aumento di tali dimensioni, spesso con tecniche sperimentali assai criticabili per le premesse teoriche su cui si basano (le catene di un polimero amorfo trattabili come se fossero "imperturbate"), Moreglio trova una diminuzione, peraltro non molto marcata. Anche se non si può essere soddisfatti, una riconciliazione è già forse possibile nell'ambito degli errori sperimentali di misura, da una parte, e nelle imprecisioni delle teorie attraverso cui i dati sperimentali si interpretano e delle presenti teorie termodinamico-statistiche delle dimensioni imperturbate dall'altra. Nei polimeri finora studiati, come il polipentene,(il polipropilene non è stato studiato a questo riguardo) potrebbero poi essere effettivamente presenti piccole quantità di inversioni di tassia, con le quali si potrebbe -sono anch'io d'accordo- meglio spiegare il valore sperimentale piccolo del coefficiente di temperatura delle dimensioni della catena in soluzione.

. . . . . .

Rapporto Esso — Ho letto il rapporto Esso. La fig.4 è sufficientemente illustrativa delle condizioni di non-equilibrio in cui avviene la fusione; a basse velocità di riscaldamento il picco a 160° tende a scomparire. Scompaiono anche le molecole di bassa stereoregolarità che fondono a 160° anzichè a 167° (pag.17) ?.

Il prodotto Escon è forse un pò meno stereoregolare di quello Shell con cui è confrontato,(ciò risulta dalle estrazioni) ma non vedo alcuna rilevanza scientifica nella proposta di misurare il cosiddetto "rapporto MTA" come indice della stereoregolarità.

Colgo l'occasione per inviarLe molti cordiali saluti

Suo

Paolo Corradini

MONTECATINI

SERVIZI BREVETTI

Sede, 2 agosto 1966

Egr. Sig.
Prof. G. NATTA
Ist. Chim. Ind.
POLITECNICO di
Milano

4 AGO 1966
2021

Egregio Professore,

Mentre La ringrazio per la Sua del 29 luglio, in cui mi espone il programma di lavoro dei Proff. Allegra, Moraglio e Zambelli in relazione alle ipotesi del Prof. Flory circa la presenza di irregolarità nel polipropilene isotattico, Le accludo copia della mia al Prof. Corradini del 28 luglio sull'argomento.

Con i migliori saluti.

(R. Pirani-)

All.

28 luglio 1966

Egr.Sig.
Prof. Paolo Corradini
Ist.Chim.Inorg.
UNIVERSITA' di
N A P O L I
via Mezzocannone 4

Egregio Professore,

La ringrazio per la Sua lettera del 21 corrente che ho letto con molto interesse.

Per quanto riguarda le asserzioni della Rexall, in riferimento ai lavori di Flory, sono d'accordo con Lei che, indipendentemente dalla attendibilità o meno di quanto Flory afferma circa la presenza di irregolarità steriche nei polimeri isotattici, le definizioni contenute nel nostro brevetto e le rivendicazioni relative tengono conto della possibile esistenza di queste irregolarità, e che perciò, da questo punto di vista, Rexall o altri non sembrano avere possibilità di sfuggire alle rivendicazioni medesime.

Per quanto riguarda le affermazioni di Flory sarà il caso di considerare con calma se e che cosa sia il caso di rispondere, sotto forma di un lavoro da pubblicare, d'accordo eventualmente anche con Zambelli e Moraglio.

Circa il rapporto Esso, anche il Prof. Moraglio è d'avviso che non si debba attribuirgli valore, nel senso che esso possa effettivamente fornire un metodo utile per una misura quantitativa della stereoregolarità.

L'incertezza di una misura del genere è d'altronde un appiglio a cui si è recentemente attaccata p.es. la Esso in un documento presentato nel corso della causa per contraffazione negli Stati Uniti, nel quale è detto :

./.

"highly complicated analytical measurements, even in the present-day state of advancement, are required to ascertain whether a particular polypropylene has the kind of structure which the patent describes"

e ancora

"The total result of what work has been done to date reveals that the determination is quite inconclusive", e infine:

"... perhaps even Plaintiff (cioè Montecatini), today, recognizes the difficulty of conclusively establishing the so-called "isotactic" nature of the material"
(Nel quale ultimo punto non è chiaro se si voglia mettere in dubbio la possibilità di stabilire qualitativamente la struttura oppure di determinarne quantitativamente la presenza in un polimero).

Questo argomento mi sembra meriti in generale qualche attenzione.

Cordiali saluti.

(R. Pirani)

STANFORD UNIVERSITY
STANFORD, CALIFORNIA

DEPARTMENT OF CHEMISTRY

June 6, 1966

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italia

Dear Professor Natta:

Prior to receipt of your letter which has just arrived, I previously heard of the impending suit in the field of polypropylene. In fact I was approached some time ago by the other side to act as their expert, a request which I declined.

I could not possibly comply with your request on such short notice. Moreover, for the next few months I shall be deeply involved in scientific work to which I am determined to give foremost attention. I sincerely regret that I can not lend assistance to your cause.

With kind personal regards, I am,

Sincerely,

P. J. Flory
Jackson-Wood Professor

PJF:nw

Copia alla segreteria Fiaem al 13/6/66

appena ritorno da Fiaem e per conoscenza

Ahn -

May 23, 1966

Prof.E.R.Blout,
Harvard Medical School,
Dept. of Biological Chemistry,
Boston, Mass.02115

our ref.No.272/lmv

Dear Professor Blout:

Thank you for your kind letter of May 17. I regret that you cannot provide a post-doctoral accommodation for one of my young co-workers for this year. I'd be glad, however, if you consider this possibility for the next year. If there is a possibility of such an arrangement, please let me know at your earliest convenience.

With kindest regards,

Sincerely yours,

Giulio Natta

May 9, 1966

Prof.E.R.Blout,
Dept.of Biological Chemistry,
Medical School,
Harvard University
Boston 15, Mass. (U.S.A.)

our ref.239/lmv

Dear Professor Blout:

I wish to inform you that some young chemists who have been working for two years at my Institute in the field of macromolecular chemistry, have made applications to the United States Information Service to obtain grants covering travel expenses to the States.

However, funds are not available for their stay in the U.S.A. If your budget for 1966-67 considers the possibility of granting post-doctorate fellowships to young researchers, who may work under your direction on a subject of your choice, my young co-workers would be very pleased to be accepted in your Institute.

I would mostly appreciate your letting me know, at your earliest convenience, your opinion concerning this matter. If your reply is favorable, more precise agreements can be reached later.

Thanking you very much in advance, I send you kindest personal regards.

Giulio Natta

CHEVRON RESEARCH COMPANY
A STANDARD OIL COMPANY OF CALIFORNIA SUBSIDIARY
RICHMOND LABORATORY
576 STANDARD AVENUE RICHMOND CALIFORNIA 94802

Am

August 3, 1966

File 002.11-1147
Fig. 1 Ref. 15
Fig. 9 Ref. 15

Professor G. Natta
Instituto Chemica Industriale del Politecnico
Milano, Italy

Dear Professor Natta:

We are writing a chapter on "Physical Properties of Stereoregular Polymers in the Solid State" to appear in a book, Stereoregular Polymers, edited by A. D. Ketley. We wish to use as an illustration your:

Figure 3, J. Polymer Sci., 34, 539 (1959)

Figure 2, J. Polymer Sci., 34, 537 (1959)

We are, of course, requesting permission of the copyright holder. We would, however, also appreciate your concurrence in releasing this material. For your convenience a form is given below, and a copy of this letter is enclosed for your files.

Very truly yours,

Julian F. Johnson

Roger S. Porter

JFJ:kh
Encl. - Return addressed envelope

I do not object to your use of the material as requested above.

By _____ d'accord

Date September 12, 1966

21.11.1966

Egr.
Prof. Dr. Alberto Ciferri
Chemstrand Research Center
Research Triangle Park
Box 731
Durham, North Carolina, USA

ns. rif. N. 597/rl

Egregio Professore,

ricevo la Sua lettera del 14.11, con la quale mi informa della Sua decisione di tornare in Italia.

Probabilmente la cosa più semplice è che Lei riprenda l'incarico di Biopolimeri presso l'Università di Genova, di cui si è già occupato, se l'argomento Le interessa.

Altrimenti, nel campo universitario, l'ambiente più adatto per Lei sarebbe la Sezione III del Centro Nazionale di Chimica delle Macromolecole del Consiglio Nazionale delle Ricerche, diretta dal Prof. A. M. Liquori che, sino a quest'anno insegnava a Napoli ma che ora è stato trasferito alla Direzione dell'Istituto di Chimica Fisica dell'Università di Roma. Nel caso che la cosa Le interessi, mi avverta che invierò io stesso copia del Suo curriculum al Prof. Liquori.

Nel caso invece che Lei fosse interessato ad una posizione di ricerca nell'industria, potrei presentarLa alla Montecatini oppure all'ENI; In quest'ultima, i laboratori di ricerca sono piuttosto sguarniti di dirigenti di primo piano, e quindi può essere più facile fare carriera.

In attesa di Sue notizie Le invio i migliori saluti ed auguri.

Giulio Natta

May 24, 1966

Prof.D.J.Cram,
Dept.of Chemistry,
University of California,
Los Angeles, California 90024 (USA)

our ref.211/lmv

Dear Professor Cram:

With a delay of almost two months - due to mail-service strikes in Italy - I have received your letter of March 18, supporting Prof.Winstein as Nobel Prize winner for 1966.

I do highly appreciate the research done by Prof.Winstein; but it is now too late to send proposals to the Nobel Committee for 1966. I will bear in mind your opinions for the proposals that have to be sent to Stockholm before Jan.31, 1967.

Obviously, I have received other proposals supporting very worthy chemists, but, until now, I have not made any definitive choice among the possible candidates.

Kindest regards,

Giulio Natta

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF CHEMISTRY
LOS ANGELES, CALIFORNIA 90024

rispondere interessante per esaminando

18 March 1966

Professor Dr. Guilio Natta
Institute di Chimica Industriale del Politecnico
Piazza Leanardo da Vinci
Milano, Italy

211

Dear Professor Natta:

Professor Willard Libby of UCLA has nominated Professor S. Winstein of our Chemistry Department for the 1966 Nobel Prize in Chemistry. Enclosed is a copy of my letter seconding the nomination and evaluating Winstein's contribution to Chemistry. In this letter I paraphrase a number of comments about Winstein made by various authorities.

In my opinion, a very substantial case has been made for Winstein, and I am seeking your support of his nomination. While physical organic chemistry and reaction mechanisms directly affect every branch of the science from industrial applications to molecular biology, this relatively new field of chemistry has not yet been recognized by the Nobel Prize Committee. Professor Winstein is clearly the foremost physical organic chemist in the world today, and his work on "Neighboring Group Effects" alone would justify the prize.

I know that your opinion would be of considerable value to the Nobel Committee for Chemistry. Therefore, if you agree with the sentiments in my supporting letter, I would appreciate your writing to this effect to the Nobel Committee for Chemistry, Stockholm 50, Sweden.

Cordially yours,

D. J. Cram

D. J. Cram
Professor of Chemistry

DJC:rb
Encl.

Original letter sent to Nobel Committee

April 7, 1966

Prof.P.Debye,
Dept. of Chemistry,
Cornell University
Ithaca, New York 14850 (U.S.A.)

- our ref.144/lmv

Dear doctor Debye:

Thank you very much for your kind letter of March 21. As Prof.Farina does not feel that he can participate in the Welch Conference, I have asked Prof.Corradini whether he is willing to come and I have received a positive answer. Therefore you can contact Prof.Corradini directly to his Naples address:

Prof.Paolo Corradini
Laboratorio di Chimica Generale e Inorganica
Istituto Chimico
Università
Via Mezzocannone 4
Napoli (Italy).

Sincerely yours,

Giulio Natta

Dear -

March 4, 1966

Prof.P.Debye,
Dept.of Chemistry,
Cornell University
Ithaca, New York 14850 (USA)

our ref.95/lmv

Dear Professor Debye:

Thank you for your kind letter of Feb.21, and for kindly inviting me to participate with one lecture in the Robert A.Welch Conference on "Polymers".

I would have been much pleased to accept it, had my state of health permitted me to do so. As a matter of fact, I have been compelled to give up other invitations, because I expect I shall not be able to make long journeys.

In case you desire the participation of one of my co-workers, I indicate you their names and the topics they are specialists in:

- Prof.P.Corradini: Crystal structure and conformation of stereoregular polymers.
- Prof.I.Pasquon: Kinetics and mechanism of the stereo= specific polymerization of α -olefins.
- Prof.L.Porri: Stereospecific polymerization and copoly= merization of diolefins.
- Prof.M.Farina: The asymmetric synthesis of optically aetive polymers.

I have not yet asked my co-workers whether they expect to be able to accept your possible invitation. I will do so when you tell me which is the most suitable topic for the Conference and if you think it convenient that I may be replaced by one of them.

Kindest personal regards.

G.Natta

November 23, 1965

Dr. P. Dreyfuss
Goodrich Research Center
Brecksville - Ohio - USA

Dear Dr. Dreyfuss,

I have read in the Program of the Symposium on "Ring Opening Polymerization" of the Polytechnic Institute of Brooklyn, of your communication on "Polymerization of Tetrahydrofuran".

I would mostly appreciate receiving a reprint or a preprint of your paper.

With my best thanks, accept my kind regards.

Giulio Natta

May 11, 1966

Prof.Paul Doty,
Dept.of Chemistry,
Harvard University,
12 Oxford Street,
Cambridge 38, Mass. (U.S.A.)

our ref.237/lmv

Dear Professor Doty:

Thank you very much for your letter of April 28, from which I learn that you have oriented your work towards fields of research differing from those my young chemists would like to work on.

Wishing you graat success in your activity, I send you kindest regards.

Giulio Natta

HARVARD UNIVERSITY

DEPARTMENT OF CHEMISTRY

12 Oxford Street
Cambridge 38, Massachusetts, U.S.A.

April 28, 1966

Faire Sam
Dr. Dante informare

VIA AIR MAIL

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milan, Italy

237

Dear Professor Natta:

I appreciated your letter of a few weeks ago concerning the possibility of one of your young co-workers coming here. I wish very much that I could provide the accommodation for him that is within his range of normal expectation. However, during the last two years I have been reorienting my own work towards such biological goals that I fear there is no longer any contact with macromolecular research in synthetic polymers. We are, for example, concentrating on the molecular events following fertilization and the role of RNA in antibody synthesis. I would be less than frank if I did not interpret this as meaning that we are moving too far apart to provide to one of your colleagues the kind of experience from which he would profit in building his career.

With regret, I am

Sincerely yours,

Paul Doty

Paul Doty

PD/jw

March 25, 1966

Prof.Paul Doty,
University of Harvard,
Dept.of Chemistry
12 Oxford Street,
Cambridge 38, Mass (USA)

our ref.143/lmv

Dear Professor Doty:

I wish to inform you that some young chemists, who have been working for a couple of years at this Institute in the field of macromolecular chemistry, made an application to the United States Information Service to obtain a grant covering travel expenses to the States.

However, subsidies are not available as to their stay in the United States. If your budget for 1966-67 considers the possibility of granting post-doctorate fellowships to young researchers, who may work under your direction on a subject of your choice, my young co-workers would be very pleased to be accepted in your Institute.

I would mostly appreciate your letting me know, at your earliest convenience, your mind on this matter on principle and information on the possible topics of research. More precise agreements will be possibly reached later.

Thanking you very much in advance, I send you kindest personal regards.

Giulio Natta

Corbetta
Flory

May 13, 1966

Mr. E.S. IRONS
1000 Connecticut Avenue
WASHINGTON 36 D.C.

RP/cg

Copy to Mr.Oscar Cox
Washington -

Re : Differences of opinion between Prof. Natta and Prof.Flory
on certain aspects of the configuration of polyolefins.

Dear Mr. Irons,

Upon his return to Milano, Dr. Ferrari reporting on his conversations with you, mentioned to me that you had been informed that an exchange of correspondence had taken place between Natta and Flory on the subject in Re, and that a difference of opinion existed between the two scientists regarding certain structural aspects of polyolefins.

As far as I was able to ascertain, the facts appear to be as follows.
In late February, beginning of March 1963, Prof. Corradini, who, at the time polypropylene was first studied, was an assistant to Prof. Natta and was the one who first studied the structure of the crystalline polymer by X-rays, visited Prof. Flory in Stanford.
Flory was interested in having a sample of isotactic polypentene-1, in connection with some structural studies he was carrying out. Corradini reported this to Natta and a correspondence on the subject ensued, starting with a letter by Natta of March 12, followed by transmission to Flory of crystalline polypentene samples on May 13 and June 17 and of a sample of polypentene "as amorphous as possible" on October 16, 1963.

An exchange of reprints of various papers on structural studies, in printed or manuscript form, took also place, as evidenced by the correspondence of which we enclose copies.

?.

On October 7, 1965 Flory sent to Natta manuscripts of two papers to be printed in the J. of the American Chemical Society and of a brief note intended for publication in "Polymer Letters".

Copies of the three printed papers are enclosed. (J.A.C.S. 88 (1966) pages 631-650; Polymer Letters -Vol.3 No. 12 - Dec. 1965, 973-76).

In these papers, Flory, apparently on the basis of experimental work carried out on polybutene samples obtained in the U.S. and on polypentene samples sent to him from Milano, reached certain conclusions to the effect that some results of that experimental work could only be explained, in his opinion, assuming that "isotactic" polymers contain in excess of 5% and up to 10% of heterotactic units (see particularly "Discussion", pages 648-49 of J.A.C.S. and paper in "Polymer Letters").
This appears to signify that, according to Flory's opinion, an isotactic chain should present relatively frequent inversion of the sterical configuration of the monomeric units, thus :

... ddd ... ddlll ... lldd... dddl... ll...

the percentages given referring to the number of units , per hundred units in the chain, that are not comprised between two units of a same configuration.

As expressed in Natta's letter to Flory of Dec. 20, 1965, Natta and his school fully disagree with these views. Natta's suggestion that the Flory paper should be modified on that point apparently was not followed. No reply was given by Flory to that letter and apparently there was no further exchange of correspondence.

This seems to be all there is to it, albeit boiled down to very simple terms. My impression is that this difference of opinion should not be taken too seriously, from a practical standpoint.
This also in consideration of the fact that in all our prosecution and in the allowed patents our definition of isotactic macromolecules has always clearly taken into

consideration that possibility; an isotactic macromolecule was defined as one in which at least for long portions of the main chain all of the asymmetric carbon atoms have the same steric configuration, thus allowing for the possibility of inversions, and of successions of "long" stretches of units with a same configuration followed by "long" stretches of units with the opposite configuration;

However, you may wish to consult Prof. Szwarc or other experts on our side on this.

As to your suggestion that we should try to retain Prof. Flory in some consulting capacity, I fully agree with it, and only doubt that he is, in general, inclined to accept such offers. Once you will have reviewed the enclosed material, we can consider whether we actually should approach Prof. Flory and in case the best way of doing it.

Yours sincerely,

(R. Pirani)

Encl.

Fare Cartellone Flory

29.7.1966

Egr.Dr.R.Pirani
Servizio Brevetti
Società Montecatini-Edison
Se de

ns.rif.N.416/rl

c.p.c. Prof.Paolo Corradini
Istituto Chimico Università
Napoli - Via Mezzocannone 4

Egregio Dottore,

ho ricevuto copia della lettera inviata dal Prof.Corradini, relativa all'ipotesi del Prof.Flory.

Approvo il programma del Prof.Corradini e desidero informarLa che i Proff. Allegra, Moraglio e Zambelli, che stanno lavorando su certi aspetti dello stesso campo, hanno in programma di completare le loro ricerche e di pubblicare i loro risultati o in lavori con il Prof.Corradini, oppure in lavori separati, secondo accordi che potranno prendere con il Prof.Corradini stesso.
In particolare, il Prof.Allegra ha esaminato la possibilità che nel reticolo cristallino del polimero isotattico possano essere contenute irregolarità configurazionali di qualunque tipo. Risulterebbe, d'accordo con Corradini, che il reticolo cristallino non può assolutamente contenere delle irregolarità del tipo di quello proposto da Flory, cioè di tipo ...LLLLDDDD. . . mentre non si può escludere che contenga irregolarità del tipo ..DDDDLDDDD. Bisogna però esaminare se l'accettare irregolarità di questo tipo può nuocere alla validità dei nostri brevetti.
Zambelli si propone di controllare sperimentalmente, mediante analisi NMR, dei polimeri dei CD_3-CD=CHD (cis e trans) e del CD_3-CD=CH_2, la presenza effettiva o meno di irregolarità di qualsiasi tipo nel polipropilene isotattico altamente cristallino. Questo esame di NMR consentirà molto probabilmente di avere dati diretti e univocamente interpretabili e di stabilire in modo indiscutibile la costituzione sterica dei polimeri. Così si potrebbe evitare di prendere in considerazione le proposte di Corradini circa il calcolo degli spettri NMR, che appare difficilmente concretabile per il punto che più ci interessa, e forse meno sicuro nelle conclusioni.

./.

29.7.1966

2-

Moraglio si propone di completare misure per polimeri isotattici del coefficiente di temperatura della distanza quadratica media, che Flory assume positivo o nullo, mentre le nostre prime misure ci dicono che è negativo, e pertanto in migliore accordo con i calcoli eseguiti sul polimero isotattico senza difetti.

I migliori saluti.

Giulio Natta

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

COLLEGE OF LIBERAL ARTS
DEPARTMENT OF CHEMISTRY

25 MAG
280

May 17, 1966

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinici, 32
Milano, Italy

Dear Professor Natta:

Thanks very much for your recommendation of Dr. Fabbro. I shall immediately make arrangements to appoint him as a Post Doctorate Research Associate, and am looking forward to having him in my group next year. I am very greatful for recommending him to me.

Sincerely yours,

C S Marvel

C. S. Marvel

CSM/lsh

Copie à Farine
impression

26/5

9x

Cartella Flory - 29/8/66

Egr.Dott.R.Pirani
BREV
Montecatini-Edison
Sede

ns.rif.202I/lmv

Caro Dottore,

Ricevo la Sua lettera del 2/8 e desidero esporLe alcune considerazioni riguardo alle osservazioni della ESSO, riportate da Lei in fondo alla lettera scritta a Corradini.

Per quanto una determinazione precisa della quantità di sequenze isotattiche presenti in un polimero possa presentare notevoli difficoltà anche oggi, desidero segnalare come la struttura isotattica sia stata determinata da noi con completa sicurezza mediante esame ai raggi X già dal 1954 e che tutti i lavori successivi hanno confermato le attribuzioni del polimero sostanzialmente isotattico e prevalentemente isotattico, in base al frazionamento con solventi selettivi ed alle misure di cristallinità delle frazioni diverse osservate ai raggi X delle frazioni diversamente solubili dei polimeri ad alto peso molecolare. La sintesi successivamente fatta da noi di polimeri cristallini a struttura sindiotattica mediante impiego di catalizzatori diversi conferma che i polimeri definiti come isotattici già nel 1954 non contenevano cristalli aventi struttura sindiotattica e che perciò tutta la cristallinità di tali polimeri è dovuta esclusivamente alla presenza di lunghe catene a struttura isotattica.
Il fatto che gli inventori dei primi brevetti siano riusciti a stabilire in modo inequivocabile la struttura isotattica dei polimeri da loro descritti rappresenta una dimostrazione dell'originalità e dell'importanza della loro scoperta, malgrado le difficoltà che si avevano in quell'epoca.

Molti cordiali saluti.

G.Natta

Ans

June 23, 1966

Prof.P.J.Flory
Dept.of Chemistry,
Stanford University
Stanford, California (U.S.A.)

our ref.320/lmv

Dear Professor Flory:

Thank you very much for your prompt answer to my letter. I regret that you were unable to accept the task offered by Montecatini, but I do perfectly understand your reasons.

With kindest regards,

Giulio Natta

Fw

May 30, 1966

Prof.
P.J. FLORY
Department of Chemistry
Stanford University
Stanford, California, U.S.A.

Our ref.: N291/rl

Dear Professor Flory,

In recent years, as you probably heard, one of the early U.S. patent applications in the field of polypropylene assigned by me and my co-inventors to Montecatini has been involved in an interference proceeding with other U.S. patent applications of Phillips Petroleum Co., Standard Oil of Indiana and Du Pont.

The interference "count" which is in controversy covers a normally solid propylene polymer containing a substantial amount of crystallinity, and does not involve steric structure aspects.

It is part of such interference proceedings that the various parties present proofs of their alleged invention in a so-called testimony period, during which expert witnesses are examined.

After the other parties involved in this particular interference proceeding have presented their testimony-in-chief, it is now the turn for Montecatini to do the same.

It is desirable in these circumstances that independent U.S. experts be presented also by foreign Companies, and Montecatini has been looking for such experts in the various fields. Prof. Szwarc will be Montecatini's polymerization expert, while Prof. Krimm will be their expert in the field of I.R. spectra.

Montecatini's lawyers now feel that they will need also an expert in the field of X-ray and crystallinity and ask me to find out whether you would be willing to act in such capacity.

As far as I know, this would involve a study on your part of the essential part of the records presented by the other parties in the interference, and of the possible ways in which those records could be criticized and confuted during the testimony period for Montecat which is now scheduled to take place during the month of July next.

The testimony involves examination of the expert witness by the par retaining him and cross-examination by the other parties.

May 30, 1966

Given the fact that the testimony period is scheduled for July, the matter is quite urgent. I would ask you therefore to let me know by cable whether or not you are in a position to act in behalf of Montecatini (and I sincerely hope you are), so that details may be arranged promptly.

I will be very grateful to you if you will favorably consider my suggestion: the matter is of considerable importance to Montecatini and to me, and I feel that the intervention of a man of your authority on our side would be of substantial importance.

Thanking you for your kind attention to this and waiting to hear from you, I am

Sincerely yours,

(Giulio Natta)

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

COLLEGE OF LIBERAL ARTS
DEPARTMENT OF CHEMISTRY

March 31, 1966

Dr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

165

Dear Dr. Natta:

Thank you very much for your letter of the 25th. I do definitely have one place in my laboratory open next year for a post doctorate man, and I would be very happy to have one from your laboratory. The fellowships which are available are Research Associateships paying $550.00 a month for one year, and carry one month's vacation in that time. The position will be open by July 1, but if that's earlier than your candidate would want to come to America, this appointment could be delayed until such time as is mutually agreeable.

There is a possibility that I may have two positions open, but I have one of them offered now, and cannot make the commitment for more than the one until I hear from the candiate I have offered the job to.

With this letter I am enclosing an application form for a position here, and suggest that you have the man fill it out, return to me and also ask that two letters of recommendation be sent, which are necessary for the University redtape.

The work in my laboratory, which this man would do, could be either with polymerization of monomers derived from agriculture products or work in the field of thermally stable polymers. If your candidate has a choice, I'll appreciate him letting me know, so that I will save the right field for him.

Thank you again for telling me about your coworkers who want to come. I am sorry I cannot be definite about two positions, but I can be about one.

Best regards.

Sincerely,

CSMarvel

C. S. Marvel

CSM/lsh
Enc.

MOTOWN RECORD CORPORATION
2648 WEST GRAND BOULEVARD
DETROIT, MICHIGAN 48208
USA
871-3340

AUGUST 3, 1966

DR. GIULIO NATTA
54 VIA MARIO PAGANO
MILAN ITALY

rimato 29/9/1966

DEAR DR. NATTA;

WOULD YOU PLEASE BE SO KIND AS TO SEND ME YOUR AUTOGRAPHED PICTURE AND/OR AUTOGRAPH FOR MY COLLECTION OF NOBEL PRIZE WINNERS?

I WOULD BE GREATLY HONORED AND MOST APPRECIATIVE.

PLEASE ACCEPT MY SINCEREST BEST WISHES FOR YOUR CONTINUED SUCCESS.

THANK YOU VERY MUCH.

SINCERELY YOURS,
AL ABRAMS
PRESS RELATIONS

March 28, 1966

Prof.M.L.Huggins,
Stanford Research Institute
Menlo Park,
California (USA)

Dear Professor Huggins:

I wish to thank you very much for kindly sending me the reprints of your paper which I will read with much interest.

Sincerely yours,

G.Natta

May 27, 1966

Prof.C.S.Marvel,
Dept. of Chemistry,
College of Liberal Arts,
The University of Arizona,
Tucson, Arizona 85721 (U.S.A.)

our ref.280/lmv

Dear doctor Marvel:

Thank you very much for your letter of May 17 and for the kind interest you have taken in Dr.Fabbro position. I am very grateful for your concern.

With kindest regards,

Sincerely yours,

Giulio Natta

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 12194
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709

CAMILLE DREYFUS LABORATORY

635

November 30, 1966

Prof. G. Natta
Instituto Chimica Industriale Politecnico
Centro Nazionale di Chimica delle
Macromolecole del C.N.R.
Sezione I, Milan
Italy

Dear Prof. Natta:

I am sending you under separate cover the book "Polymerization by Organometallic Compounds" by Leo Reich and A. Schindler. I take great pleasure in presenting you the book with the compliments of the Camille Dreyfus Laboratory.

With best regards,

Sincerely yours,

A. Peterlin

A. Peterlin
Director

AP/nfr

AREA CODE 919 DURHAM 549-8161 RALEIGH 834-3661 CHAPEL HILL 929-1144

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 12194
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709

CAMILLE DREYFUS LABORATORY

October 17, 1966

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

After my return home I want to thank you and Professor Danusso for all your kindness during my stay in Milano. I enormously enjoyed talking with your people and discussing their excellent work with them. I was also very happy that I could talk about our work on time and gradient dependence of viscosity of polymer solutions.

With best regards to you and to your wife,

Sincerely yours,

A. Peterlin
Director

AP/nfr

AREA CODE 919 DURHAM 549-8161 RALEIGH 834-3661 CHAPEL HILL 929-1144

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 490
DURHAM, NORTH CAROLINA

CAMILLE DREYFUS LABORATORY

August 1, 1966

Prof. Giulio Natta
Istituto di Chimica Industriale
del Politecnico di Milano
Centro Nazionale di Chimica delle
Macromolecole del C.N.R., Sezione I
Milano, Italy

Dear Prof. Natta:

According to my present plans I intend to be in Milano on September 19 and would very much like to visit your place and talk with your people about problems of mutual interest. I suspect that you will be away at that time attending the IUPAC Symposium in Japan, but I still hope that some of your co-workers, for instance, Prof. Danusso, will be in the laboratory.

If you are interested, I could also present a seminar on one of the following topics:

1) Time Effects in Viscosity of Polymer Solutions.

2) Gradient Dependence of Intrinsic Viscosity.

3) Frequency Dependence of Viscosity and Birefringence in Polymer Solutions.

4) Plastic Deformation of Polyethylene.

5) Dielectric Properties of Drawn Polymers.

Looking forward for news from you, I am with best regards to you and your wife,

Sincerely yours,

A. Peterlin

A. Peterlin
Director

AP/nfr

POLYMER RESEARCH INSTITUTE
C. G. OVERBERGER, DIRECTOR

November 29, 1966

630

Dr. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Dr. Natta:

I am writing to ask you to accept a three-year appointment as a member of the Advisory Board for Part A-1 (Polymer Chemistry) of the Journal of Polymer Science, beginning January 1, 1967.

You may be aware that about two years ago members of the Division of Polymer Chemistry of the American Chemical Society, the Division of High Polymer Physics of the American Physical Society, and the Committee on Macromolecular Chemistry of the National Academy of Sciences, made suggestions for improving the service that the Journal renders to polymer research. Subsequently, with the encouragement of some of the individuals who advanced these suggestions, Dr. T. G. Fox was invited to serve as one of the editors of the Journal.

In accordance with recommendations by interested members of the polymer community, the Journal of Polymer Science, Part A, has now been subdivided into two parts: Part A-1 on polymer chemistry, edited by me with Dr. E. Pearce as Assistant Editor; Part A-2 on physics and physical chemistry, edited by Dr. T. G. Fox with Drs. E. F. Casassa and H. Markovitz of Mellon Institute as the Assistant Editors. You may also be aware that it is our policy to have each submitted manuscript reviewed by two referees at least, and further, to speed up the publication process in order to hold to a minimum the time between acceptance of the paper and its appearance.

As Editor of Part A-1, I am aware of the great increase in the effort devoted to the many interesting, challenging, questions in the expanding field broadly described as polymer chemistry. We believe it should be our role to serve as a medium for publication of significant advances in all aspects

-continued-

of the field. We believe it important to maintain high standards, clearly stated, so that rapid and effective dissemination of new knowledge is achieved in a way that minimized the difficulty every one of us has in keeping abreast of his own research field and achieving the essential awareness of developments in related specialties.

In endeavoring to meet these goals and, indeed, to better define them, the editors need the advice of a cross-section of the international community of intellectual leaders in the very broad area within the scope of Part A-1 of the Journal. It is our purpose to establish by three-year appointments to the Advisory Board, which we are inviting you to join, a group of advisors who will actively participate in the affairs of the Journal. We plan to rely on you individually for counsel in some of the more difficult decisions on specific manuscripts. We propose to request from time to time your general review of the quality of material that we have published; and we shall, of course, seek your advice on overall goals and standards of publication. Occasionally, we may solicit your help in framing editorials on the basic attitudes and approaches guiding research and publication, both generally and in specific technical areas. We invite at this time any comments or suggestions you may wish to offer on the functions of the Advisory Board.

I hope that you will be able to help us in this effort to assure that the Journal of Polymer Science fills important needs in the best way possible, and I look forward to hearing from you soon.

Yours very truly,

C. G. Overberger
Editor - Part A-1
Journal of Polymer Science

CGO/eh

POLYMER RESEARCH INSTITUTE
C. G. OVERBERGER, DIRECTOR

July 12, 1966

391

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Plazza Leonardo Da Vinci 32
Milano, Italia

Dear Dr. Natta:

Thank you very much for your letter of July 8, concerning the visit of Professor Giuseppe Zerbi in August of this year, and the possibility of his lecturing at the Polytechnic Institute of Brooklyn.

The month of August is largely a vacation month. Would Professor Zerbi be available after September 6 ? As soon as I hear about the schedule of Professor Zerbi, I will arrange a date for him in September to lecture at the PIB and also contact some industrial laboratories.

With kindest regards,

Sincerely,

C. G. Overberger
Director--Polymer Research Institute

cgo-h

airmail

CHARLES G. OVERBERGER
DEAN OF SCIENCE
DIRECTOR, POLYMER RESEARCH INSTITUTE

March 30, 1966

163

Professor Giulio Natta
c/o Istituto di Chimica Industriale del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italia

Dear Professor Natta:

Thank you for your letter of March 25, concerning the awarding of postdoctoral fellowships to several of your young researchers for the academic year 1966-67.

Unfortunately all of our openings for the academic year 1966-67 have now been filled and unless we receive additional funds, I do not think it will be possible to consider candidates until February '67 or, even better, September '67. Would your candidates be interested in being considered for these later dates ? Si

In regard to your other letter concerning Professor Allegra, I will be writing you separately in about a week after checking a number of matters.

It was good to hear from you. With kindest regards,

Sincerely,

C. G. Overberger

Dean of Science
Director-Polymer Research Institute

cgo-h
airmail

March 25, 1966

Prof.C.S.Marvel,
College of Liberal Arts,
Dept.of Chemistry,
University of Arizona,
Tucson, Arizona (USA)

our ref.143/lmv

Dear Professor Marvel:

I wish to inform you that some young chemists, who have been working for a couple of years at this Institute in the field of macromolecular chemistry, made an application to the United States Information Service to obtain a grant covering travel expenses to the States.

However, subsidies are not available as to their stay in the United States. If your budget for 1966-67 considers the possibility of granting post-doctorate fellowships to young researchers, who may work under your direction on a subject of your choice, my young co-workers would be very pleased to be accepted in your Institute.

I would mostly appreciate your letting me know, at your earliest convenience, your mind on this matter on principle and information on the possible topics of research. More precise agreements will be possibly reached later.

Thanking you very much in advance, I send you kindest personal regards.

Giulio Natta

April 27, 1966

Dr.C.S.Marvel,
The University of Arizona
Dept.of Chemistry,
College of Liberal Arts,
Tucson, Arizona 85721 (U.S.A.)

our ref.165/lmv

Dear doctor Marvel:

Thank you very much indeed for your kind letter of March 31 and for offering a fellowship to one of my students.
My delay in answering is due to a long mail-service strike.

Dr.Domenico FABBRO, who will come to Tucson, has been working for two years on the asymmetric synthesis of polymers: now he would like to study high-temperature resistant polymers, as your works in this field are very well known.

As to his journey to the U.S., dr.Fabbro might leave Italy after this Summer, as soon as he has completed a research program now in progress.

The application form will be filled by dr.Fabbro and returned to you very soon. He shall also write to you to get further information.

Thanking you very much again, I send you kindest personal regards.

Giulio Natta

27 Aprile 1966

Spett. U.S.I.S.
Segreteria della Commissione
Americana per glisscambi
culturali con l'Italia
Via Barberini 86

R O M A

Attesto che il posto offerto dal Prof. Marvel per una fellowship presso l'University of Arizona, College of Liberal Arts, Tucson, Arizona, verrà occupato dal Dr. Domenico Fabbro, che lavora da due anni presso questo Istituto.

Distinti saluti.

Il Direttore dell'Istituto
(Giulio Natta)

10 marzo 1966

Il dr.Domenico Fabbro svolge attualmente delle ricerche scientifiche presso l'Istituto di Chimica Industriale del Politecnico, nel quadro delle attività del Centro Nazionale di Chimica delle Macromolecole del C.N.R., da me diretto.

Il dr.Fabbro ha dimostrato di possedere notevoli attitudini per la ricerca, sia sul piano sperimentale che interpretativo: lo ritengo perciò meritevole di considerazione per l'assegnazione di una borsa di viaggio per gli U.S.A.

Distinti saluti.

Giulio Natta

May 10, 1966

The University of Arizona
College of Liberal Arts,
Dept. of Chemistry,
Tucson, Arizona 85721

Dr.Domenico FABBRO has been developing scientific research at the Industrial Chemistry Dept. of the Polytechnic Institute of Milan, with a grant of the National Center for Macromolecular Chemistry of the Italian National Council for Research.

Dr.Fabbro has shown a real turn for research both from the experimental and interpretative standpoints. Therefore, I think he is worthy to be considered for a grant covering his travel expenses to the United States.

Giulio Natta
Director

16 febbraio 1966

Egr.Ing.Andrea Pavan
Research Triangle Institute
P.O.Box 490
Durham, North Carolina (U.S.A.)

Caro Pavan,

La ringrazio vivamente per il suo gentile telegramma in occasione delle mia nomina a membro straniero dell'Accademia delle Scienze Sovietica.

Desidero farle molti auguri per ilssuo soggiorno negli Stati Uniti.

Molti saluti,

Giulio Natta

March 25, 1966

Prof.C.C.Price,
University of Pennsylvania,
Philadelphia, Pennsylvania 19104
(USA)

our ref.143/lmv

Dear Professor Price:

I wish to inform you that some young chemists, who have been working for a couple of years at this Institute in the field of macromolecular chemistry, made an application to the United States Information Service to obtain a grant covering travel expenses to the States.

However, subsidies are not available as to their stay in the United States. If your budget for 1966-67 considers the possibility of granting post-doctorate fellowships to young researchers, who may work under your direction on a subject of your choice, my young co-workers would be very pleased to be accepted in your Institute.

I would mostly appreciate your letting me know, at your earliest convenience, your mind on this matter on principle and information on the possible topics of research. More precise agreements will be possible reached later.

Thanking you very much in advance, I send you kindest personal regards.

Giulio Natta

Dec.12, 1966

Dr.A.Peterlin, Director
Camille Dreyfus Laboratory,
Research Triangle Institute,
Post Office Box 12194,
Research Triangle Park,
North Carolina 27709 (U.S.A.)

our ref.635/lmv

Dear doctor Peterlin:

Thank you very much for kindly sending me the book "Polymerization by Organometallic Compounds", which I will read with great interest.

With kindest personal regards,

Giulio Natta

JOURNAL OF POLYMER SCIENCE

Ann Pol. Brooklyn

March 10, 1966

133

Professor G. Natta
Politicnico de Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Sir:

Porri

We are enclosing with this letter a manuscript (author and title given below) which has been submitted for publication in the JOURNAL OF POLYMER SCIENCE.

We would appreciate receiving your comments on this manuscript and your opinion regarding its suitability for publication in the JOURNAL OF POLYMER SCIENCE. Since we are trying to hold the interval between submission and publication dates down to a minimum, I would be very grateful if you could kindly return this manuscript, together with two copies of your comments (one unsigned), to me within the next two weeks. A self-addressed stamped envelope is also enclosed for your convenience.

AUTHOR(S): **Kei Matsuzaki and Tamio Yasukawa**

TITLE:
(1) **Mechanism of Stereoregular Polymerization of Butadiene by Homogeneous Ziegler-Natta catalysts. I. The Effects of the Species of Transition Metals.**

(2) **II. The Effects of the Nature of Bases or Halogens.**

Very sincerely yours,

C. G. Overberger/ef

C. G. Overberger
Editor

Enc.

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

Dec.12, 1966

Dr.C.G.Overberger, Director
Polymer Research Institute,
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

our ref.630/lmv

Dear doctor Overberger:

This is in reply to your letter of Nov.29, 1966. I am glad to accept your invitation to become a member of the Advisory Board for Part A-1 of the Journal of Polymer Science. However, the time I can devote to that task has necessarily to be consistent with the little free time I still have at my disposal from my many engagements.

With kindest regards.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201

CHARLES G. OVERBERGER
DEAN OF SCIENCE
DIRECTOR, POLYMER RESEARCH INSTITUTE

July 25, 1966

Professor Giuseppe Zerbi
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, I T A L I A

Dear Professor Zerbi:

Thank you for your letter of July 18, concerning your visit to the States and a possible trip to Brooklyn the week of September 6-10. I am going to suggest that you visit us on Thursday - September 8 - and present your lecture.

It is a busy time for us; so I would suggest that you plan to come to my office at noon, have lunch with us, and present your lecture at two o'clock.

We are looking forward to your visit.

With kindest regards,

Sincerely,

C. G. Overberger

Dean of Science
Director--Polymer Research Institute

cgo-h

CC -
Professor Giulio Natta

July 8, 1966

Prof.C.G.Overberger,
Dept.of Chemistry
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn 1, New York (U.S.A.)

our ref.381/lmv

Dear Professor Overberger:

I wish to inform you that one of my collaborators, Prof.Giuseppe ZERBI, a specialist in the field of vibrational spectroscopy of high polymers, will visit the United States next August in order to attend the Gordon Conference on Infrared Spectroscopy, on Aug.22-27, 1966.

Prof.Zerbi has done very extensive works (both theoretical and experimental) in the field of molecular dynamics of polymer molecules; he has carried out several normal coordinate calculations and studied stereoregularities, structures and conformations of polymers and copolymers by infrared.

Prof.Zerbi should like to visit your Institute. In the case you think interesting and useful that he gives a seminar at Brooklyn on his works, Prof.Zerbi will be very glad to do so.

Moreover, if you think that his works may be of interest to some industrial American laboratories, I should be very grateful if you could inform the right people.

With best thanks and regards,

Giulio Natta

May 9, 1966

Prof.C.G.Overberger, Dean of Scie
Director-Polymer Research Institu
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

our ref.242/lmv

Dear Professor Overberger:

I wish to thank you very much for the kind care you took in arranging the tour in the States of Dr.Allegra. I am sure that your letter of introduction will outstandingly help him.

With kindest regards.

Giulio Natta

April 28, 1966

Prof.C.G.Overberger,
Dean of Science
Director Polymer Research Institu
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn, New York 11201 (USA)

our ref.163/lmv

Dear Professor Overberger:

Thank you for your kind letter of March 30, 1966. I believe that some of my young researchers will certainly be interested in being considered for a fellowship starting from February or September 1967. Therefore, it will be very kind of you to let me know your future possible openings in due time.

Thank you very much again, and kindest personal regards.

Giulio Natta

Ann

March 25, 1966

Prof.C.G.Overberger,
Dean of Science,
Director Polymer Research Insti
Polytechnic Institute of Brookl
333 Jay Street,
Brooklyn 1, N.Y. - USA -

our ref.143/lmv

Dear Professor Overberger:

I wish to inform you that some young chemists, who have been working for a couple of years at this Institute in the field of macromolecular chemistry, made an application to the United States Information Service to obtain a grant covering travel expenses to the States.

However, subsidies are not available as to their stay in the United States. If your budget for 1966-67 considers the possibility of granting post-doctorate fellowships to young researchers, who may work under your direction on a subject of your choice, my young co-workers would be very pleased to be accepted in your Institute.

I would mostly appreciate your letting me know, at your earliest convenience, your mind on this matter on principle and information on the possible topics of research. More precise agreements will be possibly reached later.

Thanking you very much in advance, I send you kindest personal regards,

Giulio Natta

March 24, 1966

Prof.C.G.Overberger
Dean of Science, Director
Polymer Research Institute
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn 1, N.Y. (U.S.A.)

our ref. 142/lmv

Dear Professor Overberger:

As dr.Goodman probably told you, my co-worker, Prof.G.Allegra, who is specialized in the x-ray study of the lattice structure of macromolecules and in the conformational study of polymers in solution, has been invited by dr.Goodman to hold a seminar at the Polytechnic Institute of Brooklyn on the thermodynamic statistical study of copolymers in solution.

If you think it convenient that dr.Allegra delivers some lectures either on the same topic or on inclusion compounds of monomeric and polymeric substances in perhydrotriphenylene, I would ask you to make some proposals to University and industrial laboratories.

Dr.Allegra will come to the States nearly on June 10 and will stay there until the beginning of July, when he has to participate as a speaker in the Gordon Conference on Polymers.

Thanking you very much in advance, I send you kindest personal regards.

Giulio Natta

P.S. The work on inclusion compounds completes the research already published in a preliminary form, a reprint of which is being sent to you. I also send you a copy of the paper on the thermodynamic statistical calculation of copolymers in solution presented by dr.Allegra at the International Symposium on Macromolecular Chemistry, Prague 1965.

Sept. 2, 1966

Prof. A. Peterlin, Director
Camille Dreyfus Lb.
Research Triangle Institute
P.O.Box 490
Durham, North Carolina (USA)

our ref.439/lmv

Dear Professor Peterlin:

Thank you for your letter of Aug.1, from which I learn that you will come to Milan on Sept.19.

As I shall not participate in the IUPAC Congress in Japan, I do hope to be in Milan when you come and to have the pleasure to meet you. In any case, my co-workers, and in particular Prof.Danusso, will be very glad, if by chance I am absent, to discuss problems of mutual interest with you.

As several co-workers of mine will be absent in that period, I do not think it convenient to arrange your delivering a lecture. However, as the topics you propose, in particular topic No. 1 and No.5, are of great interest to us, I would be very glad if you kindly give an informal seminar to a limited audience.

Hoping to meet you in Milan soon, I send you kindest personal regards.

Giulio Natta

OFFICE OF THE PRESIDENT

January 10, 1966

65

Dr. Giulio Natta
Polytechnic Institute of Milan
Director of the Industrial Chemistry
Research Center
Milan, Italy

Dear Dr. Natta:

Dr. Leland Haworth, Director of the National Science Foundation, announced on November 3, 1965 that the Polytechnic had been selected to receive $3.332 million. This major Science Development Grant, one of only 13 thus far awarded throughout the country, he stated "is intended to help a limited number of already good institutions advance rapidly to a higher level of quality in an appreciable segment of their science activities." The N.S.F. release went on to say that "the Polytechnic Institute of Brooklyn intends to become a major technological university by increasing its emphasis on graduate and full-time study, adding new faculty, expanding the visiting scientists program and broadening the sabbatical program. It intends to build upon its present strength in chemistry and electronics and continue to meet the need for part-time study."

The National Science Foundation, in providing support for the attainment of "academic excellence, expects that the Institute will both seek and obtain support in filling equally pressing needs for more classrooms; improved library facilities; as well as dormitories, a student center, and a gymnasium, none of which now exist. While we have not asked our various constituents for major support in the past, I am confident that the National Science Foundation has not misplaced its confidence in the Polytechnic's ability to attract growing support from our own alumni, our friends, other foundations and from industry.

As we build toward the concept of a Technological University, our two most immediate goals are the creation of a much needed Academic Building on our present Jay Street site, and the addition of a new Dean to provide vigor to build our young division of Humanities.

We are continuing to bring our case and accomplishment before enlightened industry, the national and state agencies, and a growing number of Foundations. These efforts in 1964-65 resulted in gifts exceeding $1.5 million, more than double the preceding year.

I am reassured of our ultimate success when I view the accomplishments of the recent past. As one of a group of our most distinguished Honorary Doctorates, your support and counsel are ever sustaining.

Sincerely,

Ernst Weber
President

EW:aeh

UNIVERSITY of PENNSYLVANIA
PHILADELPHIA 4, PENNSYLVANIA

Department of Chemistry

May 4, 1966

251

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Professor Natta:

The paper on head-to-head units in polypropylene oxide has been submitted to the Journal of Polymer Science about two weeks ago, but I have not yet heard whether it is accepted; I presume it will be!

Your letter indicating one of your co-workers might be interested in coming to work with me was received with much appreciation. It would be a great privilege to have someone from your laboratory here and he would indeed be most welcome. Unfortunately, for next year I have only one postdoctoral research position available and it has been committed for sometime to a man from Professor Tsuruta's laboratory in Tokyo.

During my year as President of the American Chemical Society I am afraid I had little time to do the work necessary to secure all the support needed for my research. Perhaps by 1967 this problem can be resolved and, if so, I will let you know!

Best wishes!

Sincerely yours,

Charles C. Price
Professor of Chemistry

CCP:db

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4, PENNSYLVANIA

Department of Chemistry

April 12, 1966

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

Enclosed is a manuscript which may be of some interest to you. We discovered this evidence for head-to-head units in non-crystalline PPO from stereoselective catalysts just before your 1965 publication indicating the same possibility for polypropylene.

Your suggestion to have one of your people come to work in my laboratory is indeed much appreciated. As of now, I have no funds available for any financial support of postdoctoral research assistant for next year. With my duties as ACS President and University Department Chairman now behind me, I hope to rebuild my research grant support, but it will no doubt require another year!

My best wishes to you and your wife!

Sincerely yours,

Charles C. Price
Professor of Chemistry

CCP:db
Enc.

28 giugno

A. Ravve, Ph.D.
5310 N. California
Chicago, Ill., 60625
U.S.A.

May 17, 1966

Gazzetta Chimica Italiana
Viale Liegi 48
Rome, Italy

Gentlemen:

I have written a textbook of organic-polymer chemistry which is now being readied for publication by the publishing firm of Marcel Dekker Inc., New York, U.S.A. In this book I would like to show a Table of Crystallinity of Polymers, from a publication by Dr. G. Natta et al., in your Journal, Vol. 87, p. 570, 1957. This is a request for permission to reproduce this table. Proper credit and references will, of course, be given.

216.

Yours very truly,

A. Ravve

A. Ravve

JOURNAL OF POLYMER SCIENCE

J. P. S. Part A Date: March 10, 1966

Author: Kei Matsuzaki and Tamio Yasukawa

Title: Mechanism of Stereoregular Polymerization of Butadiene by Homogeneous Ziegler-Natta catalysts. I. The Effects of the Species of Transition Metals.

Is this paper acceptable for publication in the Journal of Polymer Science?

(1) YES ☐ (2) With minor revision ☐ (3) With major revision ☐

(4) NO ☐ If not, do you suggest another journal _____

COMMENTS:

1) The premises the Authors base their theory on (page 8, Bottom) are not at all established. Therefore, the whole theory has a merely speculative character. In my personal opinion, it does not give a positive contribution to our knowledge in this field.

2) The Authors completely neglect what already published by other authors on the topic and sometimes their results are in contrast with those reported in literature. This holds, e.g., for the results obtained by the systems $AlEt_3$-$V(acac)_3$[1] (see Table 1), $AlEt_3$-CrA_3[2] and $AlEt_3/AlX_3/V(acac)_3$[3].

1) G.Natta, L.Porri, G.Zanini, L.Fiore, Chimica e Industria 41, 526 (1959)
2) G.Natta, L.Porri, G.Zanini, A.Palvarini, Chimica e Industria 41, 1163 (195
3) G.Natta, L.Porri, A.Carbonaro, Rend.Acc.Naz.Lincei (8) XXXI, 189 (1961).

Date Returned April 6, 1966 Sign White Copy Only _____

Please Return Signed Original and One Anonymous Carbon.

If you cannot return this manuscript with comments in two weeks, please return it immediately without comments.

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

JOURNAL OF POLYMER SCIENCE

J. P. S. Part A Date: March 10, 1966

Author: Kei Matsuzaki and Tamio Yasukawa

Title: Mechanism of Stereoregular Polymerization of Butadiene by Homogeneous Ziegler-Natta Catalysts. II. The Effects of the Nature of Bases or Halogens.

Is this paper acceptable for publication in the Journal of Polymer Science?

(1) YES ☐ (2) With minor revision ☐ (3) With major revision ☐

(4) NO ☐ If not, do you suggest another journal _____

COMMENTS:

1) The AA. state that the system $AlEt_2Cl$-$Co(acac)_3$ yields, in the absence of Lewis bases, polybutadiene with a cis-1,4 unit content of about 60%. Actually it has been long since known that systems of this type yield 97-98% cis-1,4 polybutadiene(1 Moreover, contrary to what reported by these AA., the $AlEt_2Cl$-$V(acac)_3$ system yields polybutadiene with trans-1,4 unit content of about 99%(2.
The AA. operate with too high concentrations of Co and V, which do not allow the catalyst to be completely homogeneous. Most probably, under these conditions, there is not formation of a unique catalyst system, but of several complexes with differen stereospecificity. What stated above demonstrates that the AA. scarcely know the work accomplished by others on the polymerisation of butadiene: as things are, it seems strange that they can discuss with competence on the mechanism of polymerization of this monomer.

2) The influence of the addition of bases to the system $AlEt_3Cl$-Co compounds had already been studied with great competence by W.Cooper(3. The AA. should at least mention it in their paper.

3) According to the AA. the influence of Lewis bases and of halogens can be explained in terms of decrease or increase of the "d_π electron density". Likely, the problem is more complex. In the case of the system $AlEt_2Cl$-Co compound, the addition of bases causes an increase in the trans content, while the substitution of Cl with I causes an increase in the 1,2 units content, in both cases to the detriment of the cis-1,4 units. Can the same fact determine two different effects?

./.

Date Returned April 6, 1966 Sign White Copy Only _____

Please Return Signed Original and One Anonymous Carbon.

If you cannot return this manuscript with comments in two weeks, please return it immediately without comments.

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

4) The paper reports experimental findings partly known. As to the interpretation, it is just based on the data reported by the AA, which are incomplete and sometimes in contrast with those reported by other Authors.

1) see e.g. Longiave C., Castelli R., Croce G.F., Chimica e Industria 43, 625 (1961).
Gippin M., Ind.Eng.Chem (Prod.Res.Devpt.) 1, 32 (1962).

2) Natta G., Porri L., Carbonaro A. Rend.Accad.Naz.Lincei (8) XXXI, 189 (1961).

3) Cooper W., Communication at the 148th Meeting of the A.C.S., Chicago Sept. 1964. Polymer Preprints page 222.

1) The AA. state that the absence of Lewis bases, polybutadiene with a cis-1,4 unit content of about 60%. Actually it has been long since known that systems of this type yield 97-98% cis-1,4 polybutadiene. Moreover, contrary to what reported by these AA., the $AlEt_2Cl$-V(acac)$_3$ system yield polybutadiene with trans-1,4 unit content of about 99%(2).
The AA. operate with too high concentrations of Co and V, which do not allow the catalyst to be completely homogeneous. Most probably, under these conditions, there is not formation of a unique catalyst system, but of several complexes with different stereospecificity. What stated above demonstrates that the AA. scarcely knew the work accomplished by others on the polymerization of butadiene: as things are, it seems strange that they can discuss with competence on the mechanism of polymerization of this monomer.

2) The influence of the addition of bases to the system $AlEt_2Cl$-Co compounds had already been studied with great competence by W.Cooper(3). The AA. should at least mention it in their paper.

3) According to the AA. the influence of Lewis bases and of halogens can be explained in terms of decrease or increase of the "dπ electron density". Likely, the problem is more complex. In the case of the system $AlEt_2Cl$-Co compound, the addition of bases causes an increase in the trans content, while the substitution of Cl with I causes an increase in the 1,2 units content, in both cases to the detriment of the cis-1,4 units. Can the same fact determine two different effects?

./.

Date Returned April 6, 1966 Sign White Copy Only _____

Please Return Signed Original and One Anonymous Carbon.

If you cannot return this manuscript with comments in two weeks, please return it immediately without comments.

JOURNAL OF POLYMER SCIENCE

Board of Editors: H. Mark C. G. Overberger T. G Fox Advisory Editors: R. M. Fuoss J. J. Hermans H. W. Melville G. Smets
Editorial Office: Polymer Research Institute, Polytechnic Institute of Brooklyn, 333 Jay Street, Brooklyn, New York 11201
Assistant Editors: E. P. Cassass H. Markovitz E. M. Peerce

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

March 3, 1966

Prof.Ernst Weber, President
Polytechnic Institute of
Brooklyn,
333 Jay Street,
Brooklyn, New York 11201

our ref.65/lmv

Dear Professor Weber:

This is in reply to your letter of Jan.10; I am very pleased for the developments expected for the Brooklyn Polytechnic Institute. I do believe that the National Science Foundation and the other Institutions have well directed their trust.

In the field of macromolecular chemistry, your School has acquired a first-rate and pioneering position all over the world.

If I can be somehow useful, do not hesitate in contacting me. However, in my opinion, financial helps can be hardly found in Italy: also our University research laboratories, even the most famous ones, meet with difficul= ties when trying to get financial helps from private sources. The Italian National Council for Research, which is the only non-Academic Institution that helps to a considerable extent University research laboratories, devotes all its possibilities to Italian needs; therefore it seems impossible that it may contribute to foreign programs.
The only possibility of future international co-operation from the Italian National Council seems to concern exchanges of scientists and technicians and consequent relating programs of scientific research.

With my warmest wishes to you and to your School of ever increasing success, I send you my kindest personal regards.

Giulio Natta

April 29, 1966

Prof.C.C.Price,
Dept. of Chemistry,
University of Pennsylvania
Philadelphia 4, Pennsylvania (USA)

our ref.187/lmv

Dear doctor Price:

Thank you very much for kindly sending me a copy of the paper "Head-to-head Units in Poly(propylene oxide) by Ozonation", which I found of great interest.

Please, let me know whether your paper is in press and in what journal. In fact, if you do not object, I would quote it in a paper I am writing on some substituted polyacrylamides, for which I would attribute the low crystallinity of stereoregular polymers to irregularities due to the presence of head-to-head and tail-to-tail arrangements.

With regard to the possibility that one of my co-workers may come to work in your laboratory, I would be most grateful to you if you can inform me about your possible future openings in due time.

Thanking you very much again, I send you kindest personal regards.

Giulio Natta

July 8, 1966

Dr.A.Ravve,
5310 N.California
Chicago, Ill. 60625 (U.S.A.)

our ref.N.380/lmv

Dear Doctor Ravve:

The Gazzetta Chimica Italiana sent me copy of your letter of May 17, asking for authorization to reproduce some Tables of our paper in said journal (87, 570 (1957)), and as far as I am concerned, I gave them a positive answer.

As we accomplished further works on this topic, I send you under separate cover some reprints, hoping they will be of interest to you.

Kind regards,

Giulio Natta

inviati
ultimi lavori
di Zambelli

EDITORS: Weekly summary of patents 12/5/66W

NEW CLASS OF CHEMICALS FOR DETERGENTS PATENTED

By ANN EWING
Science Service Writer

WASHINGTON, -- A new class of chemicals, useful for detergents, was disclosed in three patents granted here by the U.S. Patent Office.

The chemicals are made starting with dimethyl sulfoxide, or DMSO, a by-product produced in the manufacture of wood pulp and a widely used commercial solvent. DMSO in purified form was touted as a cure-all drug beneficial in treating a wide variety of ills, from arthritis and bursitis to headaches and burns. Clinical experiments with DMSO are now virtually suspended pending an investigation by the U.S. Food and Drug Administration.

Commercial DMSO is a colorless liquid with a faint odor that has been described as resembling garlic. It is treated with such strong alkalis as sodium and potassium, forming sodium and potassium methanesulfenates that are then reacted with alkyl bromides to form sulfoxides, which make good detergents.

The three patents, 3,288,858 through 3,288,860, were issued to Drs. Warren I. Lyness, David E. O'Connor and Jim S. Berry, who assigned rights to Procter and Gamble Company, Cincinnati.

Dr. Lyness said in a telephone interview that most of the detergents would be "bio-degradable," or disintegrate in water, rather than foam up rivers and streams. He noted that one unexpected finding was that sodium and potassium methanesulfenates are stable for several days at room temperature.

METHOD FOR FUEL BURNING

A method for burning residual fuel oils containing sulfide and vanadium so that the exhaust air is not polluted nor equipment corroded has been devised by eight Russian scientists.

Sergei A. Khristianovich and his colleagues assigned rights to patent 3,287,902 to Institute Teoreticheskoi i prikladnoi Mekhaniki sibirskogo Otdelenia Akademii Nauk, Novosibrisk.

Their method consists of partially oxidizing the entire amount of initial fuel at temperatures between 1,000 and 1,500 degrees C. under pressure up to the highest available from the power generation cycle. This burning is accomplished using part of the

MORE

air required for complete burning, resulting in complete gasification of the initial fuel.

The gaseous products are cooled by indirect heat exchange with a portion of the power system to a temperature at which the sulfur compounds, as well as soot and ash, can be removed. The cleaned gaseous products are then mixed with spent steam exhausted from the turbine and burned at a temperature of 750 degrees C.

OTHER INTERESTING PATENTS

A continuous mining machine that transports coal or minerals from the seam face to a loading point at knee or waist level rather than on the floor earned patents 3,288,533 and 3,288,534. Joseph Gonski of Chicago, assigned rights to Westinghouse Air Brake Company, Pittsburgh.

Nobel Prize winner Dr. Giulio Natta, with co-workers Enrico Beati and Febo Severini, was granted another patent in the series he has been earning for methods of making polymerized plastics. He assigned rights to patent 3,288,739 to Montecatini Societa Generale per l'Industria Mineraria e Chimica, Milan.

****

SCIENCE SERVICE INC.

THE INSTITUTION FOR THE POPULARIZATION OF SCIENCE organized 1921 as a non-profit corporation, with trustees nominated by the National Academy of Sciences, the National Research Council, the American Association for the Advancement of Science, the E. W. Scripps Estate and the Journalistic Profession. E. G. SHERBURNE, JR., DIRECTOR.

1719 N Street, N.W. WASHINGTON, D. C. 20036

Telephone 667-2255 (Area Code 202) Cable Address Scienservc

Ann

July 1, 1966

Dr. Giulio Natta
Professor of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Sir:

A sheet from one of our reports on science that has been issued to newspapers and magazines is enclosed because of your connection with one of the items that it contains. It is sent you for your information and files.

Science Service issues regular syndicate services which carry to over 400 subscribing newspapers and other publications in this country and abroad, authentic accounts of current scientific progress in all fields.

Cooperation of scientists with Science Service is greatly appreciated. Please keep us in touch with your own work and that of your associates. We shall value this aid to our work of science popularization.

Sincerely,

E. G. Sherburne, Jr.

E. G. Sherburne, Jr.
Director

EDITORS: Weekly summary of patents just issued 6/29/66

NOBELIST GRANTED PATENTS
FOR RUBBER-LIKE SYNTHETICS

By ANN EWING
Science Service Writer

WASHINGTON, A method for making rubber-like synthetic materials earned a patent from the U.S. Patent Office here this week for one of the two winners of the 1963 Nobel Prize in Chemistry.

Dr. Giulio Natta, professor of industrial chemistry at the Polytechnic Institute of Milan, Italy, and four co-workers were granted patent 3,258,455 on a process for making "polymerized polypropylenes."

The research leading to the production of such polymers was the basis for Dr. Natta's Nobel Prize, shared with Dr. Karl Ziegler, director of the Max Planck Institute for Coal Research at Mulheim-Ruhr, Germany.

The polypropylenes covered in the patent have all the qualities of natural rubber, but retain their elasticity better when aged. They have what Dr. Natta has termed "syndiotactic structure." Finding a way to make these synthetic compounds, as well as those with

"isotactic structure," laid the groundwork for an entirely new field of chemistry -- using the by-products of oil refineries to produce better plastics, textiles and rubbers.

Rights to the patent were assigned to Montecatini Societa Generale per l'Industria Mineraria e Chimica, Milan, for which Dr. Natta is a consultant, by Dr. Natta with Paolo Corradini, Italo Pasquon, Mario Pegoraro and Mario Peraldo, all of Milan.

LASER ACTION IN SEMICONDUCTORS

An expert on semiconductors, now widely used in such devices as transistor radios and hearing aids, was one of the seven scientists awarded a patent for obtaining laser action from semiconductors.

The expert is Dr. Benjamin Lax of Massachusetts Institute of Technology, Cambridge, Mass., to which rights to patent 3,258,718 were assigned. With his six co-workers, Dr. Lax found a way to use gallium arsenide, a semiconducting material, to make a laser that operates in the infrared region of the electromagnetic spectrum.

A laser, an acronym for Light Amplification by Stimulated Emission of Radiation, produces the most intense and purest beam of light known. The gallium arsenide semiconductor making the intense

MORE

although invisible, infrared light contains tiny amounts of zinc.

OTHER INTERESTING PATENTS

Although benefits to the general public from two other inventions patented this week are not so clearly evident as those granted to Nobelist Natta and Dr. Lax, the scientific instruments covered in them are now being used by scientists in laboratory research that holds great promise for the future.

Dr. Francis Bitter of Massachusetts Institute of Technology, with Edward D. Ostroff of Sudbury, Mass., was awarded patent 3,258,-656 for a method of continuously adjusting magnetic fields so that they remain equally high in all the space between the two magnetic poles. Rights were assigned to Magnion, Inc., Burlington, Mass.,

Dr. Donald W. Kerst of the University of Wisconsin has devised an apparatus to help scientists engaged in fusion research obtain the required high temperatures for a longer time than was previously possible. For his method of improving the conditions necessary to achieve the fusion of light elements, thus releasing large amounts of energy, Dr. Kerst was awarded patent 3,258,401, rights to which he assigned to General Dynamics Corporation.

****

NEWS RELEASE

February 16, 1966

from

ROBERT D. FORGER
SOCIETY OF PLASTICS ENGINEERS, INC.
65 PROSPECT STREET
STAMFORD, CONNECTICUT 06902
TELEPHONE • 203-348-7528

An international scientific and educational organization of 11,000 individual members devoted to the development and dissemination of technical information relating to plastics materials and plastics products. The Society comprises 53 geographic sections in the United States, Canada, Mexico and Japan.

for release: Immediately

attachments: None

Cartelle

SPE INTERNATIONAL AWARD TO DUBOIS

J. Harry DuBois, President of Molecular Dielectrics Inc., has been named recipient of the 1966 SPE International Award in Plastics Science and Engineering. The Award to Mr. DuBois has been made in recognition of his continuing efforts and success in expanding and disseminating the technology of plastics engineering, according to SPE President George P. Kovach (Koro Corp.). A $1,000 honorarium and gold medal comprise the Award.

Mr. DuBois will be presented with the Award - SPE's highest - on March 9 at the Banquet of the Annual Technical Conference in Montreal. Earlier that same day, he will present his Award Lecture entitled "Roadblocks Ahead" to a plenary session of the Conference.

The 1966 recipient recognized at an early date the need for eliminating secrecy in the art of mold design and plastics molding methods. He realized that failure to share information on these subjects was damaging the image and stunting the growth of the plastics industry. By dedicating himself to dissemination of this vital data he was able to remove the barrier of secrecy to the everlasting benefit of plastics.

Mr. DuBois received a B.S. in Electrical Engineering from the University of Minnesota. Following graduation in 1927, he joined the staff of General Electric

SOCIETY OF PLASTICS ENGINEERS, INC.
65 PROSPECT STREET
STAMFORD, CONNECTICUT
TELEPHONE • FIRESIDE 8-7528

Co. where he served as a plastics engineer. He was on the staff of the Gorham Co. for a short time and returned to General Electric until 1944. He was later associated with Shaw Insulator Co. and Plax Corp. before becoming Vice-President, Engineering, of Mycalex Corp. of America in 1952. He operated his own consulting firm and was Vice-President of Tech-Art Plastics Co. for five years prior to being elected President of Molecular Dielectrics, Inc. of Clifton, N. J. in October 1965.

Mr. DuBois is a member of numerous professional societies and has long been active in SPE, serving as President of the international Society in 1948. He has been granted a number of patents and has lectured widely on plastics in both the U.S. and abroad.

A prolific author, Mr. DuBois was co-author of PLASTICS MOLD ENGINEERING originally published in 1947. It was this basic publication which did so much to upgrade the technology of mold design. Mr. DuBois recently authored a revised edition of the same book, published under the auspices of SPE in 1964. He has also served as Engineering Editor of Plastics World since 1959.

Previous winners of this Award, sponsored annually by SPE's New York Section, have been Dr. Turner Alfrey, Jr., Dr. Carl S. Marvel, Dr. Giulio Natta (1964 Novel Prize Winner in Chemistry) and Dr. Herman F. Mark. The SPE Award Selection Committee was chaired by Jules W. Lindau, III of Southern Plastics Co. and the Award Canvassing Committee by Jack G. Fuller of Polymer Machinery Corp.

SOCIETY OF PLASTICS ENGINEERS

January 11, 1966

Dr. Guilio Natta
Instituto de Chimica
Industrial del Politenico
Piazza Leonardo de Vinci
Milano, Italy

Dear Dr. Natta:

You will be pleased to know that additional action was taken by the Executive Committee of the S. P. E., which allows us to make a selection for the International Award based on your previous ballots.

The Executive Committee has come to the decision which was suggested when I originally found my name among the nominees for the International Award. They have decided that no member of the award committee shall be selected as a nominee for the award during his term of service on the committee.

Based on this action those votes that were cast for me in first place were given to the nominee for second place. This allowed a majority of first place votes to be cast for J. Harry DuBois.

I have advised the Executive Committee of the selection of Mr. DuBois for the 1966 award. Mr. DuBois has been advised of the honor that has been awarded to him.

I am sure that you as well as the other members of our committee are pleased that it was possible to make this award, especially to an engineer who is most deserving.

Thank you again for your efforts.

Sincerely,

J. W. Lindau III

J. W. Lindau, III, Chairman
International Award Committee

Scrivere 2 righe di rallegramento a J. Harry DuBois

JWL:b c/s SPE
65 Prospect Street
Stamford, Conn. 06902

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY
SYRACUSE, NEW YORK 13210

2 May 1966

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano
Italy

Dear Professor Natta:

Thank you very much for your letter. I will be most happy to have Dr. Di Corato in our laboratories and I suggest that he will come in the middle of October or at the beginning of November 1966. I will certainly be in a position to offer him a fellowship of at least $5500 per annum, and probably more. If he wishes to get a visitor's visa, we may send him the necessary letters and forms which he can submit to the American Consulate.

With best regards,

Yours very sincerely,

Michael Szwarc
Research Professor

Di Corato non può per motivi di servizio venire

data via Porti

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY
SYRACUSE, NEW YORK 13210

1 April 1966

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano
Italy

Dear Professor Natta:

Thank you very much for your letter informing me about your student who would like to work in the United States. I would be most happy to accommodate him in our laboratory and to offer him a fellowship on the understanding that you recommend him as a capable and productive man.

Further details of the arrangement can be made after I will know more exactly when he plans to come here.

With best regards,

Yours very sincerely,

Michael Szwarc
Research Professor

SEYMOUR C. SCHUMAN, PH.D.
Consultant
P. O. BOX 252
ROCKY HILL, N. J.
WALNUT 1-9164

Ann

March 15, 1966

Professor I. Pasquon
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano
Italy

Dear Professor Pasquon:

Thank you for your letter of March 3 giving the title of your paper and a few of its details.

The American Chemical Society has tentatively seheduled the symposium for Tuesday, September 13, 1966. In order to complete the scheduling of the session, we would appreciate your filling out the enclosed abstract form and returning it to us at the address below.

We are looking forward to meeting you and hope to make your visit to the United States enjoyable and rewarding. Perhaps you would like us to arrange accomodations for your stay in New York; if so, please let us know your desires, and also any other plans you may have with which we may help.

Sincerely,

Carol P. Laird

(Mrs.) Carol P. Laird
Secretary to Dr. Schuman

P. O. Box 1416
Trenton, New Jersey

Enclosures: Abstract Form, and
Suggestions on How to Organize, Present, and Illustrate a Technical Paper.

audato
Pasquon

SEYMOUR C. SCHUMAN, PH.D.
Consultant
P. O. BOX 252
ROCKY HILL, N. J.
WALNUT 1-9164

February 8, 1966

Professor Giulio Natta
Direttore dell Instituto di Chimica
Industriale del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano
Italy

Dear Professor Natta:

(N 37)

I regret that you cannot personally participate in the symposium. However, I am delighted at your suggestion of Professor Pasquon. Either of the topics you mention would be excellent. If Professor Pasquon would communicate to me the title of his talk and its length as soon as possible, I would appreciate it considerably. In turn, I will send him further information on dates, times, deadlines, etc. by the end of the month.

I appreciate your help and continue to have the highest regard for the work you have done and, no doubt, are continuing to do.

Sincerely,

S. C. Schuman

cpl

Inviare subito con Risposta

SEYMOUR C. SCHUMAN, PH.D.
Consultant
P. O. BOX 252
ROCKY HILL, N. J.
WALNUT 1-9164

January 16, 1966

Professor Giulio Natta
Direttore dell Instituto di Chimica
Industriale del Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano
Italy

Dear Professor Natta:

As we all know, process research and development is becoming more and more expensive. At the same time, there is considerable doubt in many places as to the effectiveness of process research and development, presumably the doubt being whether such research and development can be carried out at a profit today. For this reason the American Chemical Society has scheduled a symposium entitled "The Effectiveness of Process Research and Development" for their New York national meeting, September 11-16, 1966.

As chairman of the session, I hope to have speakers who have demonstrated ability in creating and developing new processes, and who will have interesting things to say about the art or science of such development. I have asked many creative American scientists and engineers to contribute to the symposium. However, you have made unique fundamental contributions in the subject of the symposium, and I think that many of the younger chemists and engineers would be fascinated by a talk from you, particularly if in a philosophical or historical vein. Thus, I would indeed be honored if you could make such a contribution to our symposium.

Such a contribution would involve a talk on a subject of your own choosing, and would possibly involve your participation in an extemporaneous panel discussion. A list of some possible subjects is enclosed; however, this list is merely to indicate the type of thing which will probably be presented, and if you have an itch to do something radically different than any of the things on the list, we urge you to do so. Your talk may be of any length you desire.

What is needed immediately is your indication that you will speak, and, if possible, the approximate length of your talk. Although I realize you have many other responsibilities, I sincerely urge you to accept, since after a lifetime of creative research, it is practically your duty to transmit some of your lore and science to the future generations.

Sincerely yours,

S. C. Schuman

cpl

SCIENCE SERVICE INC.

THE INSTITUTION FOR THE POPULARIZATION OF SCIENCE organized 1921 as a non-profit corporation, with trustees nominated by the National Academy of Sciences, the National Research Council, the American Association for the Advancement of Science, the E. W. Scripps Estate and the Journalistic Profession. E. G. SHERBURNE, JR., DIRECTOR.

1719 N Street, N.W. WASHINGTON, D. C. 20036

Telephone 667-2255 (Area Code 202) Cable Address Scienservc

Dec. 12, 1966

Dr. Giulio Natta
Montecatini Societa Generale
per l'Industria Mineraria e Chimica
Milan, Italy

Dear Sir:

Science Service provides regular syndicate services carrying authentic reports of current scientific progress in all fields for use by 150 subscribing newspapers and other publications in this country and abroad.

I am enclosing a copy of one of our reports because of your connection with one of the items that it contains. It is sent to you for your information and files.

I hope that you will keep us in touch with your work and that of your associates, and will be most grateful to you for any assistance in our work of science popularization.

Sincerely,

E. G. Sherburne, Jr.

E. G. Sherburne, Jr.
Director

ES/el

Carlello
SPE Award

Jan.18, 1966

Dr.Harry DuBois,
c/o S.P.E.
65 Prospect Street,
Stamford, Conn. 06902 (U.S.A.)

Dear doctor DuBois:

I was most delighted to hear that you have been awarded the S.P.E. International Award. Accept my heartiest congratulations on the richly deserved honor.

Kindest regards,

Giulio Natta

Ann

June 17, 1966

Prof.M.Szwarc,
State University College of
Ferestry,
Syracuse University
Syracuse, New York 13210 (USA)

our ref.243/lmv

Dear Professor Szwarch:

I mostly apologize for the delay incurred in answering your kind letter of May 2.

I confirm you my interest and my desire to send one of my co-workers to your laboratory for a period of nearly one year. In my previous letters I indicated the namerof Dr.Di Corato; in the meantime, Dr. DiCorato had to check his position as to his military service and some difficulties have arisen as to his leaving Italy in a near future.

However, the possibility has ripened to send to the States an assistant of this Institute, who due to domestic reasons, thought he had to postpose his plan to the next year.

Therefore, I would mostly appreciate your considering the possibility to give hospitality to Dr.Paolo Ferruti during the next academic year.

Herewith enclosed, I send you the list of his papers. Dr.Ferruti got his degree in Chemistry (whih in Italy is slightly above your M.Sc.) at the University of Pavia in Nov.1961. At my Institute he has so far dealt with the chemistry of merely synthetic polymers and with some biological connections for the use of polymers. In a stage at your laboratory, Dr.Ferruti might start, under your outstanding direction, researhh works on the mechanisms of reaction.

I do hope that you can accept my proposal without great difficulties. If so, please send me the letters and forms required by the American Consulate.

I would also be interesting to know the most probable salary per annum (free from taxes) that will be granted to him, and whether it comprises his travel expenses to the States.

Kindest personal regards,

Giulio Natta

Dear Professor Szwarc,

chiedo scusa del ritardo con cui rispondo alla molto cortese Sua del 2 maggio.

Le confermo il mio interesse e il mio desiderio di inviare presso di Lei, per il periodo di un anno circa, un nostro collaboratore. Io le avevo fatto il nome del Dott. Di Corato; ora, nel frattempo, il Dott. Di Corato ha dovuto verificare la sua posizione nei confronti del servizio militare e alcune difficoltà sono sorte per il suo allontanamento dall'Italia in un futuro vicino.

Nel frattempo è però anche maturata la possibilità di inviare negli Stati Uniti un assistente di questo Istituto, il Dott. Paolo Ferruti che, per motivi familiari, riteneva di dover rinviare di un anno il suo progetto.

Le sarò quindi molto grato se Lei vorrà esaminare la possibilità di ricevere ed ospitare nel prossimo anno accademico il Dott. Paolo Ferruti. Le accludo un elenco dei titoli delle sue pubblicazioni. Egli ha conseguito il degree italiano in Chimica (degree un poco superiore al Vostro M.S.) presso l'Università di Pavia nell'ottobre 1961. Nel mio Istituto si è finora occupato di chimica dei polimeri puramente sintetici e di alcune connessioni biologiche per l'impiego dei prodotti. In uno stage con Lei il Dott. Ferruti potrebbe avere l'opportunità di introdursi, sotto la Sua autorevole guida, in ricerche su meccanismi di reazione.

Spero che questa mia proposta possa essere da Lei accolta senza particolari difficoltà. Nel caso Lei possa accoglierla, io penso che Lei possa senz'altro inviarmi letters and forms per il Consolato americano.

Sarebbe inoltre interessante per il Dott. Ferruti conoscere il più probabile stipendio annuale di cui potrà godere (li

April 27, 1966

Prof. Michael Szwarc
State University College of Forestry
Syracuse University
Syracuse - New York 13210, USA

our ref. No. 164/rl

Dear Professor Szwarc,

thank you very much for your letter of April 1 and for kindly inviting one of my chemists to your laboratory.

My delay in answering is due to a long mail-service strike.

In my opinion Dr. Di Corato is particularly prepared and can best use the time spent with you.
He has been working fot two years in the field of the polymerization of diolefins under the guidance of dr. Porri.

As to his stay in Syracuse, Di Corato can come whenever you think it convenient, starting from the beginning of September. In order to arrange his position, it should be most useful to know the amount of the fellowship that will be granted to him.

Thanking you very much again, I send you kindest personal regards.

Giulio Natta

TIME - LIFE
News Service

ROME BUREAU
VIA SARDEGNA, 14 - ROME, Italy
TEL. 48.18.13
TELEGRAMS: TIMEINC, ROME
TELEX: 61143

17th Jan., 1966

Gent.ma Dott.ssa Lamma,
Istituto di Chimica Industriale
Politecnico di Milano,
P. Leonardo da Vinci.

Gentilissima Dottoressa Lamma,

Le ringrazio per la copia del articolo del Professor Natta. L'ho letto e mi pare particolarmente interessante e adatto alla tema, come d'altronde si dovrebbe aspettare da un esperto cosi noto come lui. Il professore era molto gentile di eseguirlo in fretta in questa stagione di vacanze e questo fatto e' molto apprezzato anche.

Appena che avro' sentito qual cosa da New York a proposito scrivero' a lui. In tanto Le mando un assegno per i soldi dovuti in pagamento della dogana (5,400 Lire) e Le porgo i miei ringraziamenti sinceri per l'aiuto recatoci in questa occasione.

Con cordiali saluti

Ann Natanson

Ann L. Natanson

Alleg: ass. per
5,400 Lire

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

June 21, 1966

347

Professor G. Natta
Politechnical Institute
Milan, Italy

Dear Professor Natta:

The interesting article "NMR Study of Polypropylenes of Different Structure and Steric Order" which appeared in La Chimica e l'Industrie, 47 (4) 378 (1965) has been suggested for reprinting in Rubber Chemistry and Technology. This journal is devoted to collecting in convenient form important papers of permanent interest related to rubber and allied substances.

We should appreciate it very much if you would approve reprinting this article. If you do, it would be helpful if you could send us two reprints to assist in editorial preparation.

Yours very truly,

E. M. Bevilacqua

EMB:dlw

747
Natta Lombardi
Sept. Lambell, Ulmanengeli

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

May 26, 1966

293

Professor G. Natta
Instituto di Chimica
industriale del Politecnico
Milan, Italy

Dear Professor Natta:

You asked to see proof of our translation of your article "Improvement of Impact Strength of Polystyrene by Compounding with Styrene-Grafted Ethylene Propylene Elastomeric Copolymers". Since it is easier to make corrections in the original, than at the time of proof, I am sending you herewith the manuscript of the English translation as we plan to publish it in the December issue of Rubber Chemistry and Technology.

We have rearranged the tables slightly to correspond to our journal style and have condensed the text by elimination of one or two paragraphs. Please indicate corrections in pencil in the margin.

With best regards.

Yours very truly,

E. M. Bevilacqua

EMB:dlw

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

February 15, 1966

Professor G. Natta
Institute of Industrial Chemistry
Milan, Italy

Dear Professor Natta:

The interesting article "Improvement of Impact Strength of Polystyrene by Compounding with Styrene-Grafted Ethylene Propylene Elastomeric Copolymers" which appeared in Chim. Ind. (Milan) 47 384 (1965) has been suggested for reprinting in RUBBER CHEMISTRY AND TECHNOLOGY. This journal is devoted to collecting in convenient form important papers of permanent interest related to rubber and allied substances.

N752
Reprinted Review

We should appreciate it very much if you would approve reprinting this article. If you do, it would be helpful if you could send us two reprints to assist in editorial preparation.

Yours very truly,

E. M. Bevilacqua

EMB: dlw

UNIVERSITY OF *Minnesota*

INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
MINNEAPOLIS, MINNESOTA 55455

May 25, 1966

6
305

Dr. Givlio Natta
Technical University of Milano
Milano, Italy

Dear Dr. Natta:

I am a graduate student of Professor P. L. Blackshear in the Mechanical Engineering Department of the University of Minnesota at Minneapolis, Minnesota. I am familiarizing myself with current research in surface chemistry. I am interested in both inorganic surface chemistry and blood surface chemistry.

I will be in Milano on Thursday, 14 July 1966. I wish to meet you and tour the surface chemistry experiments of your laboratory.

Please notify me if you or one of your staff would be able to show me your laboratory on 14 July. Thank you for your consideration.

Sincerely,

Gordon O. Voss

Gordon O. Voss
Department of Mechanical Engineering

ls

1st. Chim. Fis.
Via G. Colloni 9

27 aprile 1966

Spett.U.S.I.S.
Segreteria della Commissione
Americana per gli scambi
culturali con l'Italia,
Via Barberini 86
Roma

Attesto che il posto offerto dal Prof.Ezwarc per una fellowship presso lo State University College of Forestry at Syracuse University, verrà occupato dal dr.Antonio Di Corato, che lavora da due anni presso il mio Istituto.

Distinti saluti.

Giulio Natta

Il dott. Antonio di Corato gode dal 1.12.1964 di una borsa di studio del Consiglio Nazionale delle Ricerche per compiere ricerche presso l'Istituto di Chimica Industriale del Politecnico di Milano, nel campo della polimerizzazione stereospecifica.

Il dott. A. di Corato ha ottenuto nel suo lavoro risultati di notevole interesse, che saranno oggetto di prossime pubblicazioni. Ha dimostrato una notevole attitudine alla ricerca ed un'ottima preparazione di base.

E' augurabile che egli possa completare la sua preparazione in laboratori esteri di ricerca.

(Prof. Giulio Natta)

March 28, 1966

Prof.M.Szwarc,
State University College of
Forestry,
at Syracuse University
Syracuse 10, New York (USA)

Dear Professor Szwarc:

Thank you very much for kindly sending me the reprints of your papers, which I will read with much interest.

Kindest personal regards.

G.Natta

STATE UNIVERSITY COLLEGE OF FORESTRY

AT SYRACUSE UNIVERSITY

SYRACUSE 10, NEW YORK

22 February 1966

Professor G. Natta
Department of Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta,

I am sending herewith a few reprints which I hope will be of interest to you.

Looking forward to seeing you again, and with best regards,

Yours very sincerely,

Michael Szwarc
Research Professor

enc.

March 25, 1966

Prof.M.Szwarc,
State University College of Forestr
Syracuse University,
Syracuse 10, New York (USA)

our ref.143/lmv

Dear professor Szwarc:

I wish to inform you that some young chemists, who have been working for a couple of years at this Institute in the field of macromolecular chemistry, made an application to the United States Information Service to obtain a grant covering travel expenses to the States.

However, subsidies are not available as to their stay in the United States. If your budget for 1966-67 considers the possibility of granting post-doctorate fellowships to young researchers, who may work under your direction on a subject of your choice, my young co-workers would be very pleased to be accepted in your Institute.

I would mostly appreciate your letting me know, at your earliest convenience, your mind on this matter on principle and information on the possible topics of research. More precise agreements will be possible reached later.

Thanking you very much in advance, I send you kindest personal regards.

Giulio Natta

20.1.1966

Gentile Signora
Ann L. Natanson
Time-Life News Service
Roma - Via Sardegna 14

Gentile Signora,

La rin grazio molto della Sua gentile lettera del 17 e del rimborso delle spese doganali. Sono lieta che l'articolo del Prof. Natta sia adatto al tema e che sia arrivato con non troppo ritardo.

Molti cordiali saluti.

Rossana Lamma

Jan.13, 1966

TIME LIFE Book Division,
attn: Martha Stevens,
Time Life Building,
Rockfeller Plaza,
New York 20, N.Y. (U.S.A.)

cc. A. Natanson
Roma

Dear Miss Stevens:

I herewith enclose the Preface to the book "Giant Molecules" required.

Accept my apologies for the delay incurred and my kindest regards.

Giulio Natta

Encl/

Oct.14, 1966

Rubber Chemistry & Technology,
(Dr.Bevilacqua)
U.S.Rubber Research Center
Wayne (New Jersey) 07470 (USA)

Gentlemen:

We return you the proofs of the paper on the impact properties of EPR-polystyrene blends.

Unfortunately, we found many mistakes or omissions in the drawings. We will be glad if you look at the original drawings published in La Chimica e l'Industria, and send the corrected proof of page G5X (figures) to us before publication for an additional check.

Moreover, we have found a table that does not refer to our paper.

Sincerely yours,

Giulio Natta

Ren -

our ref. 347/rl

Milano, June 28, 1966

Mr. E. M. Bevilacqua, Editor
Rubber Chemistry & Technology
U.S. Rubber Co.
Research Center
Wayne, New Jersey 07470 (USA)

Dear Mr. Bevilacqua,

This in reply to your letter of June 21, 1966.
We agree with your proposal to re-print our article : " NMR Study of Polypropylenes of Different Structure and Steric Order " in Rubber Chemistry and Technology.

On this purpose, we asked permission to the Editor of Chimica e Industria, who has kindly granted it.

We would only like to check the translated manuscript before its publication.

Herewith enclosed, I send you the two reprints of the above article required.

Sincerely yours,

Giulio Natta

Encl/

Ann

June 6, 1966

Dr.E.M.Bevilacqua, Editor
U.S.Rubber Co.,
Research Center,
WAYNE, New Jersey 07470 (U.S.A.)

our ref.293/lmv

Dear doctor Bevilacqua:

Prof.Natta, who is presently out of town, charged us to send you (under separate cover) the revised manuscript of the English translation of the article:"Improvement of Impact Strength of Polystyrene by Compounding with Styrene-Grafted Ethylene Propylene Elastomeric Copolymers", for publication in Rubber Chemistry & Technology.

With best regards,

Prof.Natta's Secretariat

March 8, 1966

Mr.E.M.Bevilacqua, Editor
Rubber Chemistry & Technology,
U.S.Rubber Co.,
Research Center,
Wayne, New Jersey 07470 (U.S.A.)

our ref.86/lmv

Dear Mr.Bevilacqua:

This is in reply to your letter of Feb.15, 1966. We agree with your proposal to re-print our article: "Improvement of Impact Strength of Polystyrene by Compounding with Styrene-Grafted Ethylene Propylene Elastomeric Copolymers" in RUBBER CHEMISTRY and TECHNOLOGY.

On this purpose, we asked permission to the Editor of Chimica e Industria, who has kindly granted it.

We would only like to check the translated manuscript before its publication.

Herewith enclosed, I send you the two reprints of the above artcile required.

Sincerely yours,

G.Natta

Encl/

June 13, 1966

Dr.Gordon O.Voss
Dept. of Mechanical Engineering
Institute of Technology,
University of Minnesota
Minneapolis, Minnesota 55455 (U.S.A)

our ref.305/lmv

Dear doctor Voss:

With regard to your letter of May 25, I regret informing you that nobody in this Institute specifically works in the field of surface chemistry.

In Italy the surface tension of macromolecules has been studied by Prof.E.Ferroni (Istituto Chimica Fisica, Università, Via G.Capponi 9, Firenze). In my opinion, it would be of greater interest for you to meet him. In any case, if you wish to visit also our laboratories, you can do so on July 14.

Kindest regards,

Giulio Natta

USA

1967

Nov.15, 1967

Mr.Peter S. Carno,
645 East 14th St.,
New York, N.Y. 10009 (U.S.A.)

in wts 18. 12. 62

Dear Peter:

Thank you for your letter of Oct.10, 1967. Under separate cover, I send you two reprints - unfortunately in Italian - of the scientific papers on the device that utilized oriented fibers of trans-1,4 polybutadiene. The fibers of this materials are not available at the moment. We are now studying other products that would result more stable and that would age less easily than trans-1,4 polybutadiene.

Yours sincerely,

Giulio Natta

645 East 14th St.
New York, N.Y. 10009
October 10, 1967

Prof. G. Natta
Politecnico Institut
Milan, Italy

2 e Natta

Dear Prof. Natta;

I am fourteen years and am in High School. Recently, I read an article in the Chemical and Engineering News of January 1967 where a device was described that utilized oriented fibers of trans-1,4- polybutadiene.

Could you possibly direct me to sources where I may obtain this fiber because I am interested in exhibiting a project such as that described in the article, in my school. I would also appreciate some more specific information about the construction of a model.

Thank you most sincerely.

Very truly yours,

Peter S. Arno

PETER S. ARNO

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNIROYAL, INC.
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

June 9, 1967

Prof. G. Natta
Instituto di Chimica Industriale del
Politecnico di Milano
Centro Niziozale di Chimica
Delle Macromolecole
Sez I, Milan

Dear Prof: Natta:

N 852

The interesting article "Thermodynamic examination of Polymorphous Transition of Trans-1,4-Polybutadiene Experimental" which appeared in Chim. Ind. (Milan) 49 (1) 7 (1967) has been suggested for reprinting in Rubber Chemistry and Technology. This journal is devoted to collecting in convenient form important papers of permanent interest related to rubber and allied substances.

We should appreciate it very much if you would approve reprinting this article. If you do, it would be helpful if you could send us two reprints to assist in editorial preparation. We will take care of arrangements with the publisher or copyright owner.

Yours very truly,

E. M. Bevilacqua

EMB/jsg

VIA AIRMAIL

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

May 19, 1967

Professor G. Natta
Politecnico Institute
Milan, Italy

Dear Professor Natta:

Enclosed herewith is a copy of Rubber Chemistry and Technology in which your article

"NMR Study of Polypropylenes of Different Structure and Steric Order"

was reprinted. We hope that this reproduction appears satisfactory.

Yours very truly,

E. M. Bevilacqua

EMB:dlw
Encl.

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNITED STATES RUBBER COMPANY
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

December 14, 1966

Professor G. Natta
Istituto Di Chimica Industriale Del Politecnico
Milan
ITALY

Dear Professor Natta:

Enclosed herewith is a copy of Rubber Chemistry and Technology in which your article

"Improvement of Impact Strength of Polystyrene by Compounding with Styrenegrafted Ethylene Propylene Elastomeric Copolymers"

was reprinted. We hope that this reproduction appears satisfactory.

Yours very truly,

E. M. Bevilacqua

E. M. Bevilacqua

EMB:dlw
Encl.

mp reprint

JERZY J. BIALY
R D #2, ANDREWS RD.
LAGRANGEVILLE, N. Y. 12540

Aun

May 6, 1967

Dear Sir:

Just how utterly embarrassed and foolish can a man feel? I ought to know, since I have reached the pinnacle of both feelings when I received your autograph on the protective cardboard insert of my envelope instead of on the face of the envelope in the space below the stamp and to the right of the engraving. Will you forgive my oversight and bear with me just this one time and grant me the honor of your autograph? The protective insert is intended to safeguard the autographed envelope when mailed inside a larger return envelope. Begging your forgiveness, I remain,

Very truly yours,

Dr. Jerzy J. Bialy.

JERZY J. BIALY
R D #2, ANDREWS RD.
LAGRANGEVILLE, N. Y. 12540

Sir,

April 13, 1967

Dear Sir:

May I be so honored as to have you autograph the enclosed first day cover envelope? I am attempting to collect a set of first day covers signed by Nobel Prize laureates. May I impose upon a moment of your time to help me accomplish my task?

Thank you very much for your patience and cooperation.

Very truly yours,

Dr. Jerzy J. Bialy.-

NEW YORK OFFICE
120 BROADWAY

PHILADELPHIA OFFICE
PHILADELPHIA NATIONAL BANK BUILDING

ZURICH, SWITZERLAND
23 OBERDORFSTRASSE

LAIRD, BISSELL & MEEDS, INC.
DU PONT BUILDING
WILMINGTON, DELAWARE 19899

RESEARCH DEPARTMENT

November 29, 1967

629

Professor Giulo Natta
Instituto Di Chemica Industriale
Del Politecnico
Plaza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

It was nice to hear from you. I hope your health is good and that you are still taking as keen an interest as you always have in your research affairs.

I retired from the duPont Company for health reasons in 1964, however, I work three days a week in the above brokerage office. It is located in the same building as the duPont Company. I have turned your letter and Mr. Notarbartolo's letter and other material over to the proper person in duPont.

Please give my regards to Mrs. Natta.

Sincerely,

Robert E. Burk

Robert E. Burk

rh
cc Mr. M. Notarbartolo

[illegible]

June 21, 1967

Dr.E.M.Bevilacqua,
Rubber Chemistry & Technology,
Uniroyal, Inc.,
Research Center,
Wayne, New Jersey 07470 (U.S.A.)

our ref.378/lmv

Dear doctor Bevilacqua:

This is in reply to your letter of June 9 concerning our paper: Natta, Pegoraro, Szilagyi "Thermodynamic Examination of Polymorphous Transition of Trans-1,4 Polybutadiene. Note II: Experimental", which appeared in Chim.Ind.(Milan) 49, 7 (1967).

I wish to inform you that a paper on the topic summarizing the two notes published in Italy is presently in press in the English journal "Rubber & Plastics Age". The English text markedly summarizes the theoretical part, which is extensively discussed in Note I - Chim.Ind. (Milan) 49, 1 (1967).

Therefore, I think it of interest to publish in Rubber Chem. & Technology the unabridged translation of both Notes I and II, due to the incompleteness of the paper in press in Rubber & Plastics Age.

Under separate cover, I send you two reprints of the two notes published in Italy.

(N 851 852)

Kindest personal regards,

Giulio Natta

P.S. Thank you very much for kindly sending me a copy of Rubber Chemistry & Technology, in which our article on the NMR Study of Polypropylenes was reprinted.

Jan.11, 1967

Mr.E.M.Bevilacqua

Rubber Chemistry & Technology,
United States Rubber Co.,
Research Center,
Wayne, New Jersey 07470 (U.S.A.)

Dear Mr.Bevilacqua:

Thank you very much for kindly sending me the copy of Rubber Chemistry and Technology in which our article was printed in a very satisfactory manner.

Kindest regards,

Giulio Natta

BXL

BXL INDUSTRIAL PRODUCTS GROUP LTD.
RESEARCH AND DEVELOPMENT DEPARTMENT
LAWFORD PLACE, MANNINGTREE, ESSEX
Telephone: Manningtree 2251
Telex: 98201

Proposto rispondere

R/DGS/SC

9th March 1967

Egregio Professore Giulio Natta,
Istituto di Chimica Industriale del Politecnico,
MILANO,
Italy.

4
166

752

Egregio Professore Natta,

Abbiamo letto con interesse lo studio "Miglioriamento della resistenza all 'urto del polistirolo per miscela con copolimeri ad innesto di stirolo su copolimeri elastomerici etilene-propilene", (La Chimica a L'Industria 47 (4), 1965). Lei ha suggerito che questo tipo di polistirolo deve avere una resistenza più alta all 'invecchiamento a quello che contiene una gomma non saturata. Vorremmo sapere se Lei ha fatto uno studio delle proprietà dopo l' invecchiamento delle miscele di polistoloro con copolimeri ad innesto di stirolo su copolomeri etilene-propilene, poichè noi abbiamo esperienza soltano delle gomme polibutadiene.

Degli studi che abbiamo fatto in questi laboratori(gli studi pubblicati sono C.B.Bucknall and R.R.Smith, Polymer 6, 437-46 (1965) e C.B.Bucknall and D.G.Street S.C.I. Monograph No.26 che è ancora in processo di stampa) ci hanno portato a proporre una teoria alternativa a quella di Merz, Claver e Baer per spiegare il miglioramento della resistenza all 'urto di polistirolo che contiene una fase gommosa. Abbiamo potuto applicare questa teoria al problema di invecchiamento e possiamo predire per mezzo di prove fatte su campioni non invecchiati la resistenza all 'urto di un campione invecchiato.

Sarò nell 'Italia settentrionale per circa tre settimane all' inizio di giugno, e desidererei scambiare delle idee sul tema sopra detto con Lei o con i Suoi colleghi se questo e possibile,

Distinti Saluti

D. G. Street
(D.G. STREET)

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

LABORATORY OF CHEMICAL BIODYNAMICS BERKELEY, CALIFORNIA 94720

June 19, 1967

AIR MAIL

Professor G. Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

This is to formally assure you and Dr. Paolo Ferruti that space and facilities will be available at the Laboratory of Chemical Biodynamics for him to pursue a year or two of postdoctoral work here in Berkeley.

Since I will be absent for a good part of the coming academic year, it might be better if he planned his entry into the laboratory beginning some time after the first of June, 1968.

Very truly yours,

Melvin Calvin

Melvin Calvin
Director

MC:mt

data
Cofile
a Dawson
23/6/67

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

UNIVERSITY OF CALIFORNIA 100 YEARS 1868 1968 A Tribute to the People of California

LABORATORY OF CHEMICAL BIODYNAMICS BERKELEY, CALIFORNIA 94720

May 17, 1967

AIR MAIL

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

Dear Professor Natta:

I received your cable concerning Ferruti's plan to postpone his arrival in Berkeley until June of 1968, and we will, therefore, plan on his being here at that time and for the ensuing academic year or two. I still think it would be useful, both for him and for us, if you could make an effort to find at least some, if not total, support for him from Italian sources, but, in any case, we will assure him of a satisfactory stipend during his stay here.

Your comment on the tendency of polyisoprene to undergo only head-to-tail condensation on the titanium and vanadium catalysts was indeed valuable. Also, your reference to the nickel catalyst helped me very much. The only question that now remains for me to ask is: Do you have any knowledge of whether this head-to-tail selectivity takes place in free radical polymerization as well?

My concern with these matters stems from our findings of polyisoprenoids in the very ancient rocks and the interpretations that have been made of this finding. If abiogenic 1,4-polymerization of isoprene tends to lead exclusively to the head-to-tail condensation, then it is clear that the finding of such polymers in the ancient rocks cannot be interpreted as unequivocal evidence for the existence of living things during that geologic period.

Many thanks.

Very truly yours,

Melvin Calvin

Melvin Calvin
Director

MC:mt

Dawson

Porri

30/5/67

April 5, 1967

Prof.Melvin Calvin
Dept. of Chemistry,
University of California,
Berkeley, California 94720 (U.S.A.)

our ref.212/lmv

Dear Professor Calvin:

An assistant of Mine, dr.Paolo FERRUTI, who works in my Institute on synthetic macromolecular chemistry, would like to spend about one year at your Institute, and work on a topic of your choice and under your direction.

I believe that this would be a very valuable experience for him, and I am glad to support his candidature.

Dr.Ferruti was born in 1938, graduated in Chemistry at the University of Pavia in 1961 (nearly your M.Sc.); from then on he has been working at my Institute as a full-time researcher in macromolecular chemistry.

Herewith enclosed, I send you the list of papers by Ferruti, either published or in press, (the titles have been translated into English), so that you may get an idea of Ferruti's experience in the field of the synthesis of monomers and of different polymers and of some of their applications to pharmacological problems.

If you feel favourable to my proposal, the question arises as to both the possibility of accepting Dr. Ferruti at your Institute (e.g. next academic year) and the availability of the necessary funds.

I support this candidature also because I am quite sure that dr.Ferruti will try to benefit by his stay with you at most and work with conscientiousness and great passion.

I would greatly appreciate your answering me on this matter at your earliest convenience, as,at this time, I should make some plans for the future research of Ferruti in Italy.

My wife joins me in sending you and Mrs.Calvin kindest regards.

Giulio Natta

Dec. 18, 1967

Dr.Robert E. Burk
Research Dept.
Laird, Bissel & Meeds, Inc.
DuPont Building
Wilmington, Delaware 19899 (USA-

our ref.629/lmv

Dear doctor Burk:

Thank you very much for your letter and for kindly forwarding the letters concerning Mr. Notarbartolo to the proper person in DuPont.

I was sorry to hear that you retired from the Du Pont Co. for health reasons. I send you my sincerest wishes for your good health and my congratulations on your continuing to work.

My wife joins me in sending you kindest regards and best season's greetings.

Sincerely yours,

Giulio Natta

16.3.1967

ns.rif.N.166/rl

Egr.
Dr.D.G.Street
BXL Industrial Products Group Ltd
Research and Development Dept.
Lawford Place, Manningtree, Essex
(Inghilterra)

Egregio Dottore,

rispondo alla Sua lettera del 9.3.1967 (R/DGS/SC)

Sono lieto di poter avere uno scambio di vedute sull'argomento dei polistiroli antiurto con Lei, ma occorrerebbe che Lei precisasse meglio il giorno in cui si troverà a Milano.

Per quanto riguarda gli studi sulla resistenza all'invecchiamento dei nostri polimeri, Le comunico che si sono limitati ad un controllo del peggioramento di talune proprietà meccaniche con il tempo, durante l'invecchiamento accelerato.

Distinti saluti.

G.Natta

Ferr

June 9, 1967

Prof. M. Calvin
UNIVERSITY OF CALIFORNIA
Laboratory of Chemical Biodynami
Berkeley, California 94720

our ref. 326/eg

Dear Professor Calvin:

Thank you for your letter of May 17. I am very glad that you agree with Ferruti's arrival in June 1968. In the meantime Ferruti will possibly get an Italian fellowship for a one-year stage in the U.S. If so, he will be able to ask the Fullbright for a financial support covering his travel expenses.

I am afraid that Italian funds will not be quite satisfactory: thus, as you kindly propose, you may examine the possibility of granting him a further support, depending on the standard of life at Berkeley. Ferruti will probably come with his family (presently consisting of wife and a two-year daughter).

In view of the fellowship and of the request for U.S. visa, Dr. Ferruti needs a formal letter from you stating that you may give him hospitality at your Institute from the date that you may freely choose, possibly mentioning that, until that time, you will be absent from your Institute. I would appreciate your sending me this letter at your earliest convenience, so that Ferruti may forward his applications within the month of June.

Concerning the second topic of your letter, the radical polymerization of isoprene does not exclusively give 1.4 units, but also mixtures of 1.4 and 3.4 units. Moreover, although accurate studies on this topic do not exist, it does not seem that there is exclusively head-to-tail addition, but also a far greater possibility of head-tohead additions than in the case of polymerizations catalysed by organometallic complexes.

Kindest regards.

G. Natta

May 8, 1967

Prof.Melvin Calvin, Director
Laboratory of Chemical Biodynamics
University of California
Berkeley, California 94720 (U.S.A.)

our ref.262/lmv

Dear Professor Calvin:

Thank you for your kind letter of April 18 and for accepting my co-worker Dr.Ferruti at Berkeley. We are considering the postponement of date you propose with Dr.Ferruti himself, and will be more precise in the near future.

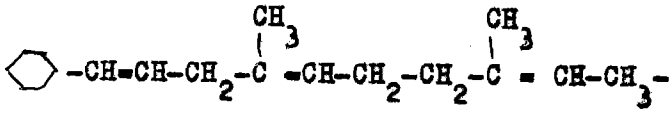
Concerning the oligomers of isoprene, I can tell you that we dealt with the polymerization of isoprene to high polymers, both cis-1,4 and trans-1,4, by Ti or V catalysts. These polymers exhibit a very regular structure with head-to-tail arrangement. However, we never studied the structure of the oligomers that are found, although to a small amount, with the high polymers.

Few references exist in literature on the oligomerization of isoprene (while a detailed work has been made on the oligomerization of butadiene).

It is known (see Angew.Chemie, Int.Ed. 2, 105 (1963)) that a dimer

$$CH_3-CH=\overset{CH_3}{\overset{|}{C}}-CH_2-CH=CH-\overset{CH_3}{\overset{|}{C}}=CH_2$$

can be obtained by catalysts based on $TiCl_4$ and that by co-oligomerization of styrene with isoprene in the presence of catalysts based on Nickel (Angew.Chemie, Int.Ed. 4, 327 (1965)) the following compound is obtained:



In both cases, a regular head-to-tail arrangement of the isoprene units has been observed, like in high polymers.

Hoping that these information may be of some help to you, I send you kindest personal regards.

Giulio Natta

LMSQ7Q4 WUR2478 CD JDA15Q JD BERKELY CALIF 35 12 1Q52

LT PROF GIULIO NATTA ISTITUTO
DI CHIMICA INDUSTRIALE DEL
POLITECNICO PIAZZ LEONARDO DA VINCE
2044 MILAN 32

TELEGRAMMA Via Italcable Via Italo Radio

1967 12 22 05

12 5 1967

RAT

WHAT PROSPECTS OF FELLOWSHIP SUPPORT FOR SERRUTI FROM ITALY
AND WHEN PLEASE CABLE REPLY MELVIN CALVIN UNIV OF CALIF

PER LA RISPOSTA TELEFONATE AL N. 8838

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

UNIVERSITY OF CALIFORNIA 100 YEARS 1868 1968 A Tribute to the People of California

LABORATORY OF CHEMICAL BIODYNAMICS BERKELEY, CALIFORNIA 94720

April 18, 1967

AIR MAIL

Professor Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

My dear Professor Natta:

I have just returned to Berkeley to find your letter of April 5, 1967 recommending Dr. Paolo Ferruti for spending some time here in Berkeley with us. Needless to say, your recommendation is enough, and we will be very pleased to have him. The only problems are under what circumstances do you think will be the best way to do this.

First of all, let me tell you that I am expecting to be away on sabbatical leave from the laboratory between October, 1967 and June, 1968. Although I will be returning periodically, I will not be regularly in residence here. This does not necessarily mean that Dr. Ferruti shouldn't come. However, I think it would be nice if I were here during his stay.

With respect to the availability of the necessary funds, I can say this: That it would be helpful if you could arrange to provide at least some support for Dr. Ferruti but, nevertheless, on the basis of your recommendation, I would make the commitment to support him in any case, certainly beginning in June of 1968, if not earlier.

Let me know what your response to these suggestions is.

Very truly yours,

Melvin Calvin

Melvin Calvin
Director

P.S. I might ask one scientific question and I would very much appreciate any answer that you might have: Have you ever examined the chemical polymerization of isoprene, either by the free radical route or by whatever catalysts you may be working with? If so, do you know anything about the geometry of the early products, say the C_{10}, C_{15} and C_{20} products that derive from it? I am not so much conerned with the geometry of the remaining double bonds as I am with the question as to the relative importance of head-to-head or head-to-tail 1,4-linkages, as well as perhaps the frequency of 1,2 linkage.

MC:mt

CHEMICAL & ENGINEERING NEWS

1155 SIXTEENTH STREET, N.W., WASHINGTON, D.C. 20036 REPUBLIC 7-3337

February 21, 1967

123

Dr. Giulio Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

Mr. Neely has forwarded to me your two letters of reply to Dr. Arnold Gordon and Mr. Ralph Wolf. We shall be happy to combine these two letters into one letter and publish it in an early issue of C&EN.

Sincerely yours,

Gordon H. Bixler
Editor

GHB:tr

cc: C. Neely

AN AMERICAN CHEMICAL SOCIETY PUBLICATION

CHEMSTRAND
RESEARCH CENTER, INC.

Box 731
Durham, N. C. 27702
Telephone 549-8111
Area Code 919

November 27, 1967

Professor G. Natta
Istituto Chimica Industriale
Politecnico
Piazza L. da Vinci
Milano, Italy

Egregio Professore,

Le scrivo per informarLa che a partire dal prossimo Gennaio ritornerò in Italia. Il desiderio di ritornare è state accelerato da tristi eventi al Chemstrand Research Center che interrompe l'attività di ricerca perseguita con notevole successo durante gli ultimi otto anni.

Come gia Lei mi suggerì, mi associerò all'Istituto del Prof. Rossi. La posizione di professore incaricato non è nè permanente nè brillante ma spero che una posizione piu sicura potrà presentarsi.

Mi auguro di rivederLa. Mi piacerebbe discutere con Lei alcuni problemi che riguardano il possible interesse dell'industria chimica nelle macromolecole biologiche.

Con i migliori saluti.

A. Ciferri

AC: fm

Mi auguro di rivederLa in occasione di un prossimo soggiorno in Italia

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF CHEMISTRY
LOS ANGELES, CALIFORNIA 90024

December 5, 1966

Professor Dr. Guilio Natta
Institute di Chimica Industriale del Politecnico
Piazza Leanardo da Vinci
Milano, Italy

650

Dear Professor Natta:

Last year Professor Willard Libby of UCLA nominated Professor S. Winstein of our Chemistry Department for the 1966 Nobel Prize in Chemistry. Enclosed is a copy of a summary of Winstein's contributions to chemistry which I prepared in seconding the above nomination. This year I have been invited by the Nobel Committee for Chemistry to nominate a candidate for the 1967 Nobel Prize and I am preparing a nomination of S. Winstein based on his work on "Neighboring Groups and Reaction Mechanisms". Nobel Laureate Libby is also nominating Winstein. Enclosed is a copy of my present letter of nomination. A revised summary of Winstein's contributions and an up-to-date bibliography will be also forwarded to the Committee.

In my opinion, the case for Winstein is very strong, and 1967 could well be his year for the Nobel Prize in Chemistry. His work on neighboring groups and reaction mechanisms have profoundly affected every branch of the science from industrial applications to molecular biology, and yet no one in physical organic chemistry has yet been recognized by the Nobel Prize Committee.

I know that your opinion is of great value to the Nobel Committee for Chemistry. Therefore, I wonder if you would care to either nominate or support my nomination of Winstein by writing the Nobel Committee for Chemistry, Sturegatan 14, Stockholm Ö, Sweden, before the end of January, 1967. Last year I sought your support of Winstein's candidacy rather too late, and this time I hope you will support his case.

I thought you might be interested in the enclosed manuscript copy of Winstein's lecture at the Sheffield Aromaticity Symposium in July, which gives a survey of homoaromaticity phenomena. This manuscript, being published in The Chemical Society Special Publication No. 21, provides perspective on this latest and most novel development in "neighboring group effects".

Cordially yours,

D. J. Cram

D. J. Cram
Professor of Chemistry

DJC/kda
Enclosures

Vedi Nobel. Comt.
N 51 -

2 NORTH RIVERSIDE PLAZA, CHICAGO, ILLINOIS 60606 • TELEPHONE 263-0580 AREA CODE 312

MICHIGAN
CHEMICAL
CORPORATION

~~October~~ 3, 1967

Professor Giulio Natta
Direttore
Istituto Di Chimca Industriale
Del Politecnico
Piazza Leonardo Da Vinci
32 - Milano, Italy

Dear Professor Natta:

I thank you for your letter of September 27, 1967 and also for your kind and most appreciative wishes for my new position at Michigan Chemical Corporation.

a Peporaro in restituzione 10/10/67

During a recent conference in Washington, D.C. I came across a book on the chemical finishing of cotton and I thought that the original papers presented in this book would be of great interest to some investigators at your Institute. The permanent press techniques to impart durable press resistance to fabrics is currently of great interest in the United States. I found out that some substituted polypropylene derivatives and urea have been used in this process.

Please accept this book as an addition to your library.

Very cordially yours,

Joe DiPietro

J. DiPietro, Director
Research and Development

JD/ck
Enc.

REPLY TO: MICHIGAN CHEMICAL CORP. 500 NORTH BANKSON ST. LOUIS, MICHIGAN 48880

2 NORTH RIVERSIDE PLAZA, CHICAGO, ILLINOIS 60606 • TELEPHONE 263-0580 AREA CODE 312

MICHIGAN
CHEMICAL
CORPORATION

May 17, 1967

AIR MAIL

Professor G. Natta
Director, Polytechnic Institute of Milan
Chimica Industriale
Piazza L. Da Vinci
Milan, Italy

Dear Professor Natta:

It has been quite a few months since my last correspondence with you and members of your staff. Since my last letter, I have changed positions and I am presently employed at the Michigan Chemical Corporation in St. Louis, Michigan as Director of Research and Development.

In view of my company's interest in the area of flame retardants in plastics and fibers, I would like to suggest at this time that if we can ever be of any assistance to you in this particular area, (such as providing some specialty chemicals, or reactive flame-retardant intermediates, or literature) do not hesitate to let me know. In addition, our company has a leading position in the area of rare earth oxides and I believe that some of these rare earth oxides such as yttrium oxide, europium oxide, gadolinium oxide, etc., or their organic derivatives, could provide excellent catalytic systems for stereospecific catalysis. Again, if I could be of any help in this area, do not hesitate to let me know.

I hope this letter finds you and your family in good health and I hope to have an opportunity, possibly this year, to come and visit with you.

Very truly yours,

Joseph DiPietro

Joseph DiPietro, Director
Research and Development

JD:jam

REPLY TO: MICHIGAN CHEMICAL CORP. 500 NORTH BANKSON ST. LOUIS, MICHIGAN 48880

April 5, 1967

Prof.Melvin Calvin
Dept. of Chemistry,
University of California,
Berkeley, California 94720 (U.S.A.)

our ref.212/lmv

Dear Professor Calvin:

An assistant of mine, dr.Paolo FERRUTI, who works in my Institute on synthetic macromolecular chemistry, would like to spend about one year at your Institute, and work on a topic of your choice and under your direction.

I believe that this would be a very valuable experience for him, and I am glad to support his candidature.

Dr.Ferruti was born in 1938, graduated in Chemistry at the University of Pavia in 1961 (nearly your M.Sc.); from then on he has been working at my Institute as a full-time researcher in macromolecular chemistry.

Herewith enclosed, I send you the list of papers by Ferruti, either published or in press, (the titles have been translated into English), so that you may get an idea of Ferruti's experience in the field of the synthesis of monomers and of different polymers and of some of their applications to pharmacological problems.

If you feel favourable to my proposal, the question arises as to both the possibility of accepting Dr. Ferruti at your Institute (e.g. next academic year) and the availability of the necessary funds.

I support this candidature also because I am quite sure that dr.Ferruti will try to benefit by his stay with you at most and work with conscientiousness and great passion.

I would greatly appreciate your answering me on this matter at your earliest convenience, as,at this time, I should make some plans for the future research of Ferruti in Italy.

My wife joins me in sending you and Mrs.Calvin kindest regards.

Giulio Natta

14.12.1967

ns.rif.N.626/rl

Egr.
Prof.A. Ciferri
Chemstrand Research Center
Box 731
Durham, N.C. 27702 - USA

Egregio Professore,

apprendo dalla Sua gentile lettera del 27.11, che Lei tornerà in Italia nel prossimo gennaio e sarò lieto di vederLa quando si sarà stabilito a Genova.

Colgo l'occasione per inviarLe i migliori auguri per le prossime feste.

Cordiali saluti.

G.Natta

Jan.20, 1967

Dr.D.J.Cram,
Dept. of Chemistry,
University of California
Los Angeles, California 90024

r ref.49/lmv

Dear Professor Cram:

I am glad to inform you that also Prof.Bonino of the University of Genoa, who has been invited by the Nobel Committee to send his nomination, will propose Prof.Winstein.

Kindest personal regards,

Giulio Natta

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF CHEMISTRY
LOS ANGELES, CALIFORNIA 90024

18 G
37

January 11, 1967

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I was of course very pleased to hear you are willing to support Professor Winstein's candidacy for the 1967 Nobel Prize.

I am sure your support will be an important factor should the Committee see fit to give him the award this year.

Please accept my best wishes for a Happy New Year.

Cordially yours,

D. J. Cram

D. J. Cram
Professor of Chemistry

DJC:rb

Tel. Simonetta 297900

Dec.22, 1966

Prof.D.J.Cram,
Dept. of Chemistry
University of California,
Los Angeles, Calif.90024 (U.S.A.)

our ref.650/lmv

Dear Professor Cram:

This is in reply to your letter of Dec.5, 1966. I wish to thank you for reminding me Prof.Winstein for the 1967 Nobel Prize nomination.

I do highly appreciate Winstein's contributions to chemistry and will personally write my nomination to the Nobel Committee, before January 31, 1967.

I only hope that this nomination will not be hindered as Winstein would be the third American in three consecutive years, awarded with the Nobel Prize.

As a matter of fact, Winstein's contributions are quite different from those of other organic chemists (often with biological trends) who got the Nobel prize in the last years. On the other hand, the chemical physical studies of organic chemistry represent one of the most interesting features of Winstein's activity.

I will send you a copy of my proposal as soon as ready.

Kindest personal regards.

Giulio Natta

Ann

William J. DeSilva
902 N. Los Robles Ave.
Pasadena, Calif. 91104
U.S.A.

Mr. Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Milan, Italy
Europe

October 7th, 1967

Dear Sir:

Could you please send me technical data and, or perhaps a report paper on your research pertaining to the "Chemical Fiber Engine" that uses a structural transformation in a synthetic polymer to perform work as a human tendon or muscle.

I shall be most happy to recieve whatever data on this sudject you may be willing to send me.

I thank you for your time and consideration.

I am cordially:

William J. DeSilva

inviati
N 851 e 852
16/10/67

11.10.1967

ns.rif.N.536/rl

Dr.J. DiPietro, Director
Research and Development
Michigan Chemical Corporation
2 North Riverside Plaza
Chicago, Illinois 60606 (USA)

Caro DiPietro,

ho ricevuto la sua lettera del 3 u.s. e desidero ringraziarLa per il gentile invio del volume sul finissaggio chimico del cotone che leggeremo con interesse.

I migliori saluti.

Giulio Natta

THE UNIVERSITY OF WISCONSIN
MADISON 53706

DEPARTMENT OF CHEMISTRY
Chemistry Building

June 27, 1967

Professor Giulio Natta
Instituto di Chimica Industriale del Politecnico
Plazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta: Ref. 355/lmv

I was very pleased to receive your letter of June 7 concerning Dr. Giancarlo Locati. We do, of course, have work in progress on the mechanical properties of polymers. However, I am afraid that it would not be possible for me to invite Dr. Locati within the next two years, since I shall be on leave for the calendar year 1968 (first at Strasbourg, later in Japan) and activity in my laboratory will be diminished during that period. Afterwards, I am not sure about my budget, but perhaps something could be arranged starting in 1969. This would depend on availability of Government funds, which cannot be predicted at present. However, we can correspond about it next year if he is still interested.

With very best regards,

Sincerely yours,

John D. Ferry

JDF/bjg

1969 [illegible]

Product Engineering McGraw-Hill's publication for design engineers

330 West 42nd Street, New York 10036

March 29, 1967

Dr. Giulio Natta
Istituto Di Chimica Industriale Del Politecnico
Piazza Leonardo Da Vinci, 32
Milan
Italy

Dear Dr. Natta:

Thank you for your letter of March 21, and for sending the copy of your paper. I am preparing a small news story, and will send you a copy when it is published.

Sincerely yours,

Anne Gardner

AG:vg

Product Engineering McGraw-Hill's publication for design engineers

330 West 42nd Street, New York 10036

179

March 14, 1967

Dr. Giulio Natta
Montecatini Soc. Gen.
Largo G. Donegani 1-2
Milan
Italy

Dear Dr. Natta:

I understand that you have developed a polymer "engine" which differs from the old rubber heat engines and from the contraction engine developed in Israel. I should appreciate any information you can give me on your system and its possible uses.

Thank you.

Sincerely yours,

Anne Gardner

AG:vg

P. S. Would you be kind enough to address your reply specifically to me as follows: Anne Gardner, Product Engineering, 330 W. 42 Street, New York, N. Y. 10036, U.S.A.

INSTITUTE OF POLYMER SCIENCE
THE UNIVERSITY OF AKRON
AKRON, OHIO 44304

April 6, 1967

227

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italia

Dear Professor Natta:

Thank you for your kind letter of March 30th.

I look forward to meeting you and your colleagues on Tuesday, May 9th, and I will also be pleased to give a seminar then on our work on Elastic Instabilities.

Yours sincerely,

A.N. Gent.

A.N. Gent
Prof~~essor~~ of Polymer Physics
and Assistant Director

ANG:jw

Ann.

Dick Hall, Community Worker
4751 North Monticello
Chicago, Illinois 60625
U.S.A.

May 19, 1967

Mr. Giulio Natta
Via Mario Pagano 54,
Milan, Italy

Dear Mr. Natta,

I am writing to you on behalf of the boys and girls, ages 7-19, with whom I work as a community-neighborhood social group worker in Chicago, Illinois.

It is our aim to help these young people broaden their scope and outlook on life by encouraging them to help themselves. Many of them are taking part in a program to become familiar with and study prominent figures in all walks of life ranging from arts to national and international governmental responsibilities. Through this program the children will be able to grow into more responsible citizens concerned not only for their own welfare but also for the welfare of others.

During the past three years, we have been collecting and displaying the autographs and photographs of people in many varied fields of endeavor. We have requested and received over two-thousand replies from people in over 60 countries.

Initially, we do research to determine those persons in whom we are interested and then request their autograph. Upon receiving a reply, we do a thorough study and mount their autograph and photograph with the study for a greater segment of the children to see and by which they, also, may learn.

As a result of our studies, we wish to request your autograph so we might proudly include it as a part of our study and display. We hope you will be able to comply with our request. It has been thrilling for the children to see noted personalities who seem so distant reply personally to their request.

I have explained to the children that such positions of prominence leave little time for such matters because of many obligations. Therefore, they will greatly appreciate any reply your kindness might allow you to make.

Mr Wate
to get
autograph
1h/7/67

With Much Thanks, I Am,

Very Truly Yours,

Dick Hall

Dick Hall,
COMMUNITY WORKER, GROUP LEADER

719 North Centre St.,
Pottsville, Pa.,
Feb. 7th, 1967.

Prof. Giulio Natta,
Institute of Technology,
Milan, Italy.

Dear Prof. Natta:-

I am a student at Nativity B.V.M. High School in Pottsville, Penna. and I chose as my Science Fair Project to do a research paper on the Nobel Prize Winners in Chemistry.

I would greatly appreciate any information which I could use in this research paper, pertaining to your accomplishments.

Many thanks for any pertinent data which you deem appropriate for a description of your work.

Gratefully yours,
Margaret M. Holahan
Margaret M. Holahan

Conf. Nobel e altre, per articoli su PL

INDUSTRIAL

8 STRAIGHT YEARS OF ADVERTISING GAINS. REQUEST CIRCULATION: 80,000

INDUSTRIAL RESEARCH INC.

November 20, 1967

Dr. Giulio Natta
Via Mario Pagono 54
Milan, Italy

Dear Dr. Natta:

Enclosed is a galley proof of your forecast article for the January issue of Industrial Research. Michael Sinclair has asked me to send it to you so that you may check it for any errors that may have crept in in the process of editing and typing, typesetting, etc.

Should you discover anything that needs to be changed, please call Mike collect no later than Tuesday, November 28, as that will be the last possible day for corrections.

We enjoyed having the opportunity to work with your manuscript, and look forward to seeing the article in print.

Sincerely,

INDUSTRIAL RESEARCH

F. Richard Adams

F. Richard Adams
special projects editor

pak

EXECUTIVE OFFICES BEVERLY SHORES, IND. 46301 219/872-9685

Sept. 27, 1967

Joseph DiPietro, Ph.D.
Director Research & Development
Michigan Chemical Corp.
500 North Bankson
St.Louis, Michigan 48880 (U.S.A.)

ns.rif.324/lmv

Caro Di Pietro:

La prego di scusarmi se ho ritardato a rispondere alla sua gentile lettera del 17 maggio.

Per prima cosa desidero rallegrarmi vivamente con lei per la posizione che ha alla Michigan Chemical Corporation e le faccio i più vivi auguri per il suo lavoro.

Terremo senz'altro presenti i prodotti chimici speciali prodotti dalla sua Società, nel caso occorressero per le nostre ricerche.

Con rinnovati rallegramenti, invio i migliori saluti.

Giulio Natta

April 20, 1964

Mr. Philip Meshberg,
EMSON Research Inc.
118 Burr Court
Bridgeport, Conn., 06605 (USA)

our ref. 251/eg

Dear Mr. Meshberg:

With regard to your letter of April 12 (PM/jlh), I confirm you that in Italy, Montesud Petrolchimica, a consociate of Montecatini-Edison S.p.A. started the commercial production of synthetic elastomers consisting of ethylene-propylene co polymers.

Therefore, you may apply for the information you desire to:

Montesud Petrolchimica
Largo Donegani 1-2
Milano (Italy)

Sincerely yours,

Giulio Natta

EMSON
RESEARCH
INCORPORATED

Manufacturers of ***Metered*** *and Non-Metered Valves for All Types of Products Dispensed under Pressure.*

118 BURR COURT
BRIDGEPORT, CONN. 06605
TEL. 336-2553

[illegible] 11, [illegible]

Dr. Philip Matta
Polytechnic Institute of Milan
Milan, Italy

Dear Sir:

We recently heard that you have been granted a patent further 3,262,[illegible] for rubber-like plastics. We would appreciate it if you could advise us whether this material is to be being produced either in Europe or in this country, and the names of the firms who can supply this material for in-house molding. Awaiting your reply---

Very truly yours,

EMSON RESEARCH INC, INC.

Philip Leathers

P.L./jlh

Ferr

July 12, 1967

20133

Dr.John D.Ferry,
Dept. of Chemistry,
Chemistry Building,
The University of Wisconsin,
Madison 53706 (U.S.A.)

our ref.411/lmv

Dear doctor Ferry:

Thank you for your kind letter of June 27, 1967 concerning dr.Locati. I know that he has already written to you about his plans - in any case, it seems to early now to think of 1969.

Thanking you very much again for your interest, I send you kind regards.

Giulio Natta

March 21, 1967

Miss Anne Gardner,
Product Engineering
330 W.42 Street,
New York, N.Y.10036 (U.S.A.)

our ref.179/lmv

Dear Miss Gardner:

With regard to your request of March 14, I send you under separate cover, the preprint of two notes we published in the January issue of "Chimica e Industria" (Milan) on the thermodynamic examination of the polymorphous transition of trans-1,4 polybutadiene.
I hope they may be of some help to you.

Sincerely yours,

Giulio Natta

March 30, 1967

Prof.A.N.Gent, Assnt.Director
Institute of Polymer Science,
The University of Akron,
Akron, Ohio 44304 (U.S.A.)

our ref.206/lmv

Dear Professor Gent:

I have been told by Dr.Flisi that you will come to Milan next May.

On that occasion, I am glad to invite you to visit my Institute and to deliver a seminar on the Elastic Instabilities of Rubbers, on May 9 at 4 p.m.

Looking forward to meeting you, I send you my kindest regards.

Giulio Natta

Feb.21, 1967

Miss Margaret M.Holahan,
719 North Centre Str.,
Pottsville, Pa.

our ref.95/lmv

Dear Miss Holahan:

This is in reply to your letter of Feb.7 addressed to Prof.Natta.

Under separate cover, we have sent you some material which, we hope, may interest you. If you think that we may be of further help to you, do not hesitate in contacting us again.

Kind regards,

the secretary to

Prof.Natta

minuti - 678 - 682 - 814
fu articolo Giulio su Chim. e Ind
e conferenze di Rimini

title—Polymers

author—by Dr. Giulio Natta, professor and director, Industrial Chemistry Dept., Polytechnic Institute of Milan, and 1963 *Nobel laureate in chemistry*

ALTHOUGH macromolecular compounds have been used widely in the course of the ages as building materials (for example, cellulose, natural rubber, etc.) and they constitute the basis of all living organisms, both animal and vegetable (starch, proteins, etc.), macromolecular chemistry rose to the dignity of science only about 30 years ago.

At that time, Herman Staudinger, 1953 Nobel laureate in chemistry, in his fundamental research, laid the foundations of the study and knowledge of that science.

Since then, macromolecular science has developed not only due to the better knowledge of macromolecular natural products, but because several new products have been synthesized that exhibit different properties based on the conformation of their molecules.

The new methods of stereospecific polymerization recently have acquired great importance. They allow the synthetic production of macromolecular substances identical with the natural ones, such as *cis*-1,4 polyisoprene (identical with natural rubber), and of new types of stereoregular macromolecules.

New methods of polymerization also allow us to obtain a *trans*-1,4 polymer of isoprene, which exhibits an identical structure with that of gutta-percha rubber.

Amorphous polymers, and, in particular, the copolymers with ethylene, exhibit properties of elastic rubbers and are used largely as synthetic rubbers.

Stereospecific polymerization has considerably increased the spectrum of synthetic macromolecular chemistry, especially because new, as well as previously known, monomers may be used for the production of new polymers having particular physical properties.

Some polymers of alpha-olefins and butadiene, copolymers of ethylene and propylene, polyesters, and polyamides have spawned new applications in the fields of plastics, textiles, and synthetic rubbers.

The stereospecific polymerization of diolefins also is of great interest. It yields products that present different

obtain a completely amorphous polymer.

If monomer units with the same configuration are combined in chain segments, block polymers form; they still exhibit some crystallinity, but their x-ray diffraction spectra reveal the presence of bands that are broader and less intense than those characteristic of highly isotactic and well-crystallized polymers.

Also, syndiotactic polypropylene, which was prepared in our institute, is crystalline. However, having a lower melting temperature than the isotactic polymer, it is of less practical interest than the latter.

Isotactic polymers may be obtained only in the presence of heterogeneous catalysts generally consisting of a transition metal halide (with a valence lower than the maximum), insoluble in the reaction medium, and of an alkyl organometallic compound.

Less stereospecific

Both steric purity and homogeneity of the polymers depend on the catalyst constitution. Actually, a catalyst prepared from pure and microcrystalline violet $TiCl_3$ yields a polymer predominantly consisting of isotactic molecules. However, a catalyst also containing $TiCl_3$ — but obtained by cold reduction of $TiCl_4$ with organometallic compounds—consists of a heterogeneous mixture of titanium chlorides with a different degree of oxidation and of crystallinity. The resulting compound is less stereospecific from a catalytic point of view.

On the other hand, high yields of syndiotactic polymer are obtained in the presence of some homogeneous catalysts. For example, the catalysts obtained by reaction of a solution of vanadium tetrachloride with aluminum diethyl monochlorine, exhibit a high stereospecificity for the production of syndiotactic polymers at low temperatures.

Among the synthetic products obtained by the polymerization of diolefins, I mention the four fundamental polymers of butadiene. Among them, the *cis*-1,4 polybutadiene is of practical interest, as it is a synthetic rubber that will crystallize spontaneously only below 2 C. At higher temperatures, it can crystallize under stretching like natural rubber; it has an excellent tensile strength and elongation at break. *Trans*-1,4 polybutadiene exhibits high crystallinity also in the unstretched state and a high melting

properties, depending on the structure and configuration of the monomer units.

It is possible to obtain polymerization products from the same starting material that have different physical properties. This, of course, depends on their molecular weight and especially on the structure of the macromolecules constituting them.

Crystalline polymers

A regular succession of single monomer units generally is accompanied by a crystallinity that produces polymers with high melting temperatures, good mechanical properties, and an orientability of the molecules of the stretched products, which generally allows the production of valuable crystalline textiles.

The isotactic polymer of propylene, with macromolecules characterized by the presence of monomer units with the same configuration, actually exhibits a high crystallinity below melting temperature (about 170 to 180 C). Valuable plastics, textiles, and films obtained from polypropylene are produced commercially all over the world.

The isotactic polymers of α-olefins can crystallize. The stereoregularity of isotactic poly-α-olefins often is high. Crystallinity decreases with increasing steric irregularities. Generally 30% of randomly distributed non-isomorphous monomer units is enough to temperature (about 145 C).

Polybutadiene-1,2 was obtained in two stereoisomeric forms — isotactic and syndiotactic respectively. Both are crystalline. However, these polymers are of little practical interest, unlike 1,4 polymers, due to the relatively low flexibility of the chain.

From a scientific point of view the synthesis of stereoregular, optically active alkyl polysorbates is of considerable interest. Because they are obtained from monomers having no optical activity, the corresponding macromolecules consist of monomer units with the same configuration.

The above reveals the importance of both chemical and steric regularities on the physical and technological properties of linear high polymers.

My earlier remarks about the synthesis and properties of polypropylenes with different steric structures obviously may be extended to all polymers (hydrocarbon or not) of asymmetric vinyl monomers.

Therefore, stereospecific polymerization allows one to obtain valuable products from monomers that otherwise would have no practical interest.

In fact, by the old processes of polymerization, they mostly yielded low-molecular-weight polymers with an irregular structure due to the irregularity in the succession of the monomer units of different configuration. ■

INDUSTRIAL

8 STRAIGHT YEARS OF ADVERTISING GAINS. REQUEST CIRCULATION: 80,000

INDUSTRIAL RESEARCH INC.

3/8

October 12, 1967

Dr. Giulio Natta
Via Mario Pagono 54
Milan, Italy

Dear Dr. Natta:

Just a brief note to remind you that in about two weeks I will be needing your essay on polymer chemistry as well as a brief biography and an informal photograph of you. I am stressing the need for you to maintain your deadline because the overseas mail generally takes considerably longer than our domestic mail. Another reason I am stressing this deadline is because the number of Nobel laureates and research directors appearing in January will make it necessary for us to devote an exceptionally large amount of editorial time to this issue.

I am looking forward to receiving your essay.

Sincerely,

INDUSTRIAL RESEARCH

P. Michael Sinclair

P. Michael Sinclair
technical editor

ak

EXECUTIVE OFFICES BEVERLY SHORES, IND. 46301 219/872-8685

INDUSTRIAL RESEARCH INC.

8 STRAIGHT YEARS OF ADVERTISING GAINS. REQUEST CIRCULATION: 80,000

September 21, 1967

Dr. Giulio Natta
Via Mario Pagono 54
Milan, Italy

Dear Dr. Natta:

I thought you might be interested to know the names of the other Nobel laureates and research directors appearing in the special January issue of Industrial Research with you.

The Nobel laureates include:

Dr. Selman A. Waksman
Lord Alexander Todd
Dr. Arthur Kornberg
Dr. Joshua Lederberg

The research directors of major U.S. corporations who will be reporting on advances in their industry include:

Dr. Michael Ference, Jr.--Ford Motor Co.
Dr. Arthur M. Bueche--General Electric Co.
Mr. Elmer P. Wheaton--Lockheed Missiles & Space Co.
Dr. William F. Ballhaus--Beckman Instruments
Dr. David McQueen--E. I. du Pont de Nemours & Co.
Mr. M. W. Lightner--Uinted States Steel Corp.

As I have said before, we will need a copy of your essay no later than November 1. Along with the essay please include a brief biographical sketch of yourself and an informal photograph.

I am looking forward to reading your essay. If you have any questions, please feel free to call or write to me.

Sincerely,

INDUSTRIAL RESEARCH

P. Michael Sinclair

P. Michael Sinclair
technical editor

EXECUTIVE OFFICES BEVERLY SHORES, IND. 46301 219/872-8685

INDUSTRIAL

8 STRAIGHT YEARS OF ADVERTISING GAINS. REQUEST CIRCULATION: 80,000

INDUSTRIAL RESEARCH INC.

M'consiglia di informarsi!

September 6, 1967

Dr. Giulio Natta
Via Mario Pagono 54
Milan, Italy

Dear Dr. Natta:

I am extremely pleased that you will be able to author a brief essay on the expected advances and future trends in the field of polymer chemistry for our special January issue of Industrial Research.

We will need to receive your article no later than November 1. If we receive it by that date, this will give us time to send you galley proofs of the article prior to publication.

al Pf.
11/9/67

I am including a copy of the articles by Nobel laureates that appeared in last year's January issue to give you an idea of the type of article we need.

We are also preparing an editorial information brochure prior to the publication of this issue and need an informal photograph of you as soon as possible.

When you send in your article, will you also please include a brief biography of yourself. If I can be of any assistance, please do not hesitate to write. I will be looking forward to seeing your essay.

Sincerely,

INDUSTRIAL RESEARCH

P. Michael Sinclair

P. Michael Sinclair
technical editor

pak

EXECUTIVE OFFICES BEVERLY SHORES, IND. 46301 219/872-8685

INDUSTRIAL RESEARCH INC.

8 STRAIGHT YEARS OF ADVERTISING GAINS. REQUEST CIRCULATION: 80,000

August 3, 1967

Dr. Giulio Natta
Via Mario Pagono 54
Milan, Italy

Dear Dr. Natta:

I have tried unsuccessfully to reach you by telephone a number of times this week, but since you were not available, I thought I had better write.

Industrial Research magazine is planning to publish an entire January issue devoted to brief forecast articles by Nobel laureates and research directors of major American Corporations. I am writing to invite you to prepare one of the articles.

We would like you to do an article of about 1,000 words that reports on the progress in polymer chemistry and discuss some of the significant advances that can be expected in the next year or so.

A $100 honorarium will be paid upon publication. The article would be due about November 1.

Last year, a similar issue was published that featured articles by several Nobel laureates including Drs. John Bardeen, Linus Pauling, Willard F. Libby, Owen Chamberlain, and Eugene P. Wigner. We will have six articles by Nobel laureates in different areas of scientific research this year.

We realize that you have a full schedule, but we hope you will be able to find time to prepare this relatively brief article for the benefit of the 80,000 scientists, engineers, and research managers who receive Industrial Research regularly.

EXECUTIVE OFFICES BEVERLY SHORES, IND. 46301 219/872-8685

It would be most helpful if you could let me know your decision within the next week or two. Thank you.

Sincerely,

INDUSTRIAL RESEARCH

P. Michael Sinclair

P. Michael Sinclair
technical editor

bfs

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, July 7, 1967

TELEF. [illegible]

Prof.John D.Ferry,
Dept. of Chemistry,
Chemistry Building,
The University of Wisconsin
Madison 53706 (U.S.A.)

our ref. 411/lmv

Dear Professor Ferry:

Prof.Natta gave me your letter from which I see that you cannot offer me a position for next year.

I am sorry because I had hoped to undertake an interesting experience in your laboratory; I would like you to know, however, that next year I will be in the U.S., invited by Prof.Tobolsky and I hope I may visit your laboratory.

I thank you very much for your kind interest and send very best regards,

Giancarlo Locati

Prof Pasquon

SYRACUSE UNIVERSITY

DEPARTMENT OF CHEMICAL ENGINEERING AND METALLURGY

315 HINDS HALL | SYRACUSE, NEW YORK 13210
TELEPHONE 315 | 476-5571 | EXTENSION 2558

December 13, 1967

Professor Giulio Natta
Instituto Di Chimica Industriale
Del Politechnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Professor Natta:

I am writing to inform you of the progress which Mr. Guilio Tommasi, one of your former students, has made as a graduate student here at Syracuse University. Mr. Tommasi has been a very excellent student. As a matter of fact, I believe he is the best student I have encountered in many years in graduate education in the United States. Mr. Tommasi will complete the requirements for his Master's Degree in Chemical Engineering on or about February 1, 1968. He plans to return to Italy after completing the master's degree and will accept employment with the Shell Oil Company in Italy.

We have found Mr. Tommasi to be exceedingly well prepared for graduate education in chemical engineering. He is a brilliant student and has been encouraged to continue his studies for the Doctor of Philosophy Degree. He has, however, elected to return home and accept a position in industry as stated above. Quite possibly this is a wise decision as Mr. Tommasi feels the Doctor of Philosophy Degree is an unnecessary degree in European industry today.

Mr. Tommasi, in addition to being an excellent student, is a very pleasant and likeable person and it has been a real pleasure for us to have him as a graduate student.

I am sure you are aware that Mr. Giacomo Mauri from the Milan Politechnic is also a graduate student with us. Mr. Mauri has done extremely well and will probably complete his Master's Degree in Chemical Engineering on or about September 1968.

The Department of Chemical Engineering and Metallurgy would be interested in receiving additional applications from students from Milan Politechnic. I believe our assistantships offer excellent opportunities for students who are interested in coming to the United States to continue their studies in chemical engineering. Some differences do exist in emphasis in the educational programs in the United States and Europe and a year or two of study in the United States would be useful for many of your students.

In addition to seeing a different approach to engineering education, it affords them experience in learning to speak English, which will be of value to them throughout their lives.

I have enclosed a brief research write-up which will give you some information regarding the research which is being conducted in this Department. Also enclosed is a copy of our graduate catalog.

Should there be any additional students at Milan Politechnic who are interested in attending the Graduate School at Syracuse University, please have them contact me directly. Your assistance in helping Mr. Tommasi come to the United States and attend Syracuse University is sincerely appreciated. We believe it has been a mutually beneficial relationship both for Mr. Tommasi and the University.

Very truly yours,

James A. Luker

James A. Luker
Chairman, Department of
Chemical Engineering and Metallurgy

JAL:ng

WESTERN NEW YORK NUCLEAR RESEARCH CENTER, INC.

A SUBSIDIARY OF STATE UNIVERSITY OF NEW YORK

RALPH F. LUMB
DIRECTOR

POWER DRIVE
BUFFALO, NEW YORK 14214

January 25, 1967

REF: 19/lmv

Mr. Giulio Natta
Istituto Di Chimica Industraile
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano

Dear Mr. Natta:

Thank you very much for your letter of January 16 and the reprint. I shall follow up your suggestion of contacting the Phillips Petroleum Company.

Very truly yours,

R. F. Lumb

for PB 1,4 trans

August 31, 1967

Mr. P. Michael Sinclair
INDUSTRIAL RESEARCH INC.
Executive Offices
Beverly Shores, Ind.46301

our ref.485/eg

Dear Mr. Sinclair:

I apologize for answering your letter of August 3 only now - my delay is due to my absence from Milan for Summer Holidays.

I gladly accept to write the short article you request for "Industrial Research", and will send it to you by November 1967.

Kind regards.

G. Natta

April 17, 1967

Dr. Stephen J. Lippard
Department of Chemistry
Columbia University
New York, N.Y.

Dear Doctor Lippard:

The April 1967 program of the New York Academy of Sciences reports that you delivered a lecture on "Stereochemically Dynamic Organometallic Compounds".

If possible, I would greatly appreciate receiving a reprint of it.

Thank you and kind regards.

G. Natta

Feb. 8, 1968

Prof.James A. Luker,
Dept. of Chem. Engineering and Metal.
Syracuse University,
315 Hinds Hall,
Syracuse, New York 13210 (USA)

our ref. 76/lmv

Dear Professor Luker:

Thank you very much for your kind letter of Dec.13. My delay in answering is due to the fact that I got it only on Feb.2.

I am extremely glad that you appreciate Mr.Tommasi: we also remember him as an excellent student. I am also glad that Mr. Mauri is doing well.

It is very kind of you to offer my students the opportunity to widen their knowledges and to open new vistas. I fully understand that it is of great importance for my students to attend your Graduate School.

I will certainly contact you when the opportunity comes to send you further applications.

Thanking you very much again for all your kindnesses, I send you my best personal regards.

Giulio Natta

Jan.16, 1967

Dr.R.F.Lumb,
Western New York Nuclear Research
Center, Inc.,
Power Drive,
Buffalo, New York 14214 (U.S.A.)

our ref.19/lmv

Dear doctor Lumb:

This is in reply to your letter of Jan.9. Trans-1,4 polybutadiene should be available in the U.S. in small amounts for research purposes, e.g. at Phillips Petroleum Co.

The fibers mentioned in the article you sent to me were obtained by us with a trans-1,4 polybutadiene, prepared in this Institute, exhibiting very high steric purity (trans-1,4 units content higher than 99.7%) and high crystallinity.

Under separate cover, I send you the reprint of our paper (in Italian) that describes the preparation of the trans-1,4 polybutadiene used for our experiment.

The polymer to be used for the preparation of the fiber must be purified from inorganic components derived from the catalyst.

With kind regards,

Giulio Natta

Oct.27, 1967

Mr.P.Michael Sinclair
INDUSTRIAL RESEARCH INC.
Executive Offices,
Beverly Shores, Ind. 46301 (U.S.A.)

577

Dear Mr.Sinclair:

According to your request of Aug.3, I send you my article for Industrial Research: The Stereospecific Polymerization .

With kind regards.

Giulio Natta

WESTERN NEW YORK NUCLEAR RESEARCH CENTER, INC.
POWER DRIVE
BUFFALO, NEW YORK 14214

OFFICE OF THE DIRECTOR

TELEPHONE
716-831-2826

January 9, 1966

Professor G. Natta
Industrial Chemistry Department
Milan Institute of Technology
Milan, Italy

Dear Professor Natta:

I recently read with interest your preparation of pure trans-1,4-polybutadiene fibers and their interesting properties. A copy of the brief article is enclosed for your information.

I am quite interested in doing some applications research which could utilize materials with this characteristic. Could you please advise if fibers of trans-1,4-polybutadiene are available and under what terms. Your assistance in this matter would be greatly appreciated.

Very truly yours,

R. F. Lumb

BLM

Enclosure

DR. RICHARD MAYERSON
516 EAST OLTORF STREET
AUSTIN, TEXAS 78704

June 4, 1967

Dear Dr. Natta:

I am writing to ask a very great favor of you. I am attempting to form a collection of the autographs of those persons who have received the Nobel Prize in Chemistry in recent years, on specially prepared envelopes bearing stamps issued to honor the Chemist.

As you were the receipient of this award in 1963 I have enclosed such a special envelope and I would be most grateful if you were to autograph it in the space on the front of the envelope that is indicated and nowhere else, please! I make this last request as I would like to have all the special envelopes in my collection signed in the same manner.

An Italian stamped envelope is enclosed for your convenience in returning the autographed envelope to me. Please use this return envelope as I would like to have the stamps that are on it, in used condition, for my stamp collection.

Thanking you very much for your time and trouble in answering my requests, I remain-

Very sincerely yours,

Richard Mayerson

Richard Mayerson, DSC

iniato
22/11/67

MECHANIX ILLUSTRATED
The How-To-Do Magazine
67 WEST 44TH STREET
NEW YORK, NEW YORK 10036 • 661-4000

May 18, 1967

Mr. G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Dear Doctor Natta:

Thank you very much for the material you sent me on the polymer engine. I would appreciate it if you would keep me informed of any new developments that occur. Thank you very much.

Sincerely,

J. Robert Connor
Feature Editor

JRC:pg

MECHANIX ILLUSTRATED
The How-To-Do Magazine
67 WEST 44TH STREET
NEW YORK, NEW YORK 10036 • 661-4000

77

February 2, 1967

Messrs. Natta, Pegoraro, Szilagyi
Politecnico
Piazza L.da Vinci, 32,
Milan, Italy

Gentlemen:

We noted with great interest a news story in Chemical and Engineering News here in the United States which described the polymer engine which you have developed. My reason for writing to you is to ask if you have any photographs and a description of this new engine? If this material is available, I would very much like to see it for possible use in Mechanix Illustrated magazine.

Thank you for your kind consideration.

Sincerely,

J. Robert Connor
Feature Editor

JRC:pg

DR. MARIO MORSELLI

Se. Burlington, Vt. 4 marzo 1967
Kennedy Drive

Prof. Giulio Natta
Milano

Illustre Professore,

mi permetto di disturbarLa solo per pochi minuti.
Ho fatto domanda recentemente all'Universita' di Yale per essere ammesso ad un Graduate Course in Storia della Scienza. Mi chiedono ora referenze sul periodo di lavoro che nel lontano 1947 trascorsi presso il Suo Istituto quando vi erano ancora, come Lei certo ricorda, Rigamonti, Baccaredda e Pino.
Le sarei infinitamente grato se Lei facesse completare dalla Sua Segreteria il modulo che qui allego riinviandolo poi direttamente a Yale, New Haven Conn.
Sono sicuro che la Sua referenza mi potra' essere di grandissimo aiuto in questa occasione.
Lavoro ora all'Universita' del Vermont dopo aver lasciato l'industria nel '63 ma dopo tanti anni d'America il mio ricordo per Lei e' sempre immutato.
E, naturalmente, dalle pubblicazioni seguo sempre con vivissimo interesse il Suo lavoro.
Se Lei mai venisse con la Signora a Montreal me lo faccia sapere; siamo solo a 100 km.

La prego ancora di scusarmi per il disturbo che Le arreco, La ringrazio infinitamente e con vivissima riconoscenza La saluto.

Suo M. Morselli

Mario Morselli

Ringraziamo che lei si dica
Prossimo il
ma l'argomento

INSTITUTE OF POLYMER SCIENCE
THE UNIVERSITY OF AKRON
AKRON, OHIO 44304

MAURICE MORTON
DIRECTOR

March 3, 1967

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Further to my letter of February 15, I am writing to let you know that there has been a slight change in my plans, so that I would like to propose May 23 as the day for my visit. I hope that this day will still be convenient for you and I shall look forward to your reply.

With kind regards,

Sincerely yours,

Maurice Morton

Maurice Morton

Dawson –
Pirini –
Flori

MM:bz

Ed Lawton
7035 Mary Ellen Avenue
North Hollywood
California 91605 U.S.A.

Ans

April 22, 1967
7035 Mary Ellen Ave.
No. Hollywood
Calif 91605
USA

Giulio Natta
54 Via Maria Pagano
Milan, Italy

Sir:

My name is Ed Lawton. I have an autograph collection of important and distinguished persons who have dedicated their lives to the betterment of the world through science. I am writing you this letter in the hopes that you will send me yours to add to my collection. I know that you received major recognition for your research in 1963 when you received the Nobel Prize in Chemistry.

I would be very proud to have your signature represented in my collection.

Thank you very much.

Respectfully,

Ed Lawton

Photo
Sent 14/7/67

INSTITUTE OF POLYMER SCIENCE
THE UNIVERSITY OF AKRON
AKRON, OHIO 44304

MAURICE MORTON
DIRECTOR

February 15, 1967

107

Professor Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

In connection with my forthcoming trip to England to attend the International Rubber Conference at Brighton on May 15-18, I am planning to include several additional visits to European institutes and universities.

I would therefore very much like to visit your institute on Monday, May 22, and to spend the entire day for this visit. If there is time, and it is convenient to you, I could also give an informal lecture to your staff on some of our recent findings in the organolithium-initiated polymerizations of dienes. Alternately, I could talk on some of our recent work on the synthesis and properties of styrene-diene block polymers, which I am presenting earlier that month at the Montreal meeting of the Division of Rubber Chemistry, ACS. At any rate, I would very much like to discuss research topics of mutual interest with your staff during this visit.

Seminar

1 afternoon

Will you please let me know at your earliest convenience whether the above date would be suitable, since I would like to make my plans definite as soon as possible.

With kind regards,

Sincerely yours,

Maurice Morton

Maurice Morton

MM:bnz

~~Giuliano~~ ~~andre~~ Flisi

Columbia University in the City of New York | New York, N.Y. 10027

DEPARTMENT OF CHEMICAL ENGINEERING Terrace Building

May 22, 1967

Professor Guilo Natta
Instituto di Chimica Industriale del Politechnico
Piazza Leonardo da Vinci, 32
Milano, ITALY

Dear Professor Natta:

Thank you for your letter of April 18 regarding my visit to your institute. I would like to confirm June 22 as the date of my visit. Provedi

With kindest regards, I am

Sincerely yours,

George Odian

George Odian
Assistant Professor

GO:bg

Visitech Istituto con Busi

Columbia University in the City of New York | *New York, N.Y. 10027*

DEPARTMENT OF CHEMICAL ENGINEERING

Terrace Building

April 14, 1967

Professor Guilio Natta
Instituto di Chimica Industriale del Politechnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter regarding my visit to your laboratories. I will be arriving in Milano on June 20 and leaving on June 23. I plan on visiting your Institute on either June 21 or June 22. If one of these dates is more satisfactory for you, kindly let me know.

I look forward to my visit.

va bene
di cui lui
dice
prima che
preferisce

Sincerely yours,

George Odian

George Odian

GO:bg

(avvisare
Parsons)

Columbia University in the City of New York | *New York, N.Y. 10027*

DEPARTMENT OF CHEMICAL ENGINEERING Terrace Building

January 23, 1967

Professor Guilio Natta
Industrial Chemistry Research Center
Polytechnic Institute of Milan
Milan, Italy

Dear Professor Natta:

I will be in Europe this summer to attend the Macromolecular Symposium in Brussels and would very much be interested in visiting you and your facilities for a day or so. I would tentatively plan on visiting you in late June or early July. If this is agreeable to you, I can then give a definite date for my visit.

Thank you in advance for your kind cooperation in this matter.

Sì
ci avvisi
con un
certo
anticipo

Sincerely yours,

George Odian

George Odian
Assistant Professor

GO:bg

February 9, 1967

Dr. J. Robert Connor
MECHANIX ILLUSTRATED
67 West 44th Street
New York, New York 10036

our ref. 77/eg

Dear Doctor Connor:

This is in reply to your letter of February 2, 1967 (JRC: pg). I wish to inform you that two articles (the preprints of which are being sent to you under separate cover) have been published in Chimica e Industria (Milan).

As the practical yields are very low, I think that the system to produce work from heat by the cycle indicated in our papers cannot present any practical interest : therefore I do not wish to make further publications on the topic.

We are now studying other cycles with other polymers; if we obtain the results foreseen, we will inform you.

Kind regards.

G. Natta

20.3.1967

Egr.
Dr. Mario A. Morselli
Manor Woods, Kennedy Drive
South Burlington, Vt., U.S.A.

ns.rif.N.168/r1

Egregio Dottore,

con riferimento alla Sua lettera del 4 u.s., Le confermo che ho inviato direttamente ad Yale il modulo contenente le informazioni richieste.

Con i migliori saluti ed auguri.

Giulio Natta

DR. MARIO MORSELLI

168

Burlington, Vt. 11 marzo 1967

Sig. ra R. Lamma
Politecnico di Milano

Gentilissima Signora,

risponde subito al Suo cortesissimo espresso del 7 c.m.

Io lavorai sotto la direzione dei Proff. Natta e Rigamonti dal marzo 1946 al settembre 1947.
Durante quel periodo mi occupai dei seguenti argomenti:
a) Studio dell'equilibrio della reazione Metanolo- Etere metilico.
b) Idrogenazione selettiva dell'acetilene ad etilene e preparazione dei relativi catalizzatori.
Alla fine di settembre 1947 lasciai l'Istituto per venire negli Stati Uniti.
Per Sua informazione ho scritto recentemente anche al Prof. Rigamonti pregandolo di riempire un modulo uguale a quello inviato al Prof. Natta.

Con infiniti anticipati ringraziamenti, resto a Sua disposizione per qualsiasi altra informazione al riguardo.

Mario A. Morselli

Manor Woods, Kennedy Drive
South Burlington, Vt. USA

ESPRESSO

7.3.1967

ns.rif.N.143/rl

Egr.
Dr.Mario Morselli
Kennedy Drive
So.Burlington, Vermont - U.S.A.

Egregio Dottore,

con riferimento alla Sua gentile lettera del 4 u.s., il Prof.Natta mi incarica di chiederLe di saperci indicare con esattezza il periodo durante il quale ha lavorato presso questo Istituto e l'argomento delle Sue ricerche di quell'epoca. Le sarei grata se potesse rispondermi al più presto dandomi le notizie richieste, in modo che il Prof.Natta possa inviare ad Yale, senza troppo ritardo, il modulo che La riguarda.

I migliori saluti.

R.Lamma (segretaria)

March 8, 1967

Prof.M.Morton, Director
Institute of Polymer Science
The University of Akron,
Akron, Chio 44304 (U.S.A.)

our ref.142/lmv

Dear Professor Morton:

In reply to your letter of March 3, I am glad to inform you that May 23 is convenient for your visit with us.

With kind regards,

Sincerely,

Giulio Natta

Feb.27, 1967

Prof.Maurice Morton, Director
Institute of Polymer Science,
The University of Akron,
Akron, Ohio 44304 (U.S.A.)

our ref.107/lmv

Dear Professor Morton:

This is in reply to your letter of Feb.15, 1967. We will be glad to welcome you at my Institute on May 22 and have a seminar from you on your recent findings in the organo-lithium-initiated polymerizations of dienes.
If convenient to you, your seminar might be fixed for 4 o'clock p.m.

Looking forward to meeting you and discussing topics of mutual interest, I send you kindest personal regards.

Giulio Natta

Professor H. MARK
Polytechnic Institute of Brooklyn
at present in Vienna

Vienna, October 11, 1967

My dear Colleague:

During my present visit to Vienna I have been informed that an International Research Company is being founded. It will be situated in Vienna and its functions will include the commissioning of research and licensing between East and West.

Vienna has been selected as the base for the Company because of its central position, because it is already the site of several international organizations and because from Vienna work on a fully neutral basis is possible.

In the framework of the Company it is intended to establish an Advisory Board of scientists in order to guarantee the Company's scientific work and to ensure that orders received for research are directed to the right places and institutions as quickly as possible.

As you know, international congresses held in recent years have shown that the same standard of research is attained in East and West. There is at present a general tendency in international affairs towards the development of co-operation between East and West, and in the field of orders for research and licensing the time is now favourable for the co-ordination of such efforts from a central position.

The above, my dear Colleague, is a brief outline of what is proposed, and I should be very pleased indeed if you were able to let me know that you would be willing in principle to join the Advisory Board.

I much look forward to hearing from you and would be very ready to provide any further information you may require. In view of the fact that I shall only be in Vienna for a short time, I should be grateful if you would reply to the following address:

1014 W i e n , POB 86. Otherwise kindly let me know at the Polytechnic Institute (333 Jay Street, Brooklyn, New York 11201).

After receiving a reply from you, advising that you would be interested in principle, the Society will brief you in detail about its scope and will make appropriate suggestions regarding the manner of your valued co-operation.

Meanwhile, I remain colli ottimi saluti a Rositta e lei da Mimì e me il suo sempre

Yours very sincerely

devotissimo

(H. Mark)

Professor G. Natta

University Milano

December 5, 1967

638

Professor G. Natta
Direttore dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

You may have already heard that the Polytechnic Institute of Brooklyn is going to join the State University of New York State with the idea that our Institute should become the Engineering Arm of this large state wide organization; you may also have heard that, a few weeks ago, Murray Goodman was appointed Director of our Polymer Research Institute in succession of myself and Dr. Overberger.

As a result of his appointment and of the evidenced scope of our entire educational and research facilities in the framework of the State University, Professor Goodman is beginning to plan a substantial expansion and intensification of our activities in the near future. One step to this goal is a visit to Tokyo and Kyoto in January, 1968 where the Polymer Society of Japan sponsors a Symposium in his honor.

On his way back to the USA he will visit Israel and Europe and is very anxious to renew our contacts with you and report to you on his present work and discuss with you and your associates his plans for the future. He certainly would have written you personally but he is rather busy negotiating his budget and academic activities with the Administration and I thought, therefore, it would be best if I would start the ball rolling and would notify you of his new position and his plans.

If you are interested in a visit, with or without a lecture or Seminar, please write to him at the above address.

Please kindly permit me to enclose a copy of a report which I hope you will find interesting.

With warmest personal regards and all best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:jm

DEPARTMENT OF CHEMISTRY

June 19, 1967

Dr. Giulio Natta - Director
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo da Vinci, 32
Milan, I T A L Y

Dear Professor Natta:

I would like to ask permission to use several of your figures (as per copies herewith) in our review article on Polymer Stereochemistry.

Looking forward to hearing from you and with kindest regards,

Sincerely yours,

Murray Goodman

Murray Goodman

MG-h

encs. (6)

airmail

July 17, 1967

due righe di ringraziamento per le interessanti notizie sulla università e sulla università

Professor G. [illegible]
Direttore dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Giulio,

First of all, I want to thank you and Rosita very much for the very kind and gracious reception which you gave Murray Goodman when he visited you in Milano a few weeks ago.

Then I want to bring you up to date on two important events which took place at our Institute during the last few weeks. You have probably heard that for several years a New York State University is being organized with several campi at several locations--Buffalo, Rochester, Albany, Syracuse, etc. Our Institute will become a member of this large State University and will, therefore, have new and wider scopes of activtiy and expansion. You can imagine that our faculty has wholeheartedly accepted this affiliation and everybody is looking forward to the future developments.

Since Professor Michael Szwarc could not decide to come to us as the next Director of the Institute of Polymer Research, this position has been offered to Murray Goodman, who accepted it with the understanding that it will be, from now on, the Institute of Polymer and Biopolymers Research and that he will have a free hand in adding to our staff five or six young professors. Naturally, we are all very happy about his acceptance and I personally am particularly pleased because I am sure that there will be now a new period of significant and successful teaching and research in Brooklyn and that Murray will not only continue the old tradition but lead his Institute to a new era of leadership in the field.

At the Gordon Conference in New London I met Professor Pino who not only gave a most interesting and stimulating talk but also enlivened the discussions of the other lectures throughout the whole week.

Mimi joins me in sending to you and Rosita our warmest personal regards and very best wishes.

Very sincerely yours,

Herman

H. Mark

HM:gf

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201

July 12, 1967

Professor G. Natta
Direttor dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I received recently Volumes 1 and 2 of your book STEREO-REGULAR POLYMERS AND STEREOSPECIFIC POLYMERIZATIONS which I read with great interest. Please accept my heartiest congratulations on this excellent publication. It certainly is a great contribution to the scientific world.

With warmest personal regards and all best wishes, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:gf

Very personal
Very friendly
Mark

Oct.26, 1967

20133

our ref.560/lmv

Prof.H.Mark
Polytechnic Institute
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

Dear Mark:

Thank you for your letter of October 11 from Vienna concerning the foundation of an International Research Company.

On the whole, I am interested in your enterprise; however, before giving you a definitive answer, I would like to learn further details on the scope of the Company.

Yours very sincerely,

Giulio Natta

Jan.31, 1967

Dr.George Odian,
Dept. of Chemical Engineering,
Columbia University in the
City of New York,
Terrace Building,
New York, N.Y.10027 (U.S.A.)

our ref.58/lmv

Dear doctor Odian:

This is in reply to your letter of Jan.23, 1967. You can certainly come and visit my Institute when you come to Europe this summer. I only would like to know with some advance the definite date for your visit.

Sincerely yours,

G.Natta

April 18, 1967

Dr. George Odian
Columbia University in the
City of New York, Terrace Buildg.
New York, N.Y. 10027

our ref. 247/eg

Dear Doctor Odian,

This is in reply to your letter of April 14 concerning your visit to my Institute.

Both June 21 and 22 are convenient to us. You should only let me know with some advance which date you choose.

Kind regards.

G. Natta

April 17, 1967

Dr. W. C. Murray
Bell Telephone Laboratories, Inc.
Murray Hill, N.J.

Dear Doctor Murray:

The April 1967 program of the New York Academy of Sciences reports that you delivered a lecture on "The Mechanism of Olefin Ozonolysis"

If possible, I would greatly appreciate receiving a reprint of it.

Thank you and kind regards.

G. Natta

April 17, 1967

Professor Giulio Natta
Direttore dell Istituto di
Chimica Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 31
Milano, Italy

Dear Giulio,

As you certainly know, Professor Michael Szwarc has taken over the directorship of the Polymer Research Institute and we all have been very anxious to acquire, together with him, a first-class polymer physicist as a member of our staff. Of course, we have approached Professor P. Corradini and he has, fortunately, accepted.

I understand that Professor Corradini has conferred with you about this question and you have been so kind to encourage him to accept. Please be assured that we here at the Institute will do everything, not only to make life and living conditions for the Corradinis as pleasant as possible but also assist him in building up his future career.

Please accept, as always, my warmest personal regards and very best wishes.

Very sincerely yours,

Colli saluti da Mimi e me
a Rosita e Lei

H. Mark

HM:gf

il tuo devotissimo

Hermann

May 18, 1967

Dear Dr. Natta:

The Corporation of Polytechnic Institute of Brooklyn requests the honor of your presence at its annual dinner on the evening of Wednesday, June 14, at the University Club in Manhattan.

The dinner will be given in honor of Benjamin Adler, President, Royfax; Donald C. Burnham, President, Westinghouse Electric Corporation; Ralph Connor, Chairman, Rohm & Haas Company; Frederick Seitz, President, National Academy of Sciences, and Robert P. Woodward, Professor, Harvard University, upon whom Polytechnic will confer honorary degrees at commencement.

The guests will include leaders in industry, finance, engineering, science and education, and we hope you will honor us by being one of them.

Cordially yours,

Ernest Weber

President

Dr. Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Reception 7:00 p.m.
Dinner 7:30 p.m.

r.s.v.p. - black tie

U.S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
WASHINGTON, D.C. 20234

March 9, 1967

IN REPLY REFER TO: 311.01

Professore G. Natta
Istituto Chimica Industriale
Politecnico of Milano
Milano, Italia

Egregio Signor Professore Natta:

In allegato si trova un esemplare di una relazione recentemente apparsa nel Chemical and Engineering News, la quale mi ha interessato molto. Mi farebbe un gran piacere avere notizie di sviluppi ulteriori relativi alle macchine ivi trattate.

Nella speranza che le possano essere utile, accludo ristampe di articoli che descrivono il nostro lavoro realizzato in relazione al soggetto.

Sinceramente,

Donald E. Roberts

Donald E. Roberts
Polymer Dielectrics Section
Polymers Division

Encl.

RUBBER CHEMISTRY AND TECHNOLOGY

Published by the Division of Rubber Chemistry of the American Chemical Society, Inc.

E. M. BEVILACQUA, *Editor*
UNIROYAL, INC.
RESEARCH CENTER
WAYNE, NEW JERSEY 07470

June 21, 1968

Prof. G. Natta
Instituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Prof. Natta:

It is the custom of the Division of Rubber Chemistry to send authors of papers appearing in RUBBER CHEMISTRY AND TECHNOLOGY, who are not members of the Division, complimentary copies of the issue in which their papers appear.

Enclosed herewith is a copy of the issue in which your paper appeared: "Thermodynamic Examination of the Polymorphic Transition of Trans-1,4-Polybutadiene. I. Theoretical Premises."

I hope that reproduction has been satisfactory.

Yours very truly,

E. M. Bevilacqua

E. M. BEVILACQUA

EMB/lgj

Dec. 18, 1967

Dr. Murray Goodman, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

our ref.648/lmv

Dear doctor Goodman:

I learn from a letter of Prof.Mark that you have been appointed Director of the Polymer Research Institute of the Brooklyn Polytechnic Institute and I heartily congratulate on you.

Prof.Mark also informs me that, on your way back from Japan, you will come to Italy next January. I will be very glad to meet you and discuss problems of mutual interest. On that occasion you might also, if you like so, deliver a lecture on a topic of your choice.

I look forward to hearing details on your visit, and send you kindest regards and best wishes.

Giulio Natta

July 4, 1967

Dr.Murray Goodman,
Dept. of Chemistry,
Polytechnic Institute of Brooklyn
333 Jay street,
Brooklyn, New York 11201 (U.S.A.)

Dear doctor Goodman:

With regard to your letter of June 19, I am glad to give you permission to use some of my figures in your review article on Polymer Stereochemistry.

Obviously, you should also ask permission to the Journals that published said figures.

Kindest personal regards,

Giulio Natta

July 26, 1967

20133

our ref.459/lmv

Prof.H.Mark,
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

Dear Herman:

Thank you very much for all interesting news you have given to me with your letter of July 17. Accept my sincerest congratulations upon the new affiliation and my very best wishes for the future developments of your Institute.

I also wish to thank you for your kind words concerning my book Stereoregular Polymers and Stereospecific Polymerizations.

With warmest regards to you and Mimi also from Rosita.

Very sincerely yours,

G.Natta

(dictated by Prof.Natta
and sent on his absence)

April 20, 1967

Prof. H. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201

our ref. 252/eg

Dear Hermann:

Thank you for your kind letter of April 17 and for the news about the Polymer Research Institute of the Polytechnic Institute of Brooklyn.

I am also glad that Prof. Corradini will be welcomed at that Institute for a one-year work.

Kindest regards to you and Mimi also from Rosita.

Very sincerely yours,

G. Natta

April 20, 1967

Prof.Michael Szwarc, Director
Polymer Research Institute,
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

254

Dear Professor Szwarc:

Prof.H.Mark has informed me that you have taken over the directionship of the Polymer Research Institute of the Polytechnic Institute of Brooklyn.

I heartily congratulate upon you and wish you ever increasing success in your highly appreciated activity in the field of macromolecular chemistry.

Kindest personal regards,

Giulio Natta

May 22, 1967

Prof. E. Weber
Polytechnic Institute of
Brooklyn
Brooklyn, New York

our ref. 323/eg

Dear Professor Weber:

Thank you very much for your letter of May 18 and for inviting me to the annual dinner at the University Club in Manhattan on June 14. However, I regret informing you that it will be impossible for me to come.

Please forward my sincerest congratulations to Mr. Adler, Burham Connor, Seitz and Woodward.

Kindest regards.

G. Natta

5.4.1967

Dr. Donald E. Roberts
Polymer Dielectric Section
Polymers Division
U.S. Department of Commerce
National Bureau of Standards
Washington, D.C. 20234, US.

Vs.rif. 311.01
ns.rif.N.165/rl

Egregio Dottore,

rispondo alla Sua cortese lettera del 9.3 e La ringrazio per gli estratti delle Sue pubblicazioni che già conoscevamo sia direttamente che attraverso le citazioni del libro di Mandelkern. Non eravamo invece a conoscenza del Suo brevetto 3.090.735.

In plico separato Le invio le quattro note che riguardano le ricerche da noi effettuate sulla transizione solido-solido del polibutadiene 1,4 trans.

I migliori saluti.

Giulio Natta

Chim. e Ind 1967 p° 1 e p° ... 852
" " 1966 851
762
763

ricevuti 12.4.67

July 24, 1968

Dr. E.M.Bevilacqua, Editor
Rubber Chem. & Technology
Uniroyal, Inc.,
Research Center,
Wayne, New Jersey 07470 (USA)

Dear doctor Bevilacqua:

I wish to thank you very much, also on behalf of the co-wuthors, for kindly sending us three complimentary copies of Rubber Chemistry and Technology, in which our paper appeared.

Sincerely yours,

Giulio Natta

FAMILY OF MAN AWARDS DINNER
Honoring
HIS EXCELLENCY JEAN MONNET

October 23, 1967

Mr. Dottore Giulio Natta
54 Via Mario Pagano
Milano, Italy

Dear Mr. Natta:

On November 29th, the Society for the Family of Man will hold its annual Awards Dinner honoring Jean Monnet. During the past four years these dinners have honored General Eisenhower, Presidents Kennedy and Johnson and Prime Minister Lester Pearson, and we are again fortunate in having a very distinguished statesman as the recipient of the Family of Man Award. There is no need to recount Jean Monnet's tremendous accomplishments as the principal architect of the European Common Market and as its guiding hand during the sometimes stormy but clearly successful first decade of its existance.

The proceeds from the Dinner will go to the Society for the Family of Man, which effectively performs a wide spectrum of community and youth services within the New York area. During the long, hot summer of 1967, these services, I am certain, contributed substantially to the maintenance of an atmosphere of harmony and progress among the people of New York.

Your personal participation, or that of your firm, in the Dinner will help to continue these very worthwhile activities, while giving recognition to the ideals and accomplishments of a great European statesman.

A reservation form and return envelope are enclosed. We hope to hear from you soon.

Sincerely,

George W. Ball

George W. Ball

Wheelock H. Bingham, Chairman, The Society for the Family of Man • Suite 456, 475 Riverside Drive, New York, N. Y. 10027 • RI 9-1214

Society for the Family of Man

Wheelock H. Bingham
Chairman

January 11, 1967

Dr. Giulio Natta
54 Via Mario Pagano
Milano, Italy

Dear Dr. Natta:

The Society for the Family of Man is a non-sectarian, non-political organization, headquartered in New York City. It is dedicated to the concept that all mankind is one family under God. Its aim is to help create the environment to make this concept a social and political reality.

The Society is contacting each Nobel Prize winner throughout the world to ask for suggestions for candidates for the 1967 Family of Man Awards for Excellence. These awards were started in 1963. They are now given to six people each year from all over the globe, who have performed excellently in the fields of art, science, communications, education, world peace and human relations. We invite them to New York to accept the bronze Family of Man medallion and a $5,000 grant.

The Society strives to encourage and strengthen the work of these individuals toward the promotion of the ideal of excellence and the kinship of all mankind.

We enclose a brochure and a 1966 program which should give you further information. We seek as many recommendations as possible from you in each of the fields listed above. The candidates' names should be submitted regardless of race, sex or present fame. Each recommendation should be accompanied by a brief statement of the reason for your selection.

We would deeply appreciate your participation. Time is of the essence, and so we earnestly request your most immediate attention.

Very truly yours,

Wheelock H. Bingham

Wheelock H. Bingham

Suite 456, 475 Riverside Drive, New York, N. Y. 10027

Am

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF RESEARCH AND DEVELOPMENT
WASHINGTON, D.C. 20310

CRDPES

4 May 1967

11/5/67

dalla Zerbi: di cui ho ricevuto anche ringraziare anche a nome di Natta

Professor Giulio Natta
Istituto de Chimica del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

Thank you very much for the time you gave to Dr. Heaston and myself during our visit of 18 April. It was indeed a pleasure to meet you.

Please convey my thanks to Dr. Zerbi for giving us such a clear picture of your work there. I am only sorry that I was not able to spend more time with you, but I very much appreciate Dr. Zerbi giving additional time to Dr. Heaston on the nineteenth.

Should you or Dr. Zerbi be in the vicinity of Washington on your next trip to the United States, it would be a real pleasure for us to have you visit our office.

Thank you again for your courteous hospitality.

Sincerely yours,

Thomas E. Sullivan

THOMAS E. SULLIVAN
Chief, Materials Sciences
and Technology Branch
Physical and Engineering
Sciences Division

The United Educators, Inc.

TANGLEY OAKS EDUCATIONAL CENTER • LAKE BLUFF, ILLINOIS 60044 • TEL. CEDAR 4-3700 • CABLE ADDRESS AMEDEN

February 14, 1967

Professor Giulio Natta
Via Mario Pagano 54
Milano, Italy

Dear Dr. Natta:

The 1967 edition of the American Educator Encyclopedia is now complete and we are sending a set to you. We hope that you will enjoy using this fine set of books.

May we again extend to you our thanks for your contribution to the American Educator.

Very truly yours,

THE UNITED EDUCATORS, INC.

Everett Edgar Sentman
Vice President and
Editor in Chief

EES:lm

PRINCETON UNIVERSITY
DEPARTMENT OF CHEMISTRY
PRINCETON, NEW JERSEY 08540

Frick Chemical Laboratory

Preprints urgente

June 15, 1967

Professor Giulio Natta
Ist. Chim. Ind.
Politecnico
Milan, Italy

Dear Professor Natta:

Thank you very much for your letter of June 7.

I am very interested in the possibility that Dr. Locati might work as my Research Associate for a time. I am fairly sure that I can offer him a position in my laboratories at a salary of $7200 per year starting February 1, 1968.

Could you please have Dr. Locati fill out the enclosed information sheet?

Is Dr. Locati able to speak and write English reasonably well?

Very best wishes and sincere regards.

Very truly yours,

Arthur Tobolsky

Arthur V. Tobolsky
Professor of Chemistry

AVT:mm

P.S. I would appreciate an early answer since I will be on vacation during July.

AVT

Prof M. L. Williams

THE UNIVERSITY OF UTAH

SALT LAKE CITY 84112

COLLEGE OF ENGINEERING
1073 MERRILL ENGINEERING BUILDING

16 June 1967

Professor Guilio Natta
Instituto de Chimica del Politechnico
de Milano
Piazza Leonardo da Vinci
Milano, ITALIA

Dear Professor Natta:

Thank you for your letter of 12 June. Dr. Williams is out of town presently, so may I talk this opportunity to answer your question regarding procedures for applying to the NATO Symposium.

I believe we have already sent you the announcement of this program. On the page entitled "Registration Information" you will see the information required when sending in your application, i.e. name, date of birth, etc. We do have some funds available for travel expenses and/or subsistence, if you are accepted and cannot obtain this support elsewhere.

Please advise us by return mail if you wish to submit your application, and the amount of financial support you need.

Sincerely yours,

Sally Richards

SALLY A. RICHARDS
Secretary to
M. L. Williams
Professor of Engineering

sr

UNIVERSITY OF UTAH
SALT LAKE CITY, UTAH 84112

COLLEGE OF ENGINEERING
1001 MERRILL ENGINEERING BUILDING

19 May 1967

Professor Guilio Natta
Dr. Giuseppe Zerbi
Instituto de ~~Chimica~~ del Politechnico
de Milano
Piazza Leonardo da Vinci
Milan, ITALY

Subject: NATO Advanced Study Institute Summer Course in "Fundamental Mechanisms and Engineering Analysis for Viscoelastic Materials," to be held in Stresa (Lake Maggiore), Italy, August 21 - September 1, 1967

Dear Professor Natta and Dr. Zerbi:

Early this week I received a communication from a friend of mine Dr. Thomas E. Sullivan, who recently visited you in Milan. It was fortuitous that I had informed him of my intention of holding a NATO Advanced Study Institute at Lake Maggiore this summer.

At Dr. Sullivan's suggestion, I am enclosing a notice of this meeting for your information along with my personal invitation to attend if you can find time in your schedule to do so. I would like very much to have participation from Italian colleagues, but I must frankly admit I am not too well acquainted with the appropriate areas of your technical community. The main Italian contribution right now consists of two engineers from Bombrini Parodi del Fino in Rome with whom I have been acquainted from my previous visit to your country. I hope this meeting will meet with your interest.

Sincerely yours,

M. L. WILLIAMS
Professor of Engineering

MLW:sr

cc: Dr. Thomas E. Sullivan

March 3, 1967

Mr.Wheelock H.Bingham, Chairman
Society for the Family of Man,
Suite 456,
475 Riverside Drive,
New York, N.Y.10027 (U.S.A.)

Dear Mr.Bingham:

This is in reply to your letter of Jan.11, 1967. I wish to congratulate upon you for your excellent initiative. At the moment, however, I do not know a candidate for your awards. If I get knowledge of someone worthy of it, I will inform you.

Kindest personal regards,

Giulio Natta

Ann

June 23, 1967

Prof.Arthur V.Tobolsky,
Dept. of Chemistry
Frick Chemical Laboratory,
Princeton University
Princeton, New Jersey 08540 (U.S.A

392

Dear professor Tobolsky:

Prof.Natta, presently out of town, informed me of your very kind letter of June 15, and asked me to answer you.

I am very glad to accept your kind offer for the time and salary you propose.
When convenient to you, please let me know which type of research I should develop at your Institute.
Moreover, I inform you that I speak and write English fairly well.

With my kindest regards and best wishes for a nice holiday,

Yours sincerely,

Giancarlo Locati

Encl/

June 7, 1967

Prof.Arthur V.Tobolsky,
Frick Chemical Laboratory,
Princeton University,
Princeton, New Jersey (U.S.A.)

our ref.355/lmv

Dear Professor Tobolsky:

Dr.Giancarlo LOCATI of the Italian National Council for Research, who works at this Institute of Industrial Chemistry of the Polytechnic of Milan, would like to work at your Institute for about one year - possibly during next Academic year.

His field of interest concerns the mechanical properties of polymers.

I do not know for certain which works you will develop in this field. However, if you have scheduled some research that dr.Locati may develop, and if you think it possible to accept him, I would greatly appreciate your informing me, also concerning the possibility of granting him a salary.

Herewith enclosed, I send you a short curriculum of Dr.Locati with an outline of the work he is being developing at my Institute, under the guide of Prof.Mario Pegoraro.

Thanking you very much for your kind interest, I send you my best regards.

Giulio Natta

Curriculum of Dr.Locati

Dr.Giancarlo LOCATI was born at Sesto S.Giovanni (Milano) on Nov.22, 1941.

He graduated in Physics at the University of Milan in July 1965, presenting a graduation thesis entitled: "Study of the Antiferromagnetic alloy $FeSn_2$ by the Mössbauer Effect".

Since November 1965, he has developed research works in the field of the mechanical properties of polymers at the Industrial Chemistry Dept. of the Polytechnic Institute of Milan.

In particular, he co-operated in adjusting an apparatus for measuring elastic constants in resonance at medium frequency, and in realizing an original method for measuring said properties, which will be the object of a paper for publication in Die Makromolekulare Chemie.

By this method he is studying the mechanical-dynamic properties of some new polymers and copolymers of great interest.

Moreover, he cooperated in the design and realization of a torsional pendulum and made relaxation measurements on polyvinylchloride.

Ann

June 22, 1967

Prof. M.L. Williams
The University of Utah
Salt Lake City 84112

our ref. 385/eg

Dear Professor Williams:

Further to my letter of June 12 and to your reply of June 16, I wish to inform you that my co-worker, Prof. M. Pegoraro, assistant professor in Industrial Chemistry, and teaching Applied Chemistry at this Institute, will send you his application to the NATO Summer Course "Fundamental Mechanisms and Engineering Analysis for Viscoelastic Materials" according to what indicated in your announcement. Upon request, I certify you that no financial support is available for Prof. Pegoraro: therefore, I ask you that his living expenses at Stresa be possibly covered by NATO funds.

Looking forward to hearing from you on this matter, I send you kindest regards.

G. Natta

June 12, 1967

Prof.M.L.Williams,
College of Engineering
University of Utah,
1001 Merrill Engineering Building
Salt Lake City, Utah 84112 (U.S.A

our ref.336/lmv

Dear doctor Williams:

Thank you for your letter of May 19. I wish to congratulate you on your enterprise and greatly regret that I cannot participate in the meeting personally.

However, some co-workers of mine will be very glad to come: in particular, Mario PEGORARO, an assistant professor at this Institute, teaching Applied Chemistry, who is especially interested in the topic.

I know that Prof.Danusso has already written to you concerning two of his co-workers (Drs.A.Crugnola and L.Szilàgyi).

Please, let me know the formalities required for participation and whether NATO grants even partial financial support.

Looking forward to hearing from you on these matters, I send kindest personal regards.

Giulio Natta

Milano, June 1, 1967

Prof. M.L.WILLIAMS
College of Engineering
University of Utah
SALT LAKE CITY, UTAH 84112 U.S.A.

Dear Professor Williams:

Just yesterday I received notification from Prof. Natta of your planned NATO summer course on Viscoelastic Materials to be held at Stresa Italy. I am very interested in having Drs. A.M.Crugnola and L.Szilagyi, two of my collaborators in this area of polymer research attend the program. I am impressed with the completeness of the curriculum you are presenting and am sure that the Institute would profit from their participation. They are both here under fellowships, however, and the Institutes limited budget for attendance makes difficult reimbursing their living expenses. I would appreciate any assistance in this regard which might be available to them.

With personal regard,

sincerely yours

All/

USA

1968

American Chemical Society
B. R. STANERSON *Executive Secretary*
1155 SIXTEENTH STREET NW WASHINGTON DC 20036 REpublic 7-3337 ac 202

Membership Activities Division
R. L. SILBER, *Director*
Membership Office
E. M. KLINEFELTER, *Manager*

December 5, 1968

Mr. Giuseppe Matteo Giongo
Instituto di Chimica
Industriale del Politecnico
Piazza L.da Vinci 32
20133 Milano (Italy)

Dear Mr. Giongo:

We are indeed pleased to learn from Dr. Giulio Natta that you may be interested in becoming a member of the American Chemical Society.

Enclosed is a membership application form; Bylaws defining eligibility are found on this form. If you are eligible, we hope you will carefully and completely fill out the form and return it for prompt consideration by the Admissions Committee.

Also enclosed is a copy of "Your Move". We believe this leaflet will provide information about the activities and programs of the Society which should be of interest to you.

We look forward to receiving your completed application and serving you in the future. In the meantime, if you have any questions please let us have the opportunity of answering them for you.

Sincerely,

Earl Klinefelter

EK:dl
Enclosures
cc: Dr. Giulio Natta

Thanks.

Am (Cleary)
n/
2/8/2/68

17 Barnum St
Taunton, Mass
02780

Feb 16, 1968

Dear Giulio

I collect the autographs of famous and important people. I have many signatures including several Pulitzer Prize and Academy Award winners.

I am now trying to collect the autographs of the Nobel Prize winners. I have collected the signatures of about 85 Nobel Prize winners.

I would be very honored if you would sign the enclosed card.

Thank you
Jack Cleary

Director

Electric Ave.
Norwalk
Connecticut USA

8 · XI · 67

Dear Prof. Natta

The enclosed study on Galileo is being sent to you at the requests of our mutual friends the Ladislao Reti's. Alex worked in our library last summer.

It is hoped you will find something of interest in the Galileo study

Sincerely

Mi fa piacere dell'interessante libro — Ben Dibner

Mr B. Dibner

"I never miss a copy of the M. T. Journal." — William Faulkner
"Put me down ditto to the above statement." — President Lyndon B. Johnson

$1.00 a copy

$3.00 a subscription

CYRIL CLEMENS
EDITOR
MARK TWAIN JOURNAL
Established 1936
KIRKWOOD, MO. 63122

impressione

14 July 1968

Dear Professor Natta

In recognition of your outstanding contribution to Science you have been unanimously elected Knight of Mark Twain.

All Good Steam

Cyril Clemens

"Cyril Clemens, a worthy kinsman of Mark Twain who brought light into all our lives."
John F. Kennedy

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY · DAVIS · IRVINE · LOS ANGELES · RIVERSIDE · SAN DIEGO · SAN FRANCISCO SANTA BARBARA · SANTA CRUZ

A Tribute to the People of California

DEPARTMENT OF CHEMISTRY
LOS ANGELES, CALIFORNIA 90024

January 10, 1968

Professor Dr. Guilio Natta
Institute di Chimica Industriale del Politechnico
Piazza Leanardo da Vinci
Milano, Italy

Dear Professor Natta:

Last year Nobel Laureate Willard Libby of U. C. L. A. nominated Professor S. Winstein of our Chemistry Department for the 1967 Nobel Prize in Chemistry. On invitation of the Nobel Prize Committee, I also submitted a nomination. Enclosed are copies of the two nomination letters, as well as a document entitled "Contributions to Chemistry by S. Winstein", which I prepared in support of my nomination. This year, Willard Libby is renewing his nomination and enclosed are copies of his letter of nomination, emphasizing Winstein's recent contributions, and a bibliographical supplement.

In my opinion, the case for Winstein is very strong, and 1968 could well be his year for the Nobel Prize in Chemistry. His work on neighboring groups and reaction mechanisms have profoundly affected every branch of the science from industrial applications to molecular biology, and yet no one in physical organic chemistry has yet been recognized by the Nobel Prize Chemistry Committee.

I know that your opinion is of great value to the Nobel Committee for Chemistry. Therefore, I wonder if you would care to either nominate or support our nomination of Winstein by writing the Nobel Committee for Chemistry, Sturegatan 14, Stockholm Ö, Sweden, before the end of January, 1968. Last year you wrote the Nobel Committee on behalf of Saul Winstein and I hope you will be willing to do so again this year.

Cordially yours,

D. J. Cram

D. J. Cram
Professor of Chemistry

DJC/kda

Enclosures

WOODS HOLE OCEANOGRAPHIC INSTITUTION
WOODS HOLE, MASSACHUSETTS 02543
AREA CODE 617-548-1400

May 24, 1968

Dr. Par G. Natta
Instituto di Chimica Industriale
Politecnico di Milano
Milan
Italy

Dear Dr. Natta:

Enclosed you will find an article by Dr. Matheja and me on the interaction of metal ions with organic molecules in biochemical systems. We feel that this kind of work may be of some interest to you, and this is the reason why we send you this copy.

May I also ask you the favor of sending me some of your recent work concerned with "Catalyse stéréospécifique?" Thank you very much for your co-operation.

Kind personal regards,

Sincerely yours,

E.T. Degens

Egon T. Degens
Senior Scientist

ETD/lrl

Enclosure

inviati AF 839 - 840 -
814 - 864 - 958

R. M. Ancell
11721 Nambe, NE
Albuquerque, N.M.

ALBUQUERQUE, N. MEX.
DEC 3 AM
1968

13¢ AIR MAIL
AIRPORT MAIL
JOHN F. KENNEDY
U·S·A

Dr. Giulio Natta
54 Via Mario Pagano
Milan, Italy

AÉROGRAMME • PAR AVION

FIRST FOLD

SECOND FOLD

11721 Nambe, NE
Albuquerque, N.M.
December 20, 1968

Dr. Giulio Natta
54 Via Mario Pagano
Milan, Italy

Dear Dr. Natta,

Since the early 1950's, I have been an ardent collector of autographs of noted persons. I sincerely believe that my collection certainly couldn't be complete without your autograph, and I respectfully ask if you would be so kind as to send me an autographed photograph of yourself.

Thank you very much for taking the time to read my letter. Let me assure you, Dr. Natta, that your autograph will be a most valuable addition to my collection.

Most respectfully,

Robert M. Ancell, Jr.

ricevuta 14/1/69

James Havel
809 Crestline Drive
Lawrence, Kansas
U.S.A.

LAWRENCE, KS

13¢ AIR MAIL
JOHN F. KENNEDY
U·S·A

The Honorable
Dr. Giulio Natta
Polytechnic Institute
Piazza Leonardo Da Vinci
Milan, Italy

AÉROGRAMME • PAR AVION

~~654204~~

DO NOT USE

809 Crestline Drive
Lawrence, Kansas
U.S.A.
July 3, 1968

m wato foto +
Nobel (682)
2. 9. 68

Dear Dr. Natta,

I am 17 years old and I collect autographs of famous men. May I please have the honor of adding your actual, personal signature to my collection, along with your autographed picture? I realize how busy you are, so I would be extremely grateful to you for a reply.

Thank you very much for your time and your kindness in answering my request.

Sincerely,

James Havel

P.S. If possible, could you also send me some information on the work for which you won the Nobel Prize? I would greatly appreciate it.

682
mi pare

Per Nuova valutazione e preparare risposta

217 Westview Drive
Alma, Michigan 48801
May 20, 1968

Dear Prof. Giulio Natta;

Enclosed, please find some samples of fibrillated polypropylene material. I am forwarding them to you for your critical evaluation and to obtain your authoratative opinion on the validity of this new area as a potential business venture.

A personal friend of mine, who has graduated with a degree in Chemical Engineering about 8 years ago, has developed some novel techniques for fibrillating polypropylene.

A literature as well as a market search has revealed that no comparable product exists in the U.S.A., Western Europe or Japan.

In view of the racial and social unrest which is afflicting the United States both my friend and I would consider leaving the United States to go to Western Europe to establish manufacturing as well as research facilities for fibrillated polypropylene to be used for carpets, draperies, upholstery materials, etc.

Equipped with this exciting technical knowledge we envision the formation of a corporation for the advancement of these products. Financial support from one or two individuals as co-partners in this corporation would be our first step.

I would greatly appreciate and value your comments on this matter. Thank you in advance.

Very cordially yours,

J. DiPietro

Dr. Joseph DiPietro

Prof. Natta
Prof. Giannini
visionare

Borg-Warner Corporation
ROY C. INGERSOLL RESEARCH CENTER
WOLF AND ALGONQUIN ROADS, DES PLAINES, ILLINOIS 60018, PHONE 312/827-3131

July 26, 1968

Professor G. Natta, Director
Institute of Industrial Chemistry
Milan Polytechnical Institute
Milan, Italy

Dear Prof. Natta:

I have taken the liberty of sending you a copy of a recent chapter that I wrote for a series of books entitled,"The Stereochemistry of Macromolecules". In the chapter I have attempted a critical appraisal of the wealth of experimental data relating to stereospecifics of alpha-olefins.

In view of the outstanding contributions you and your colleagues have made, it seemed appropriate that I send you a copy. I sincerely hope that you find it of interest.

Last year I was scheduled to lecture at a symposium at Roermond, Holland, but due to family illness I had to cancel at the last minute. I had very much been looking forward to meeting with Dr. Pasquon, who was scheduled on the same program. Hopefully, one day there will be a similar opportunity; possibly I might even be able to visit your laboratories. Until then, my sincere best wishes for the future.

Sincerely,

D F Hoeg

D. F. Hoeg
Associate Director

DFH:ec
Encl.

= ringraziare per il capitolo che leggerò con interesse
— auguri
Tedeschi

Sept. 4, 1968

Mr. Cyril Clemens, Editor
Mark Twain Journal
Kirkwood, MO. 63122 (USA)

Dear Mr. Clemens:

Accept you apologies for my delay in answering your kind letter of July 14.

I feel much honored at having been elected a Knight of Mark Twain, and I thank you very much indeed.

Yours truly,

Giulio Natta

Jan. 29, 1968

Prof. D. J. Cram,
University of California,
Dept. of Chemistry,
Los Angeles, California 90024 (USA)

our ref. 35/lmv

Dear Professor Cram:

In reply to your letter of Jan. 10, 1968, I wish to inform you that I have written the Nobel Committee on behalf of Prof. Winstein as candidate for the 1968 Nobel Prize in Chemistry.

With kindest regards,

Giulio Natta

292

June 7, 1968

Dr. Egon T. Degens,
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts 02543 (USA

Dear doctor Degens:

Thank you for kindly sending me your article on the interaction of metal ions with organic molecules in biochemical systems.
I will read it with much interest.

Under separate cover, I send you a few reprints on the stereospecific catalysis, as required.

Kindest regards,

Giulio Natta

Jan.11, 1968

Mr.D. Dibner, Director
Burndy Library,
Electra Ave.,
Norwalk, Connecticut (USA)

Dear Mr. Dibner:

Thank you very much for kindly sending me the Galileo study, which I found of much interest.

It was also kind of the Retis to think of me.

Very sincerely yours,

Giulio Natta

31.5.1968

Dr. Joseph DIPietro
217 Westview Drive
Alma, Michigan 48801, USA

ns.rif.N. 281/r1

Caro Di Pietro,

ho ricevuto la sua lettera del 20 u.s. ed i campioni che Lei mi ha inviato.

Per quanto riguarda la vostra intenzione di produrre in Europa tale materiale, credo che oonvenga che prendiate contatto con persone dell'industria che si sono occupate del problema. Vi consiglierei di comunicare con l'Ing. Enzo di Giulio, Direttore del Servizio Sviluppo della Società Polymer, Largo Donegani 1-2 , Milano , che già produce fibre di polipropilene e ne cura l'applicazione. Ho parlato personalmente con l'ingegnere che mi ha detto che il problema è già stato molto studiato e risolto da numerose Ditte che hanno preso anche numerosi brevetti sull'argomento. Nel caso che abbiate preso dei brevetti sul vostro procedimento, La pregherei di mandarci la loro descrizione in modo da poterne valutare l'utilità.

In attesa di Sue ulteriori notizie, Le invio cordiali saluti.

Giulio Natta

Arm

M. W. Espy, Jr.,
Box 24,
Gould Rd, Alabama 36345
UNITED STATES OF AMERICA
June 27th, 1980.

Dr. Giulio Natta
Centro di Studio per la Chimica Organica,
Politecnico di Milano,
Piazza Leonardo da Vinci 32,
Milan, Italy.

Dear Dr. Natta:

I am a collector of the autographs of celebrated and distinguished people from all walks of life.

I would like very much to have yours for the section of my collection devoted to the signatures of the winners of the Nobel Prize, and shall certainly appreciate it if you will kindly sign the enclosed small card and return it to me to be placed in my album.

If you have any small pic, I shall also appreciate it if personally inscribed and autographed photograph of you in addition to the card. If you do not have a picture available, then the card will be sufficient.

I deeply regret that I do not have any of the postage stamps of Italy to send to you for your reply, but I still hope that you will be kind enough to grant my request. As I do not have any of your stamps to send, I am enclosing one of our recently issued stamps celebrating the 150th Anniversary of Illinois' Statehood. Even though you may not collect stamps yourself, perhaps you have a friend who does who would like to have this one for their collection.

Thanking you, in advance, for your consideration of my request, and with my esteem and best wishes, I remain,

Most respectfully yours,

M. W. Espy, Jr.

M. W. Espy, Jr.,
Headland, Alabama 36345
UNITED STATES OF AMERICA

Oct. 7, 1968

Dr. D. F. Hoeg, Ass. Director
Borg-Warner Corporation
Roy C. Ingersoll Research Center
Wolf & Algonquin Roads,
Des Plaines, Illinois 60018 (US.

our ref. 372/lmv

Dear doctor Hoeg:

Thank you for kindly sending me a copy of your chapter, which I will be interested to read.

I shall be glad to meet you if the opportunity arises for you to come to Italy.

Best regards,

Giulio Natta

Box 77
Stuarts Draft, Va.
24477

Prof. Giulio Natta
Milano, Italy

Sir:

Would you please autograph the three enclosed covers and return them to me in the envelope provided. These are for my collections honoring the Nobel Winners.

Your cooperation will be most deeply appreciated.

Yours truly
Curtis Siddons Jr.

23/9/68

INDUSTRIAL

9 STRAIGHT YEARS OF ADVERTISING GAINS. REQUEST CIRCULATION: 80,000

INDUSTRIAL RESEARCH INC.

January 19, 1968

Dr. Giulio Natta
Via Mario Pagono 54
Milan, Italy

Dear Dr. Natta:

I am pleased to send you a copy of the January issue of Industrial Research containing your article on "Polymers." Five additional copies are being mailed for your personal use.

I thought you did an exceptional job of covering a difficult subject. The editorial staff joins me in congratulating you on the article.

The 80,000 scientists, engineers, and technical administrators who receive Industrial Research should find the article interesting and helpful in their work.

We are pleased to send you the enclosed honorarium in the amount of $100.

We greatly appreciate your wonderful cooperation and hope you will consider I·R for any future articles you may write of interest to the $25-billion research industry.

Sincerely,

INDUSTRIAL RESEARCH

P. Michael Sinclair

P. Michael Sinclair
technical editor

pak

enclosures

EXECUTIVE OFFICES BEVERLY SHORES, IND. 46301 219/872-8685

W. H. FREEMAN AND COMPANY PUBLISHERS

660 MARKET STREET, SAN FRANCISCO 4, CALIFORNIA • TELEPHONE: YUKON 6-5115

May 1968

Professor Giulio Natta
Institute of Industrial Chemistey
Politecnico di Milano
Milan, Italy

Dear Author:

As a means of extending the educational use of material from Scientific American, we are undertaking to publish special collections of articles in book form. A Scientific American article of which you are author or co-author is included in the book which accompanies this letter.

You will be pleased to know that a royalty of 1/2¢ for each article included in the book will be paid, on a yearly basis, on all copies of the book sold.

Sincerely yours,

William Kaufmann

William Kaufmann

WK:ibp
Enclosure

W. H. FREEMAN AND COMPANY PUBLISHERS

660 MARKET STREET, SAN FRANCISCO 4, CALIFORNIA • TELEPHONE: YUKON 6-5115

March 20, 1968

Professor Giulio Natta
Institute of Industrial Chemistry
Politecnico di Milano
Italy

Dear Author:

We are pleased to inform you that your Scientific American article has recently been added to our Offprint series. Enclosed herewith is an Offprint of the article, as well as a brochure which describes the series and lists most of the other articles now available.

The response to this Offprint service has been most enthusiastic, particularly from high school and college teachers who have adopted them for classroom use. We hope your article will also have wide circulation in this new form. A royalty of 1/2¢ for each copy of each article sold will be paid on a yearly basis.

Sincerely yours,

William Kaufmann

William Kaufmann

WK:ibp
Enclosures

PRECISELY CONSTRUCTED POLYMERS

by GIULIO NATTA

REPRINTED FROM
SCIENTIFIC AMERICAN
AUGUST 1961
VOL. 205, NO. 2 PP. 33-41

PUBLISHED BY W. H. FREEMAN AND COMPANY 660 MARKET STREET, SAN FRANCISCO, CALIFORNIA 94104

Established 1845 SCIENTIFIC AMERICAN August 1961 Volume 205 Number 2

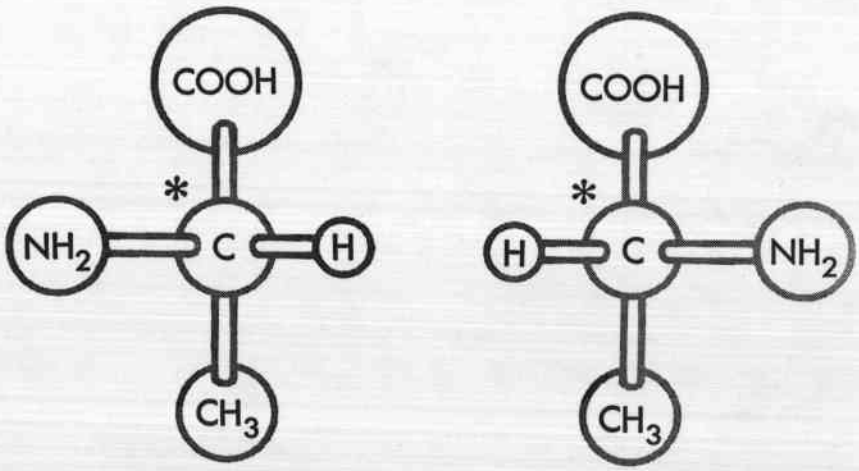
Precisely Constructed Polymers

In the chainlike giant molecules made by man, the units in the chain are generally oriented at random. Now these units can be oriented in regular sequence, giving rise to polymers with useful new properties

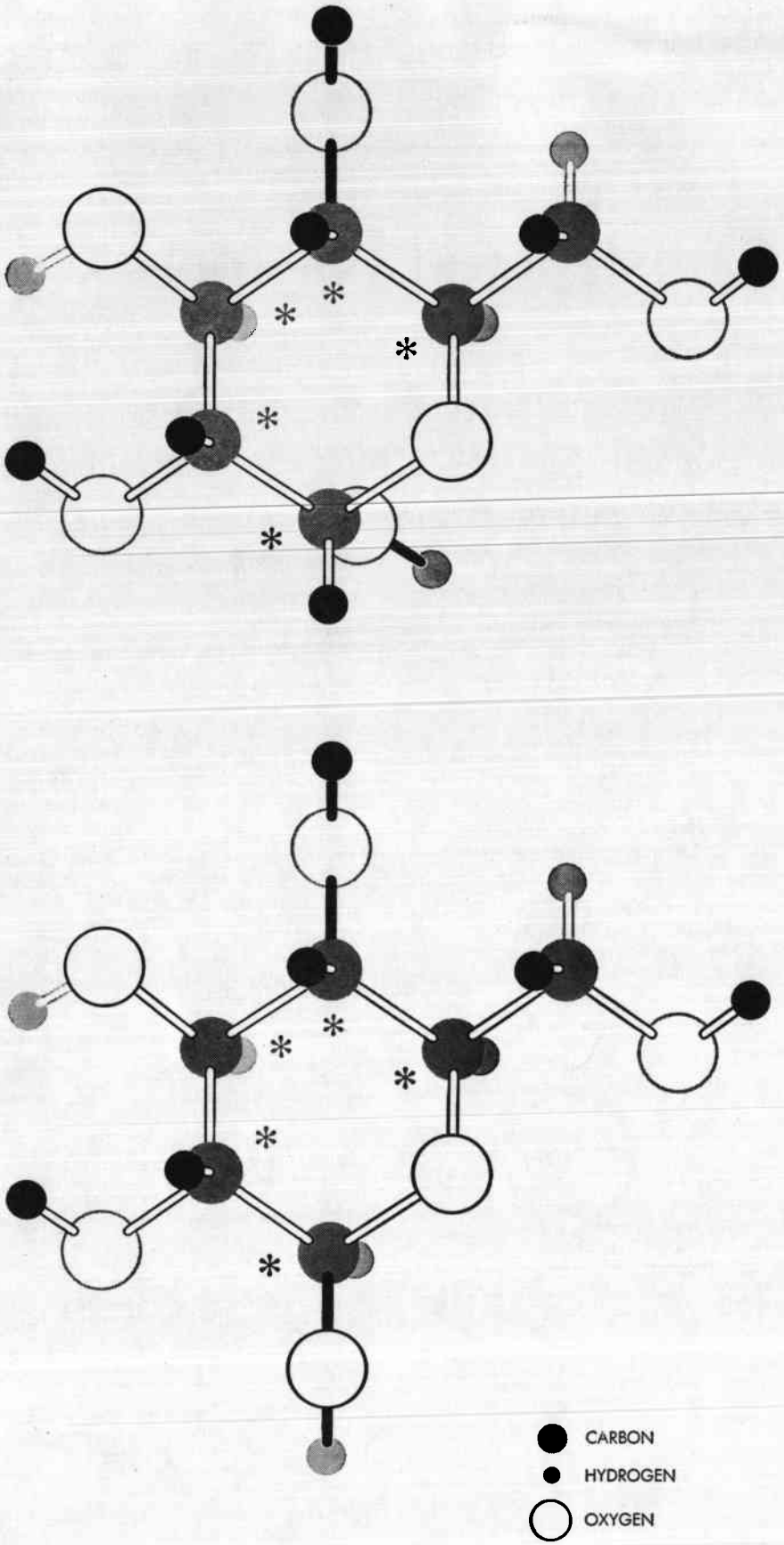
by Giulio Natta

It is often said in the chemical industry that 10 years are required to carry a new product from the test tube to tank-car production. Seven years have now passed since our laboratory in the Politecnico di Milano discovered "stereospecific" catalytic processes for creating "stereoregular" polymers from simple asymmetric hydrocarbon molecules such as those of propylene. The term "stereospecific" signifies that the catalysts are able to link the simple structural units of the polymer—the asymmetric monomers—into precisely ordered three-dimensional structures rather than into structures assembled more or less at random. The precise ordering of structure yields polymers with new and useful physical properties. The new stereoregular polypropylene polymers produced by our methods, and by similar methods successfully developed by others, have been in large-scale production in the U.S. since early this year, following the completion last year of three major plants. The polymers have been commercially available in Italy since 1957. Only last year our laboratory was successful in carrying stereospecific polymerization methods another step forward, suggesting that still-new varieties of stereoregular polymers may achieve practical importance before too many years have passed.

Our recent work has led to the synthesis of polymers that, when placed in solution, have the property of rotating the plane of polarization of a beam of plane-polarized light. They are said, therefore, to be optically active. It was Louis Pasteur who discovered, about 1850, that tartaric acid comes in two isomeric forms, one able to rotate polarized light to the right, the other able to rotate it to the left. A mixture of the two forms in equal amounts is called a racemic mixture. Since Pasteur's time it has been shown that compounds with optical activity are widely used in nature as the monomers of the polymeric constituents of living matter, for example proteins, cellulose and starch. To display optical activity an organic molecule must contain at least one asymmetric carbon atom, meaning a carbon linked to a different kind of atom (or group of atoms) through each of its four valence bonds [*see illustration below*]. For reasons difficult to explain (and perhaps not yet fully explained) the electron



OPTICAL ISOMERS OF ALANINE, one of the 20-odd amino acids that link up to form proteins, illustrate what is meant by an "asymmetric" carbon atom. The central carbon is asymmetric because it has attached to each of its four chemical bonds a different kind of atom or group of atoms. When in solution one configuration, called L(—)-alanine (*left*), rotates plane-polarized light to the left; its mirror image, D(+)-alanine (*right*), rotates polarized light to the right. Natural proteins are all built from L(—)-amino acids.



OPTICAL ISOMERS OF GLUCOPYRANOSE, a natural sugar, each contain five asymmetric carbon atoms (*starred*). Plants make chiefly *alpha*-D(+)-glucopyranose (*top*) and *beta*-D(+)-glucopyranose (*bottom*), which differ only at one carbon (*dark star*). The former polymerizes to form starch, latter to form cellulose (*see illustrations on opposite page*).

cloud around an asymmetric atom—which need not be carbon—causes polarized light to rotate.

A compound containing one asymmetric carbon atom can exist in two isomeric forms, called enantiomers; one is the mirror image of the other, as the right hand is of the left. An optically active compound is assigned to the dextro (D) or levo (L) series according to the position of its asymmetric carbon atom (or atoms) with respect to that in certain reference compounds. This classification is independent of the way the compound in question actually rotates polarized light. If the rotation is to the right, the compound is labeled (+); if to the left, (−).

For more than a century chemists have sought methods of synthesizing one particular isomer in preference to its optical twin. Ordinary methods of synthesis produce all possible optical isomers in equal abundance. One way to obtain an excess of a particular isomer is to employ optically active starting materials. Chemists have made only negligible progress, however, in achieving an "absolute asymmetric synthesis"—one that employs unselected starting materials. The idea that irradiation of the reactants with polarized light might favor one isomeric product over another has been tested without success.

No one has been able to explain why all natural proteins should be built up from L-series amino acids. Presumably the exactly equivalent D series would do just as well. A giant molecule containing a random mixture of L and D types, however, would lack the distinctive physical properties of normal proteins. It is the ordered repetition of molecules sharing a common symmetry that endows a giant molecule with crystalline properties. By "crystalline" is meant the ability of a molecule to pack together with others in orderly array. Crystallinity endows a polymer with strength and rigidity. In contrast, a polymer lacking an ordered structure is generally amorphous.

Although two enantiomers may have almost identical physical properties, the polymers formed from them may differ greatly. A remarkable example of this is found in starch and cellulose, which are made from two D-series sugars that differ in only one isomeric detail. Starch is a chainlike polymer made from *alpha*-D(+)-glucose; cellulose is a comparable chain made from *beta*-D(+)-glucose [*see illustrations at left and on opposite page*]. The slight differences between the two sugars give rise to different types

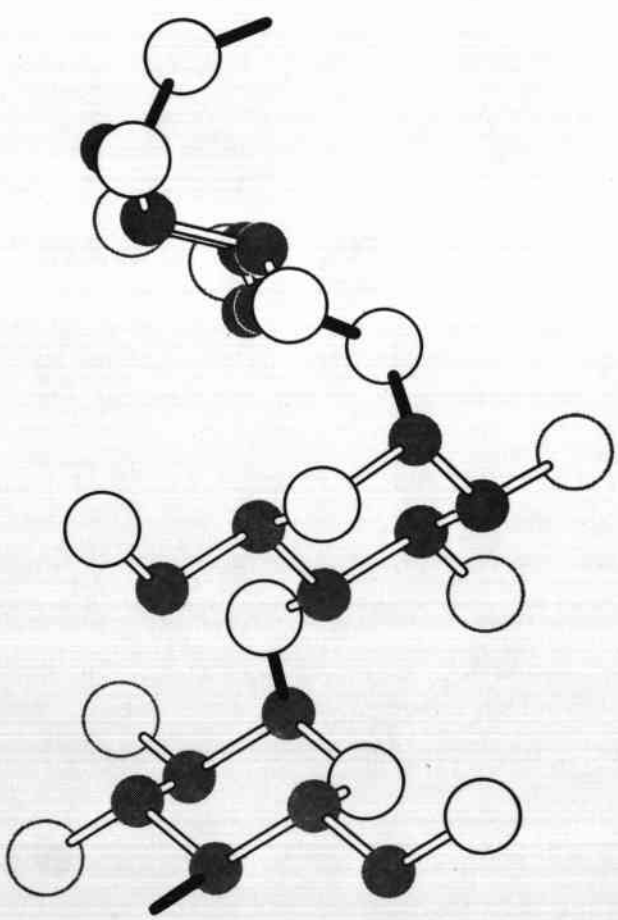
of chain and thus to profound differences in their polymers: starch can be digested by man and animals, cellulose cannot. It is apparent, therefore, that the ability to synthesize giant molecules from optically active organic compounds—and also to decompose them—is an important characteristic of living organisms.

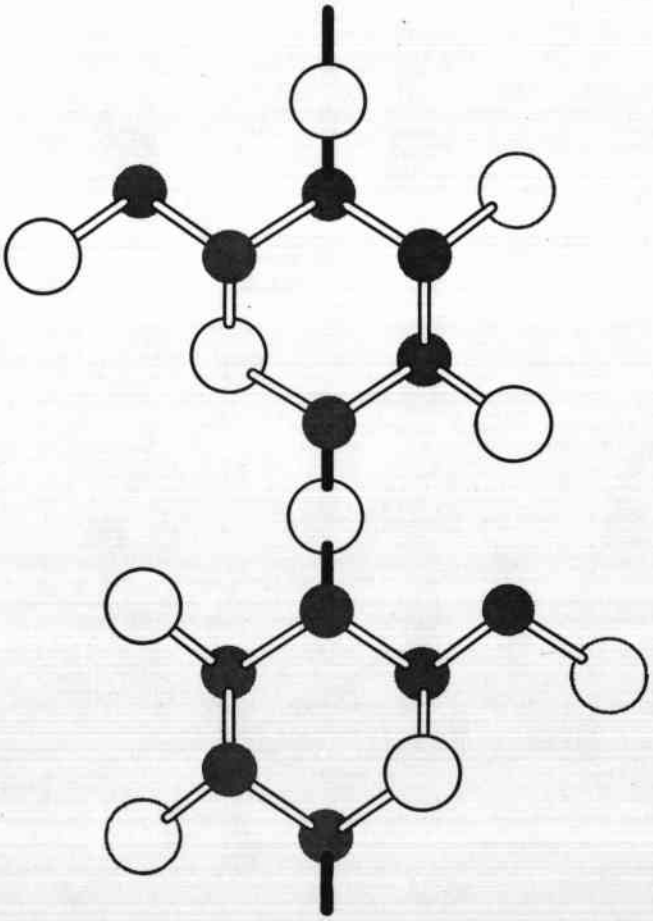
One would like to know if life on other planets shows the same stereoisomeric preferences as life on earth. It is generally assumed that the preference of earth life for L-amino acids and D-sugars is a simple accident, tracing back, perhaps, to an accident of catalysis when life first began. If only accident is involved, there would seem to be a good chance that life elsewhere is built around amino acids and sugars having optical activities different from those preferred on earth. If space explorers ever discover plants or animals on another planet, it will be of some importance to learn the precise steric configuration of these organisms. An extraterrestrial plant that appeared to be edible would be totally unassimilable if it contained D-amino acids and L-glucose.

Our own efforts at asymmetric synthesis of polymers are a direct outgrowth of the work that led in 1954 to stereoregular polypropylene. It will be recalled that in 1954 polyethylene was already well known as the plastic material used in "squeeze" bottles. Ethylene (C_2H_4) is the simplest hydrocarbon containing a double chemical bond. When it polymerizes, the double bond breaks and provides two free connecting links to join with two other molecules of ethylene—one on each side—in which bonds have similarly been broken. In this fashion thousands of ethylene units can link up to form a long chain, which packs together well with other similar chains. The result is a crystalline polymer that is both strong and flexible but has a rather low melting point.

The propylene monomer (C_3H_6) is an ethylene molecule in which one hydrogen atom has been replaced by a methyl group (CH_3). Unlike the molecule of ethylene, the propylene molecule is structurally asymmetric. Consequently if propylene is allowed to polymerize, the resulting polymer can take various steric configurations. If the polymerization is "undirected," the methyl groups will fall at random along the chain, now on one side, now on the other. Such chains do not pack well together and the result is a rubbery, amorphous polymer of relatively low strength. We called this structure "atactic," meaning without order. We found that certain catalysts would direct the polymerization so that the methyl groups would all fall on one side of the chain or would alternate regularly from side to side; in both cases the resulting polymers are crystalline. The former chains we called "isotactic"; the latter, "syndiotactic" [*see illustrations on pages 6 and 9*].

Isotactic polypropylene, because of its special structure, has a high melting point and yields a polymer of high crystallinity that is harder, tougher and

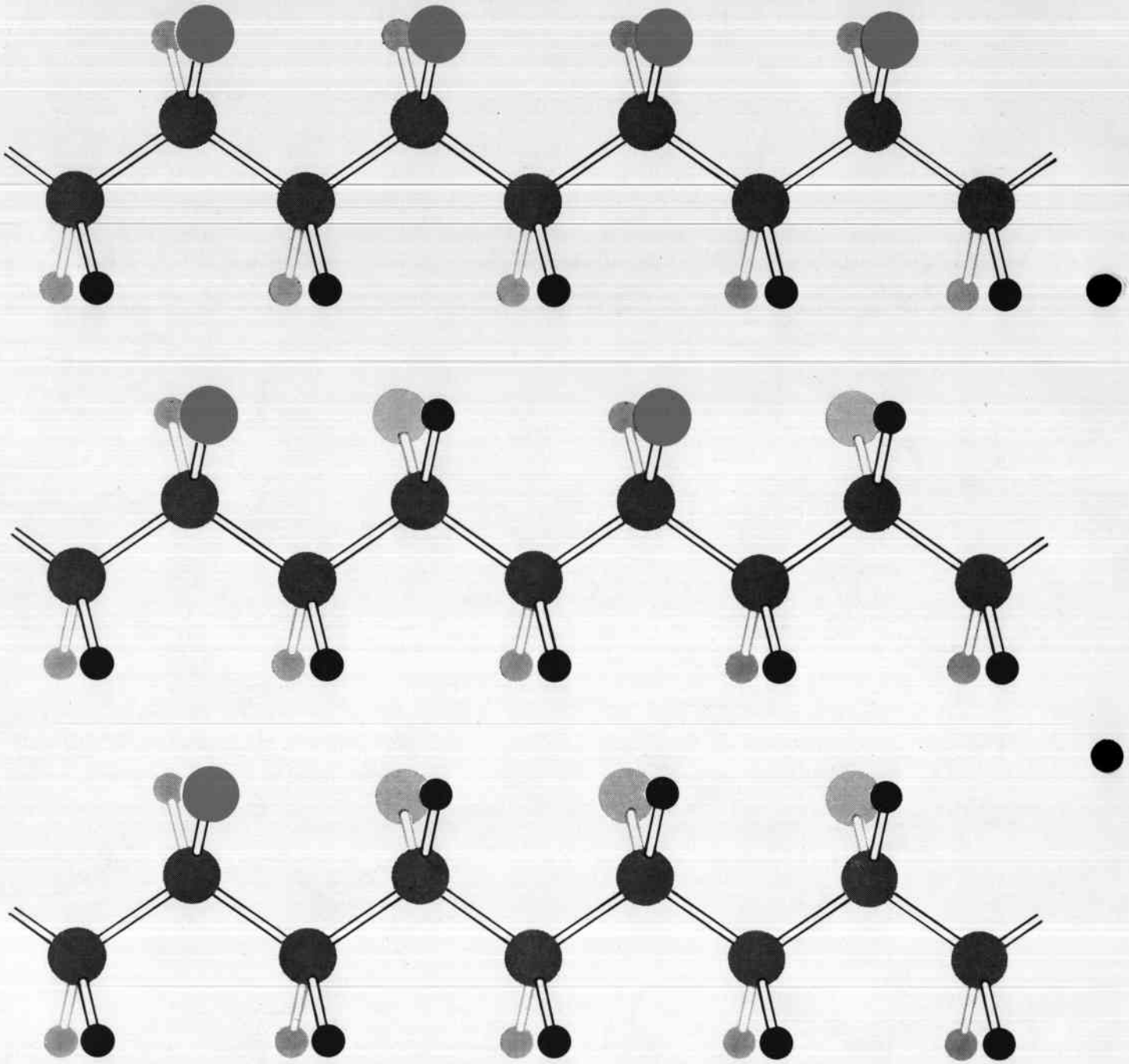




STARCH AND CELLULOSE (*left and right*) are giant molecules formed from *alpha*-D(+)-glucopyranose and *beta*-D(+)-glucopyranose respectively. In this illustration hydrogen atoms, shown in the monomers on the opposite page, have been omitted for clarity. Although the monomers have nearly identical physical properties, the giant molecules created from each are quite different.

more heat-resistant than polyethylene. As a textile fiber it is as strong as nylon and 30 per cent lighter in weight. It can also be produced in the form of a thin transparent film, as clear as cellophane and stronger if its polymer units are oriented by stretching. Extruded into pipes or molded into complex shapes, it can compete with metals in many applications.

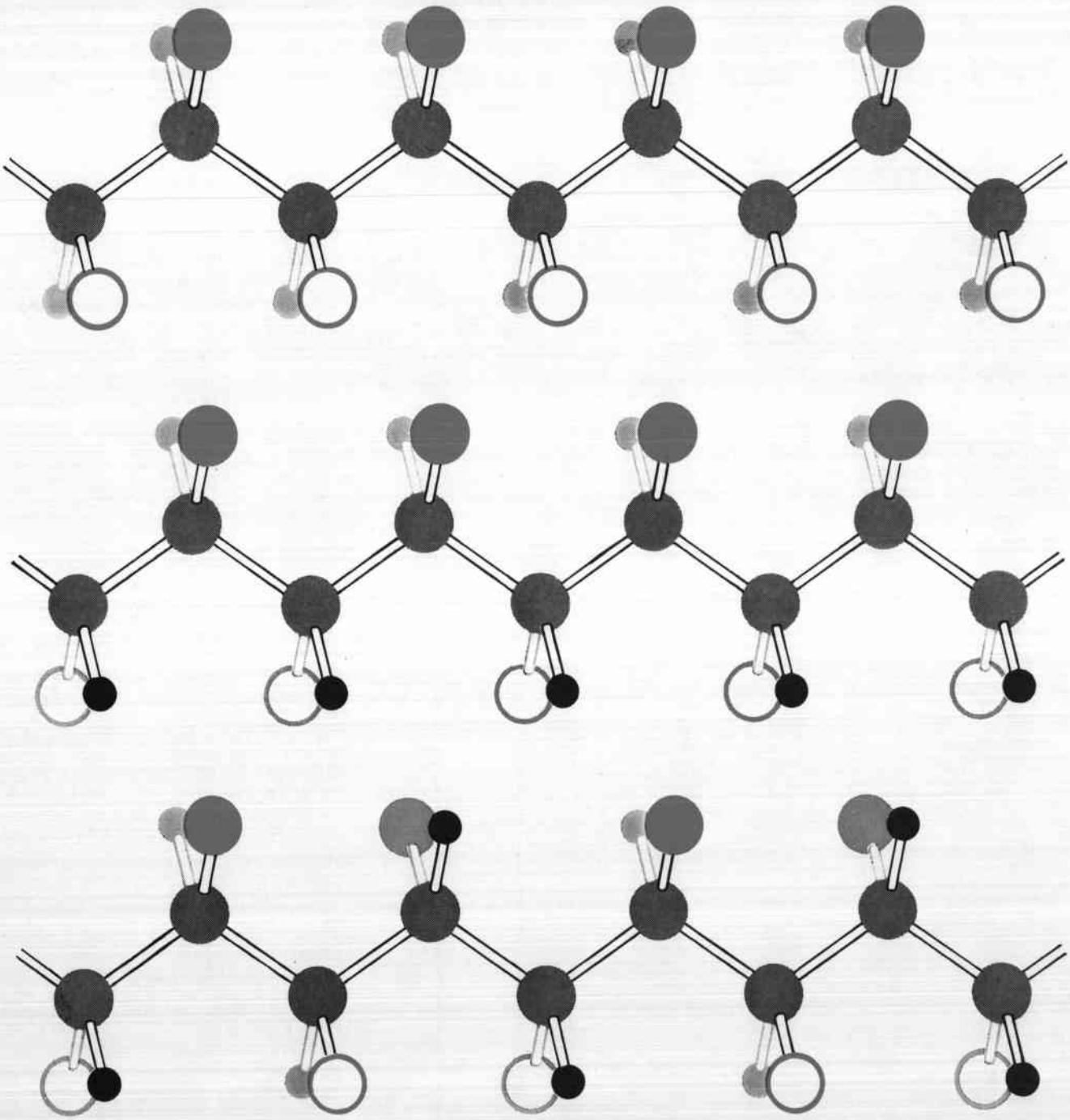
If ethylene is doubly substituted so that one hydrogen atom on each carbon is replaced with a different group of atoms, yielding a molecule with the type formula CHR:CHR′, stereospecific polymerization gives rise, as shown in the illustration on the opposite page, to three ordered configurations: threo-di-isotactic (R and R′ on the same side of the chain), erythro-di-isotactic (R and R′ on opposite sides) and di-syndiotactic (R and R′ alternating regularly from one side to the other). Polymers of each of these configurations, made in our laboratory,



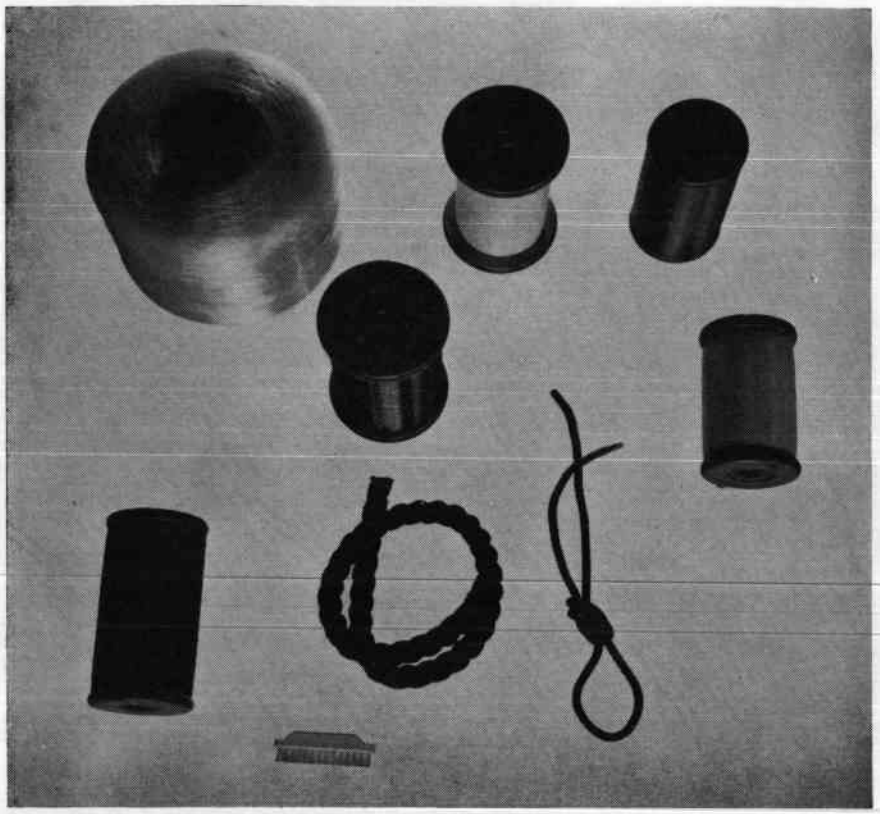
ORDERED AND DISORDERED POLYMERS can be produced when so-called vinylic (CH_2:CHR) monomeric units link up in head-to-tail succession. "R" (*colored ball*) may represent any group of atoms; thus if R is CH_3, the vinyl monomer is propylene and the polymer is polypropylene. The main chain of carbon atoms has been drawn as if flattened in a plane. (*Three-dimensional views appear on page 9.*) When R groups are all on one side of the chain (*top*), the polymer is called "isotactic." When R groups alternate from side to side (*middle*), the polymer is "syndiotactic." When R groups are disposed at random (*bottom*), the polymer is "atactic."

show a number of interesting properties. Their commercial value remains to be determined.

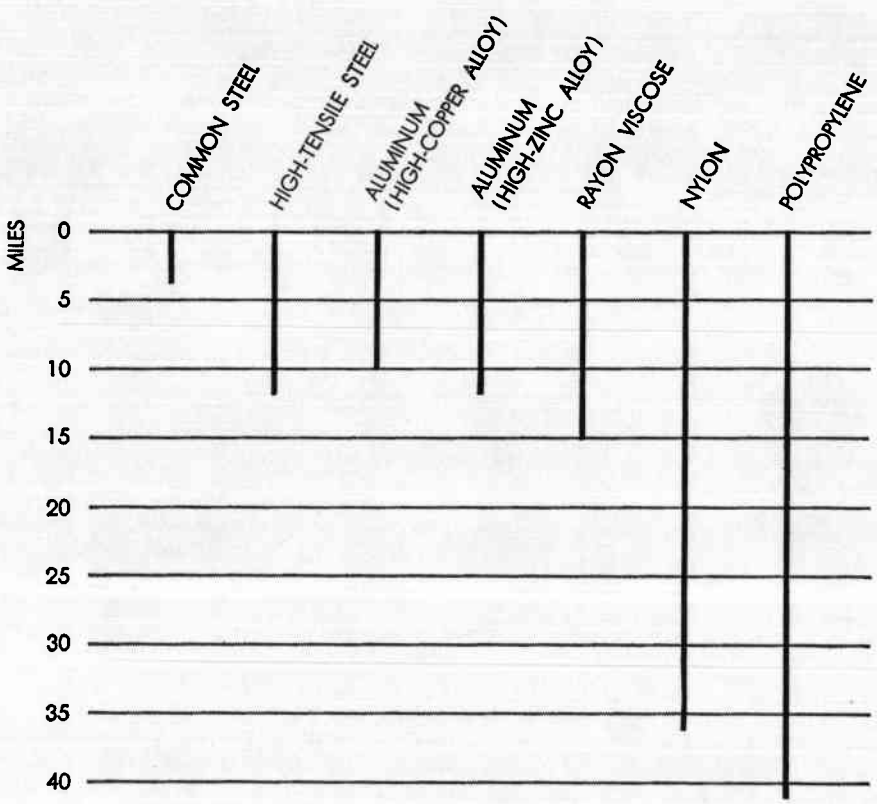
These various stereoregular polymers represented a small but definite step toward asymmetric synthesis in that each giant molecule is formed by long sequences of monomeric units having the same steric configuration. However, the giant molecules forming a crude vinyl isotactic polymer, such as isotactic polypropylene, do not display optical activity, primarily because inner compensations cancel out whatever slight optical activity might arise. It is true that in such polymers each carbon attached to a side group is asymmetric, but the asymmetry is very slight because it is due almost solely to difference in length and in configuration of the two portions of chain linked to two of its bonds. As we shall see, appreciable optical activity will occur in a polymer only when the asymmetry arises from strong nonuni-



MORE INTRICATE STEREO-ORDERING can arise when the vinyl monomer contains a different R group on each carbon, yielding a molecule of the form CHR:CHR′. New spatial arrangements are possible because the first carbon carries a hydrogen atom plus an R group, instead of two hydrogens, which are indistinguishable. When R and R′ are on the same side of the plane defined by the carbon chain (*top*), the polymer is threo-di-isotactic. When all the R groups are on one side and all the R′ groups on the other side (*middle*), the polymer is erythro-di-isotactic. When R and R′ alternate from side to side (*bottom*), the polymer is di-syndiotactic.



POLYPROPYLENE MONOFILAMENTS can be fabricated into a variety of forms. The strength of the polymer derives from its stereoregularity and high crystallinity. "Crystallinity" means that long-chain molecules of the polymer lie side by side in orderly fashion.



SELF-SUPPORTING LENGTHS OF VARIOUS FILAMENTS reflect, in a single value, a material's weight as well as its strength. The value is independent of diameter. Aluminum, although weaker than steel, can support as many miles of its own length. Polypropylene is almost as strong as nylon and 30 per cent lighter, hence its superiority by this measure.

formities of atomic configuration in the immediate vicinity of each of many carbon atoms.

So far we have not mentioned a common and important type of isomerism that is due simply to variations in three-dimensional structure and which is therefore called geometric isomerism. Geometric isomers arise in organic compounds that contain a double bond between two carbon atoms. When connected by a double bond, two carbon atoms are no longer free to rotate around a common axis, as they are when they are joined by a single bond. As a result it is possible to create isomers of different spatial geometry, depending on whether or not distinctive substituents attached to the two carbons are locked on the same side of the molecule, giving rise to the "*cis*" isomer, or on opposite sides, yielding the "*trans*" isomer.

In nature two well-known polymers, identical in chemical composition, are distinguished by their *cis* and *trans* geometric isomerism. *Cis*-1,4-polyisoprene is natural rubber, whereas *trans*-1,4-polyisoprene is gutta-percha [*see top illustration on page 10*]. The properties of the two substances are very different. Rubber, when vulcanized, is strong and elastic. Gutta-percha, vulcanized, becomes hard and tough rather than strong. It is often used as a covering for golf balls.

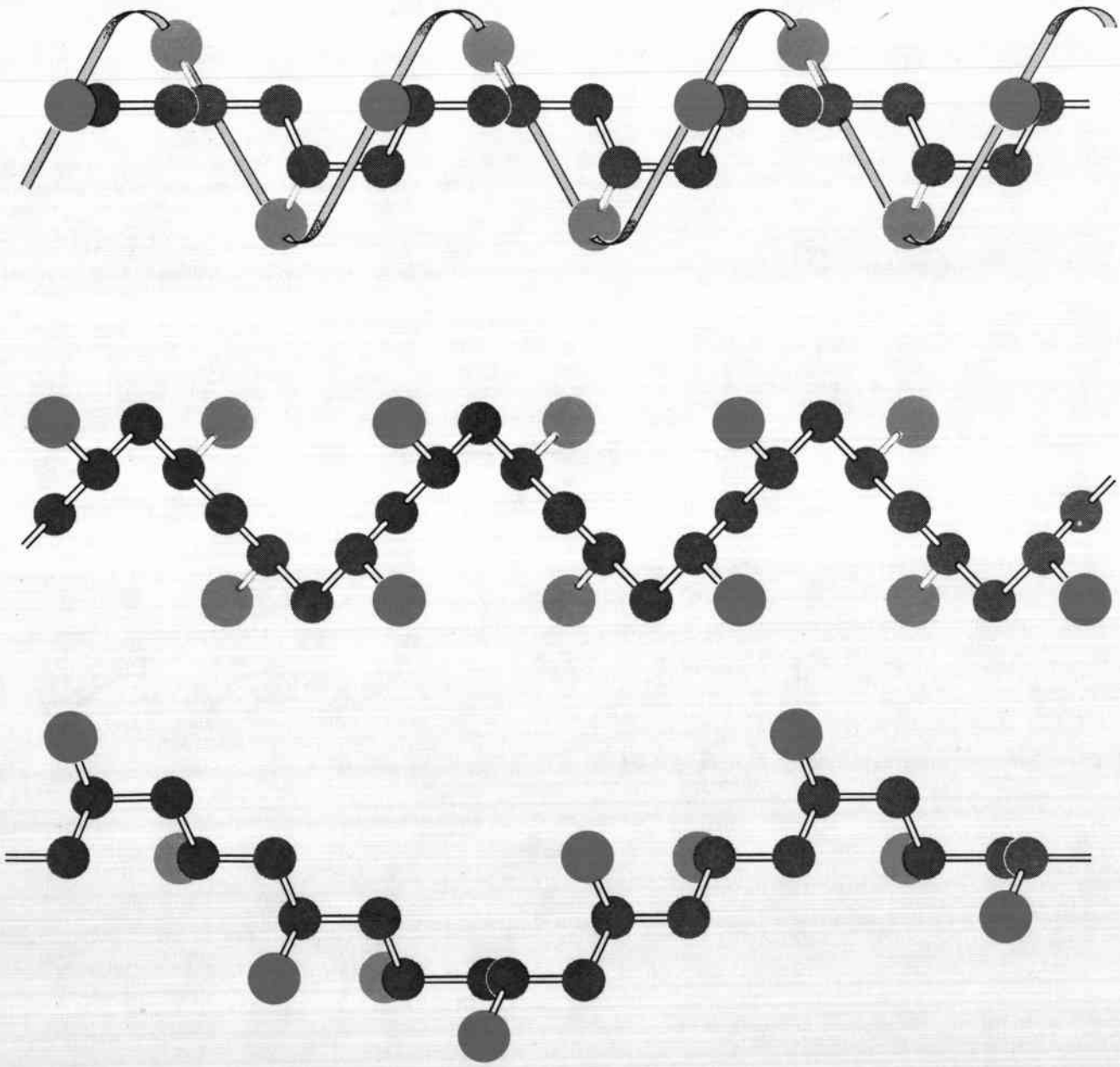
Early efforts to synthesize natural rubber failed because the monomer, isoprene (C_5H_8), would not link up in the required stereoregular form. In 1954, with new principles of stereospecific polymerization, a true synthetic rubber was synthesized in the U.S. and a true gutta-percha was created in our Milan laboratories. The polyisoprene synthetic rubber is now being produced commercially by at least two U.S. firms.

Our laboratory was the first to show that an excellent synthetic rubber is also produced by *cis*-1,4-polybutadiene. Cheaper than isoprene, butadiene (C_4H_6) has a single hydrogen atom where isoprene has a methyl group. Butadiene was commercially manufactured on a large scale in the U.S. during World War II as the principal ingredient in butadiene synthetic rubbers, which have been made in large volume ever since. The new stereoregular polymers of butadiene show elastic and dynamic properties quite similar to those of natural rubber and are far superior to those of the old butadiene synthetics, which have a nonuniform chemical composition and a disordered three-dimensional structure.

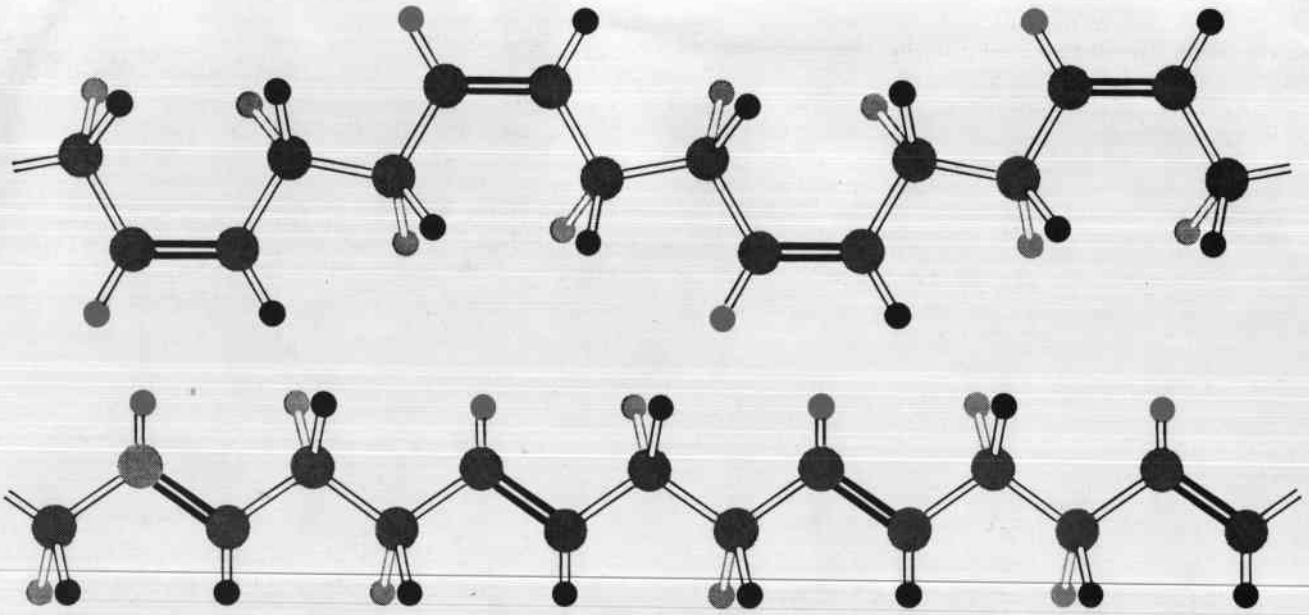
We have been able to produce synthetic rubbers containing more than 98 per cent of *cis*-1,4-polybutadiene, which even exceeds the steric purity of 97 to 98 per cent of *cis* units found in natural rubber. Automobile tires made from these high-purity polybutadienes compare very favorably with tires of natural rubber in durability, riding qualities and low heat build-up when operating at high speeds.

Out of this work with butadiene and related diolefins (molecules with two sets of double bonds) have come polymers demonstrating optical as well as geometric isomerism. Our approach to achieving optical isomerism has been to create polymers from derivatives of diolefins, such as butadiene, in which at least one hydrogen atom in each molecule has been replaced with more complex atomic substituents. When monomers of this sort are polymerized in a stereospecific way, the repetition of complex configurations produces strong local asymmetries in a large fraction of the carbon atoms. Each single giant molecule, if it could be extracted from the polymer and examined alone, should show optical activity. As normally produced, however, the polymer mix will contain equal numbers of isomeric molecules of opposite optical activity.

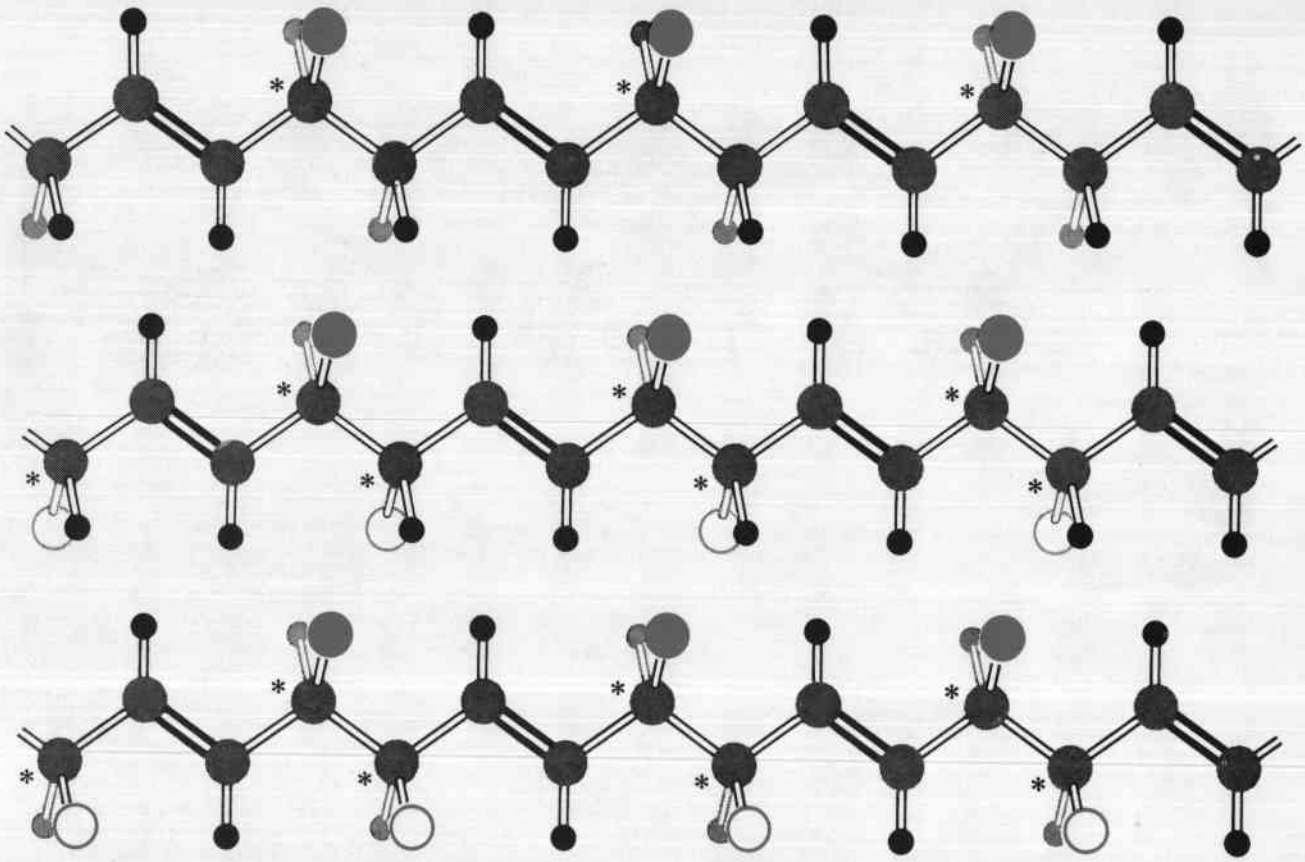
Our goal, therefore, was to find conditions that would favor the polymeriza-



THREE-DIMENSIONAL VIEWS OF POLYPROPYLENE correspond to the simplified views on page 6, except here hydrogen atoms are omitted. Colored balls represent methyl groups (CH_3). In isotactic polypropylene (*top*) the CH_3 groups define a helix (*gray ribbon*). In syndiotactic polypropylene (*middle*) structure is also regular. Atactic polypropylene (*bottom*) is nonregular in form.



RUBBER AND GUTTA-PERCHA (***top and bottom***) are geometric isomers built up from units of the same monomer, isoprene (C_5H_8). Rubber is *cis*-1,4-polyisoprene. The "*cis*" means that a methyl group (*color*) and a neighboring hydrogen (*black*) are on the same side of each pair of carbon atoms joined by a double bond. The "1,4" means that the four-carbon chain of the monomer is linked into the polymer through its first and fourth carbons. Gutta-percha is *trans*-1,4-polyisoprene, indicating that methyl groups and adjacent hydrogens lie across from each other. If the methyl groups in rubber are replaced by hydrogen atoms, the resulting polymer is *cis*-1,4-polybutadiene, a new and commercially promising synthetic with properties very similar to those of *cis*-1,4-polyisoprene.



OPTICALLY ACTIVE POLYMERS can be created from butadiene monomers containing substituents (*color*) for hydrogen either on the first carbon atom or on the first and fourth in the four-carbon chain of the monomer. The polymer of singly substituted butadiene (*top*) is of the *trans*-1,4-isotactic type. Polymers of doubly substituted butadiene can show erythro-di-isotactic succession (*middle*) or threo-di-isotactic succession (*bottom*). The asymmetric carbons are starred; each polymer can exist in the form of its mirror image.

tion of only one of the two optically active forms. The first successful asymmetric synthesis of this kind was achieved last year at the Politecnico di Milano with esters of sorbic acid.

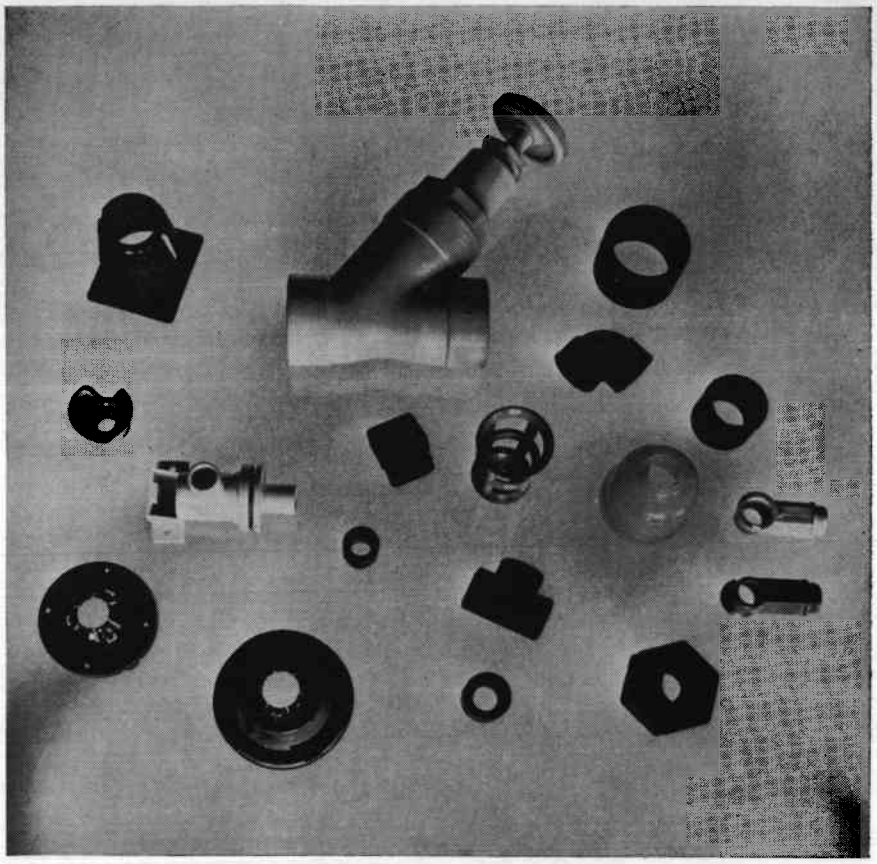
Sorbic acid itself can be regarded as a butadiene molecule that has been lengthened by a methyl (CH_3) group at one end and by a carboxyl (COOH) group at the other. Stereospecific polymerization of certain sorbic acid esters yields crystalline polymers having a "polytactic" structure: each monomer has three different sites of stereoisomerism—one of geometric type and two of optical type—which repeat regularly throughout the polymer.

In polymerizations carried out with a catalyst (butyllithium) that does not have in itself centers of optical asymmetry, there is nothing to establish at the outset a preference for one steric configuration over another. The result is a polymeric substance in which half the molecules have one configuration and half have another. Both molecules, however, are of the erythro-di-isotactic type [*see bottom illustration on opposite page*].

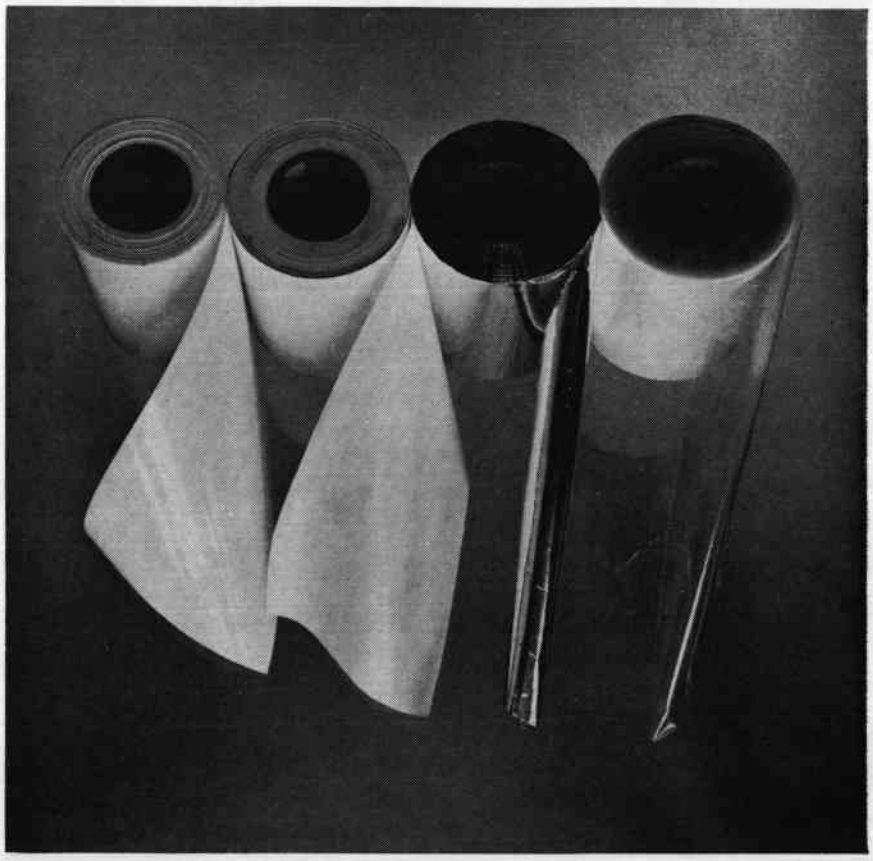
When a catalyst (isoamyllithium) that has a center of optical asymmetry was selected, the resulting molecules were preponderantly of one optical configuration. This was the first asymmetric synthesis of a giant molecule starting from a monomer that was not itself optically active. It is true, however, that the optically active macromolecules contain an optically active end group derived from the catalyst, which is partially consumed during the polymerization.

Subsequently we achieved asymmetric synthesis without consumption of pre-existing optically active reagents. The catalyst for this polymerization was a so-called organometallic compound that was bound to an optically active organic base. Although the base does not take part in the chemical reaction, it provides the steric guidance for the synthesis. (The catalyst is of ionic nature, meaning that the giant molecule grows outward from the catalyst like a growing hair. Oriented monomeric units are fed in at the base of the "hair" with the formation of an ionic bond that joins the end of the hair to the catalyst.)

This is not yet an "absolute" asymmetric synthesis inasmuch as some optical activity is required in the catalyst. The synthesis may suggest, nevertheless, a simplified model of the way nature carries out at least some stereospecific syntheses of optical isomers.



ARTICLES OF MOLDED POLYPROPYLENE yield tough parts and fittings coming into industrial use. In addition to strength the polymer has good heat and chemical resistance.



POLYPROPYLENE FILM resembles polyethylene but is stronger. The articles shown on this page and on page 8 are fabricated from polypropylene made by Montecatini of Italy.

The Author

GIULIO NATTA is director of the Institute of Industrial Chemistry at the Politecnico di Milano. Born at Imperia on the Italian Riviera in 1903, Natta studied chemical engineering at the Politecnico di Milano, where he received a degree in 1924. From 1926 to 1933 he taught at the University of Pavia, and from 1933 to 1939 he was professor of physical chemistry at the University of Rome. He joined the Institute of Industrial Chemistry in 1939. A fellow of Italy's famous Society of Lynxes (to which Galileo belonged), Natta was the first chemist to synthesize wood alcohol. His development of a method for converting alcohol to butadiene became the basis of the Italian synthetic-rubber industry. Natta was the author of "How Giant Molecules Are Made," which appeared in the September 1957 issue of SCIENTIFIC AMERICAN.

Bibliography

CONFORMATION OF LINEAR CHAINS AND THEIR MODE OF PACKING IN THE CRYSTAL STATE. Giulio Natta and Paolo Corradini in *Journal of Polymer Science,* Vol. 39, No. 135, pages 29–46; September, 1959.

THE KINETICS OF THE STEREOSPECIFIC POLYMERIZATION OF α-OLEFINS. G. Natta and I. Pasquon in *Advances in Catalysis,* Vol. II, pages 1–66; 1959.

ORGANOMETALLIC COMPLEXES AS CATALYSTS IN IONIC POLYMERIZATIONS. G. Natta and G. Mazzanti in *Tetrahedron,* Vol. 8, pages 86–100; 1960.

PROGRESS IN FIVE YEARS OF RESEARCH IN STEREOSPECIFIC POLYMERIZATION. Giulio Natta in *The Society of Plastics Engineers Journal,* Vol. 15, No. 5, pages 373–382; May, 1959.

RESEARCH ON CRYSTALLINE SYNTHETIC HIGH POLYMERS WITH A STERICALLY REGULAR STRUCTURE. *Nuovo Cimento* (Supplement), Vol. 15, Series 10, No. 1; 1960.

Arthur D. Little, Inc.

ACORN PARK
CAMBRIDGE, MASSACHUSETTS 02140
AREA CODE 617 864-5770

November 26, 1968

Dr. Guilio Natta
Montecatini
Largo Guido Donegani 1-2
Milano, Italy

Dear Dr. Natta:

Our company is currently engaged in a project for a group of companies interested in disposable nonwoven fabrics. This study is concerned with both the technology and market opportunities for these products. I am enclosing a copy of our proposal and a detailed outline of the project to explain more fully the reason for my letter to you.

During the course of our evaluation of the technical literature it was obvious that you and your organization have extensive experience in the preparation of films. We are specifically interested with your experience in the splitting of oriented films. Is any of this work patented either in Europe or the United States? Any information you can send us will be greatly appreciated.

Very truly yours,

Claire Canty

C. Canty

CC/sac
Enclosures

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MACROMOLECULAR DIVISION

President: Prof. O. WICHTERLE
Institute of Macromolecular Chemistry
Czechoslovak Academy of Sciences
Prague 6 - Petřiny (Czechoslovakia)
Cable: Macro Prague, Phone: 353351
Telex: Macro 064/0298 Prague

fortune con Damisso

December 5, 1967

To All Members of the Division

Re: Nomenclature Committee

As you know from the Brussels minutes, item 4 (2), it was resolved to form a Nomenclature Committee under the chairmanship of Dr.Kurt Loening. The Members present made suggestions concerning the Members of this Committee which are mentioned in the minutes. Nevertheless, it is desirable to collect nominations even from all Members who had no possibility to come to our meeting in Brussels and give opportunity for additions or corrections to those who were present.

In this way we shall provide Dr.Loening with a full list of interested nomenclature experts. He will then take the final decision who will act on his Committee and who will act as consulting member to this Committee in various language areas.

To speed up the procedure may I ask you to write about your proposal directly to

Dr.Kurt L. Loening
Nomenclature Director
Chemical Abstracts Service
Columbus
Ohio 43210.614/293 5022
USA

if possible not later than within two weeks.

Re: Minutes from the Brussels Meeting - Amendment

Among the excused Members the name of Professor G.V.Schulz was omitted.

Prof.O.Wichterle

Riproduce

E' scaduto il termine

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MACROMOLECULAR DIVISION

President: Prof. O. WICHTERLE
Institute of Macromolecular Chemistry
Czechoslovak Academy of Sciences
Prague 6 - Petřiny (Czechoslovakia)
Cable: Macro Prague, Phone: 353351
Telex: Macro 064/0298 Prague

December 5, 1967

To All Adhering Organizations of IUPAC

Re: Circular Letter of November 15, 1967 - Amendment

Dear Colleagues,

By a regrettable clerical error the name of Professor G.V.Schulz was ommitted in the list of Titular Members of the Macromolecular Division Committee. Please, introduce in the list:
Titular Member:

SCHULZ G.V., Prof., Institut für physikalische Chemie, Universität Mainz, Jakob-Belder-Weg 15, Mainz (Germany).

Sincerely Yours,

Prof.O.Wichterle

From: Dr. L. E. Alexander
Mellon Institute
4400 Fifth Avenue
Pittsburgh, Pa. 15213

Date September 19, 1968

To: Dr. G. Natta
Istituto di Chimica Industriale del Politecnico
Milan
ITALY

It is requested that permission be granted to use:

358 From Nuovo Cimento 15, Suppl. 1, 111 (1960) by G. Natta and P. Corradini: Fig. 3, p. 116, "Structure of cis 1-4-polybutadiene as seen in three projections".

499 From J. Poly. Sci. 51, 505 (1961) by Natta, Corradini and Bassi: Fig. 7, p. 512, "Conventions for the specification of internal rotation angles."

We have received permission from the journals.

In the following proposed publication:

Leroy E. Alexander
"X-Ray Diffraction Methods in Polymer Science"

Publisher: Wiley-Interscience, New York

Type of publication: Professional

Full credit to your publication will be given. If you have a preferred form, please indicate below. Thank you for your consideration.

Leroy E. Alexander
Signature

Permission granted yes
Permission withheld

Date: October 8, 1968

Signature of author

A duplicate copy is enclosed for your files.

Ave

March 11, 1968

Dear Dr. Watta,

I wish to write and ask if I may have the honor of receiving your autograph or your autographed picture.

I am a 28 year-old college history teacher.

Thank you.

Sincerely,
Donald Mitchell
Lakes Area College
Estherville, Iowa
51334

r 24/4/68

non rispondere Alle

A. R. KEMP, CONSULTING CHEMIST
231 PROSPECT AVENUE
LONG BEACH 3, CALIFORNIA
GEneva 3-0300

Feb 23 1968

Dr. Giulio Natta,
Istituto di Chimica Industriale del Politecnico 127
Milano, Italy

Dear Dr. Natta: After sending you a complimentary copy of my monograph on "Polymers and Macromolecules" at your request so you could review it for Italian journals it was a shock to receive your letter of Jan 11 1968 saying it was not convenient to review the monograph for some undisclosed reason.

Your high standing in the world of Polymer Chemists gave me hopes that you would at least send me some personal comments as to your impressions regarding my work.

I am promised reviews from several sources and have already received many favorable comments. due to the fact that very few chemists are acquainted with the Osmotic Pressure method for molecular weight determination it is hard to find those capable of making a meaningful review.

I have sold copies to all the large industrial laboratories in U.S. doing polymer research. Some companies have ordered two and three copies. It will no doubt be some time before these companies can set up to check my experimental results but this will be done and I expect my results to be confirmed

(over)

Dr. Natta it would be very satisfying to me if you would write me your personal views and comments relating to my monograph. What were your impressions?

Numerous universities in various countries also have my monograph so within a few months the whole world of polymer scientists can be in a position to check up on my work and my conclusions. I would sincerely hope that you also will find it worth while to test the validity of my work since it is a strong challenge to results and theories developed and held to for the past 25 years.

Please let me have your personal comments on my work and I assure you this will be highly appreciated by me.

Cordially,

A. R. Kemp.

A. R. KEMP, CONSULTING CHEMIST

231 PROSPECT AVENUE
LONG BEACH 3, CALIFORNIA
GENEVA 3-0300

Dear Dr Natta:

I wonder how far you have got into my monograph on Polymers and Macromolecules as regards sending me your review & those in all the Italian Chemical & Physical Journals.. I would greatly appreciate getting your Comments.

Yours Sincerely

Archie R Kemp.

Not in Chemical Abstracts
recently
or a reference

Am

MYRON LaVAKE ASSOCIATES
BOX THREE
FARMINGDALE, N. J.
U.S.A.

Dear Dr. Natta:

I would greatly appreciate it if you would honor my children with your autograph for their collection.

Thank you.

Myron LaVake

R 6/2/68

Dear Prof. Dr. Natta: Your great interest in Polymers should find this most interesting. If you would prefer it for me to publish in some Italian journal I would be pleased to send you a copy

A R Kemp
8/29/67

PUBLICATION ANNOUNCEMENT

MONOGRAPH ON POLYMERS AND MACROMOLECULES

Viscosity Molecular Weight Studies and Relationships

deals with several Nat + Syn. rubbers and many other widely studied polymers

CONTENTS

Results of this three year research effort requires decisive changes be made in presently accepted ideas about the thermodynamic-statistical behavior of macromolecules in solution. Natural and synthetic rubber, polystyrene, and many other polymers studied.

Author and Publisher

A. R. Kemp
Research and Consulting Chemist
231 Prospect Avenue
Long Beach, California 90803

30 years Charge of rubber + polymer research at Bell Labs. 20 yrs Consultant in rubber + polymer field.

Monograph 168 pages incl. 48 tables of data. - Price $12.50 prepaid

$0.50 extra for foreign mailing

Dr. V.

This work represents research at Univ of Ro Lab of 1958-1963 while research assoc. there under auspices of THARGI Rubber Tech. Foundation. This monograph upsets some presently held polymer theories and develops theories of elasticity which have been advanced

ARK

Feb.8, 1968

Mr. Michael Sinclair, Editor
Industrial Research Inc.,
Executive Offices,
Beverly Shores, Ind. 46301 (USA)

Dear Mr. Sinclair:

Thank you very much for kindly sending me the January issue of Industrial Research containing my article on "Polymers", and for the check for the amount of $ 100.

It was a pleasure for me to contribute an article for your journal.

With kindest regards.

Giulio Natta

Sept. 17, 1968

Dr. William Kaufmann
W.H. Freeman and Company, Publi
660 Market Street
San Francisco 4, California, USA

Dear Dr. Kaufman,

Thank you very much for kindly sending me the book collecting readings from "Scientific American" . I have highly appreciated it.

With kindest regards.

Giulio Natta

May 22, 1968

Mr. William Kaufmann,
W.H.Freeman & Co. Publishers
660 Market Street,
San Francisco 4, California (USA)

Dear Mr. Kaufmann:

Thank you for your kind letter of March 20, which has reached me only now, and for the information you give me about the publication in the Offprint series of my article in Scientific American.

Kindest regards,

Giulio Natta

Kurt L. Loening
Nomenclature Director

CHEMICAL ABSTRACTS SERVICE
A DIVISION OF THE AMERICAN CHEMICAL SOCIETY

March 19, 1968

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano
Italy

Dear Dr. Natta:

Thank you very much for your letter of March 11. Though I am sorry to find that you are too busy to accept the appointment, I much appreciate your helpfulness and suggestion for membership which I certainly shall pursue.

Sincerely,

Kurt L. Loening

Kurt L. Loening
Chairman, Nomenclature Commission
IUPAC Macromolecular Division

KLL:bca

THE OHIO STATE UNIVERSITY · COLUMBUS, OHIO 43210 · 614 / 293 5022

Kurt L. Loening
Nomenclature Director

February 8, 1968

CHEMICAL ABSTRACTS SERVICE
A DIVISION OF THE AMERICAN CHEMICAL SOCIETY

Dr. Giulio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano
Italy

Dear Dr. Natta:

Thank you very much for your helpful and informative letter of January 24. Being well acquainted not only with your work in polymer chemistry but also with your nomenclature contributions in this area, I would like to extend an invitation to you to join the nomenclature committee of the new Macromolecular Division of IUPAC. Your experience and contributions would be most valuable to the group. I know, of course, that you are very busy and have many other commitments. However, I hope that you will find it possible to accept this appointment.

Please inform me as soon as possible of your decision. Should you find it impossible to accept, I shall then follow your suggestions for an Italian representative, since I am attempting to achieve a truly international composition for this group.

Sincerely,

Kurt L. Loening

Kurt L. Loening
Chairman, Nomenclature Commission
IUPAC Macromolecular Division

KLL:amk

C O P Y

Wayne State University

September 26, 1968

Professor H. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201

Dear Professor Mark:

Thank you very kindly for your letter of September 9, 1968 informing me of the availability of Dr. Oddo.

I am turning this material over to our Chairman, Professor C.L. Stevens with a request to explore the intesest of our Organic Division to invite Dr. Oddo for a lecture here.

I am sure that our Organic Division will, before too long, wish to add an Organic Polymer Chemist to its staff. The recommendation by Professor Natta and your own favorable comments make me believe that Dr. Oddo may be a very good man to have and I will be looking forward with great interest to the reaction of our Organic Division.

With best regards.

Sincerely yours,

Wilfried Heller

Jan.11, 1968

Dr. A. R. Kemp,
231 Prospect Avenue,
Long Beach 3, California (U.S.A.)

Dear doctor Kemp:

Further to our previous correspondence, I wish to inform you that I do not think it convenient to review your monograph on Polymers and Macromolecules in an Italian journal.

Yours sincerely,

Giulio Natta

Sept. 11, 1967

Dr. A. R. Kemp
231 Prospect Avenue
Long Beach, California 90803 (USA

our ref. 487/lmv

Dear doctor Kemp:

I refer to your announcement of publication of a monograph on polymers and macromolecules. If possible, I would appreciate receiving a complimentary copy of it. Then, after looking it over, I will let you know whether I may review it for Italian journals.

Thanking you in advance, I send you kind regards.

Giulio Natta

485

Mr. C. Canty
Arthur D. Little Inc.
Acorn Park
CAMBRIDGE, MASSACHUSETTS 02140
U.S.A.

VM/cr

20th January '69

Dear Mr. Canty:

Prof. Natta has passed on to us your letter CC/sac of November 26th 1968.

Our Company, which is a wholly owned subsidiary of the Montecatini Edison Group, produces polypropylene film (trade name MOPLEFAN) and polypropylene fiber (trade name MERAKLON); in our range of products we have also a polyvinylchloride fiber (trade name MOVIL).

As far as the splitting of polypropylene oriented film is concerned there are a number of processes and patents, among which are probably of major interest those of:

- Plasticizers, England
- Mitsubishi Heavy Industries, Japan
- Barmer Maschinenfabrik, Germany.

In your country, as you certainly know, Chevron Chemical, Dayton, Tenn. produce a fibrillated polypropylene carpet yarn called POLYLOOM.

For split film applications our Company produces special grades of resin, that are sold to Converters making split film yarns for bags and carpet backings, or split film yarns for twines, ropes and the like.

./.

Mr. C. Canty VM/cr 20.1.89

Should you need further information on this matter please do not hesitate to contact us. To speed up things we suggest that you address correspondence to: Messrs. POLYMER S.p.A. - Servizio Sviluppo - 1-2 Largo Donegani, Milan, Italy.

From the enclosures to your letter in reference we have learnt about your Company's project in the field of non-woven disposable fabrics. This subject is of interest to our Company, and we would be glad to discuss with you about our partecipation in the group of firms sponsoring your project. Any information from you on this matter will be much appreciated.

Looking forward to your kind answer,

We remain

Very Truly Yours

" P o l y m e r "

THE UNIVERSITY OF MICHIGAN
DEPARTMENT OF CHEMICAL AND METALLURGICAL ENGINEERING
ANN ARBOR, MICHIGAN

UM 150

Gentile Pasquon e Danusso

15 Aprile 1968

Chiar.mo Prof.Giulio Natta
Istituto di Chimica Industriale del Politecnico
Piazzale L.da Vinci 32
Milano

Illustre Professore:

durante la seconda metà del prossimo mese di Luglio sarò a Milano e vorrei avere occasione di poterla ossequiare e di visitare il suo Istituto per rendermi conto delle ricerche attuali. Mi interesserebbe conoscere e visitare i laboratori di Pasquon e Danusso e in genere di altri studiosi che si occupano di ricerche nel campo della catalisi e polimerizzazione. So bene che il mese di luglio non e' molto propizio per queste visite, ma purtroppo non ho altra scelta. Le sarei grato se mi potesse fare sapere sulla possibilita' di una tale visita e di trovare lei e le altre persone a Milano. Inoltre io sarei ben lieto di discutere le nostre piu' recenti ricerche nel campo della polimerizzazzione elettrochimica e della catalisi eterogenea.

Se precisa data opera di farmi essere che ci sarà anche Pasquon e Danusso

Ernestina, Pietro e Paolo saranno con me. E' nostra viva speranza di potere in questa occasione incontrare e passare alcune ore con lei e la signora Rosita.

La prego accogliere i miei piu' vivi saluti ed ossequi da estendere anche alla signora Rosita da parte di noi tutti.

Suo dev.mo,

Peppe Parravano

Peppe Parravano

Roy Pitts. inviata foto 5.3.68
P.O. Box 1306.
Anniston, Alabama. 36201.
U.S.A.

Honorable Giulio Natta.
54 Via Mario Pagano,
Milan, Italy.

-20 February 1968-

Dear Dr. Natta:

My long time hobby is collecting autographs of famous people, and I would certainly like to be able to add you to my collection. Would you please, be so kind as to sign the enclosed cards and mail them back to me. I would also like very much to have a personally autographed photo of you for my collection.

That you might more fully understand my requests - let me explain - you see I am a "heart-patient" forbidden physical exertion, and therefore I spend many enjoyable hours with my autograph collecting hobby.

I hope you will understand that this is my long time hobby - "not just a passing fancy" and that all your efforts and cooperation will be very highly and genuinely appreciated.

I have probably the worlds finest individually collected contemporary autograph collection and it has been collected with the help of such fine and truly great people as yourself.

With my very best personal regards to you - and - looking anxiously forward to hearing from you, I am,

Most sincerely yours,

Roy Pitts

Roy Pitts.
P.O. Box 1306.
Anniston, Alabama.
36201.
U.S.A.

PS - My autograph collection is my "pride and joy" and I sure will appreciate anything you will send me for it.

- I will truly appreciate anything you will send for my collection about your career - highlights - observations -

Thank you again!

- You are most important to me in my autograph collection - and I sure would like to hear from you - my very best wishes to you - good luck - and God bless you - always!

- I will certainly appreciate anything you will send me for my autograph collection - especially relative to your Nobel Award -

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

COLLEGE OF LIBERAL ARTS
DEPARTMENT OF CHEMISTRY

September 20, 1968

Professor H. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201

Dear Herman:

Thanks very much for your letter about Dr. Oddo. I will pass it along to our department head for his consideration although at the present time we are in a pretty critical financial state, so I am not very optimistic about our finding money to hire a new man, but if anything develops, I will let you know.

Sincerely,

Speed

C. S. Marvel

CSM:gb

March 11, 1968

Dr. Kurt L. Loening
IUPAC Macromolecular Division
The Ohio State University
Columbus, Ohio 43210

our ref. 97/eg

Dear Doctor Loening:

Thank you very much for your kind letter of February 8, and accept my apologies for my delay in answering.

I also thank you for your proposal to join the Nomenclature Committee of the new Macromolecular Division of IUPAC - however I think it would be very difficult for me to actually contribute to the works of said Committee.

Therefore I would suggest you to contact Prof. Paolo Corradini, who is, in my opinion, quite fit to replace me in that appointment. Moreover, Prof. Corradini is presently spending one year in the United States (his present address: c/o Dept. of Chemistry - Polytechnic Institute of Brooklyn - 333 Jay Street, Brooklyn 1, N.Y.).

Kindest personal regards.

G. Natta

copia a Corradini
15/3/68

Jan. 24, 1968

Dr.Kurt L. Loening,
Nomenclature Director,
Chemical Abstracts Service,
Columbus, Ohio (USA)

our ref.48/lmv

Dear doctor Loening:

This is in reply to a letter that Prof.Wichterle wrote on Dec. 5 concerning the proposals for additional names of nomenclature experts for the Macromolecular Division of IUPAC. I apologize for my delay in answering, but hope that my suggestions may be still useful.

In the past, both Prof.Danusso and myself dealt with the first nomenclature of tactic polymers (isotactic, syndiotactic and di-isotactic, etc.). With Profs. M.L.Huggins, H. Mark and V.Desreux, I published a definitive article in the J. of Polymer Science 56, 153 (1962). This paper was translated into Italian by Prof.F.Danusso in "Chim. e Ind. (Milan)" 46, 536 (1964). More recently, Prof.Corradini (Istituto di Chimica Generale dell'Università, Via Mezzocannone 4, Napoli) dealt with a sub-commission of the former commission of Macromolecules IUPAC to formulate a nomenclature for the conformational properties of polymers with a regular structure.

Prof.P.Corradini is presently spending one year at the ~~Polymer Research Institute~~, Polytechnic Institute of Brooklyn, 333 Jay Street, Brooklyn 1, N.Y.; he may be useful for possible consultations in the U.S.

Another fully qualified person for chemical nomenclature is Prof.P.Pino, of the Istituto di Chimica Organica Industriale, Università, Viale Risorgimento 35, 56100 Pisa.

Kind regards,

Giulio Natta

22.4.1968

Chiar.mo
Prof. B. Parravano
The University of Michigan
Department of Chemical and
Metallurgical Engineering
Ann Arbor, Michigan (USA)

ns.rif.N. 244/r1

Caro Beppe,

sono lieto di apprendere dalla tua lettera del 15 u.s. che verrai a Milano con la famiglia nella seconda metà di luglio. Con Rosita speriamo di essere in città in modo da avere il piacere di incontrarvi e di passare alcune ore insieme.

Anche i miei collaboratori Pasquon e Danusso, ed altri, saranno lieti di vederti e di parlare con te di argomenti di comune interesse, e di mostrati il nostro Istituto. Ti sarei grato se tu potessi avvisarmi con un certo anticipo della data della tua venuta, in modo da organizzare meglio la visita a questo Istituto.

Molti cordiali saluti.

Giulio Natta

DEPARTMENT OF CHEMISTRY

October 4, 1968

Professor G. Natta
Direttore dell Istituto di Chimica
Industriale del
Politecnio di Milano
Piazza Leonardo da Vinci 32
Milano, Italia

Dear Professor Natta:

I am writing to thank you for your continuing help and support in re-building our Polymer Research Institute. Paolo Corradini has been with us for almost a year and has contributed enormously. We are all delighted with him. We hope to collaborate and cooperate in polymer science for many years to come.

As you know, Paolo and his family are returning to Italy at the end of this semester. I have now completed arrangements for Giuseppe Allegra to replace Paolo. I know that you were instrumental in convincing Dr. Allegra to come; your faith in us is deeply appreciated. I know that we will have a very productive association with Giuseppe Allegra and I hope that we have begun a continuing association with Italian polymer scientists.

Please convey my warmest greetings to Mrs. Natta.

With best wishes, I remain,

Sincerely yours,

Murray Goodman

Murray Goodman
Director
Polymer Research Institute

MG:DL

DEPARTMENT OF CHEMISTRY

January 23, 1968

Professor G. Natta
Institute of Industrial Chemistry
Polytechnic Institute of Milan
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

Many thanks for your very kind letter of December 18th and your invitation for me to visit your laboratories.

Unfortunately, at the present time my plans for going to Europe are very indefinite. Should they become definite in the near future, I shall be happy to communicate with you.

With warmest regards and good wishes,

Sincerely yours,

Murray Goodman

MG:DL

Murray Goodman

POLYTECHNIC INSTITUTE OF BROOKLYN

BROOKLYN - NEW YORK

May 15, 1968

Dear Dr. Natta:

The Corporation of Polytechnic Institute of Brooklyn requests the honor of your presence at its annual dinner on the evening of Wednesday, June 12, at the University Club in Manhattan.

The dinner will be given in honor of Mr. Arthur Collins, President and Chairman of the Board, Collins Radio Company, Mr. William Leistner, President of Argus Chemical Corp., and Dr. Robert Wood, Under Secretary Department of Housing and Urban Development, upon whom Polytechnic will confer honorary degrees at commencement.

The guests will include leaders in industry, finance, engineering, science and education, and we hope you will honor us by being one of them.

Cordially yours,

Ernest Weber

President

Dr. Giulio Natta
Instituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

Reception 7:00 p.m.
Dinner 7:30 p.m.

r.s.v.p. - black tie

April 9, 1968

Dr. A. Peterlin
Research Triangle Institute
Post Office Box 12194
Research Triangle Park
North Carolina 27709 (USA)

Dear Doctor Peterlin:

Thank you very much for the reprints that you always send to me.

Under separate cover, I send you some of our recent papers.

Kind personal regards.

G. Natta

Sept. 17, 1968

399/lw

Prof. H. Mark,
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn, New York 11201 (U.S.A.)

Dear Herman:

Thank you very much indeed for the kind interest you take in looking for an academic position for dr. Oddo. I am sure that your recommendation will greatly help him.

Rosita joins me in sending you and Mimi kindest regards.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201

September 9, 1968

Professor Giulio Natta
Istituto di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci 32
Milano, Italy

My dear Giulio:

I just received a letter from Dr. Nino Oddo in which he states that he wants to obtain an academic position in the U.S.A.

In view of your favorable recommendation I shall be very glad to assist him in his efforts and I am almost sure that we can obtain for him a suitable position in one of the major universities in this country.

Mimi and I send to you and Rosita our most cordial regards and best wishes.

As always,

H. Mark

H. Mark

ringraziarlo per l'interessamento

HM:mw

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor C. S. Marvel
Department of Chemistry
University of Arizona
Tucson, Arizona

Dear Professor Marvel:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university, and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201

September 9, 1968

Professor M. Szwarc
State University College of Forestry
at Syracuse University
Syracuse, New York

Dear Professor Szwarc:

I am enclosing a copy of a biography from Dr. Nino Oddo who is interested in obtaining a position at a university, and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientistwho possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor W. Heller
Chemistry Department
Wayne University
Detroit 1, Michigan

Dear Professor Heller:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university, and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor W. J. Bailey
Department of Chemistry
University of Maryland
Baltimore, Maryland

Dear Professor Bailey:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university and the copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor A. Tobolsky
Department of Chemistry
Princeton University
Princeton, New Jersey

Dear Professor Tobolsky:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor Murray Goodman, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn

Dear Professor Goodman:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor C. C. Price
University of Pennsylvania
Philadelphia 4, Pennsylvania

Dear Professor Price:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university, and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor R. Stein
University of Massachusetts
Chemistry Department
Amherst, Mass.

Dear Professor Stein:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university, and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor F. W. Billmeyer Jr.
Chemistry Department
Rensselaer Polytechnic Inst.
Troy, New York

Dear Professor Billmeyer:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university, and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

HM:mw
Enc.

H. Mark

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor Leon St. Pierre
Department of Polymer Chemistry
McGill University
Montreal, Canada

Dear Professor St. Pierre:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

HM:mw
Enc.

H. Mark

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201
643-2486

September 9, 1968

Professor J. K. Stille
Department of Chemistry
The University of Iowa
Iowa City, Iowa 52240

Dear Professor Stille:

I am enclosing a copy of the biography of Dr. Nino Oddo who is interested in obtaining a position at a university, and a copy of a letter from Professor Giulio Natta.

I know Dr. Oddo, have heard him lecture in Italy and discuss his work with other European experts and I can highly recommend him as a brilliant, dependable and hard working scientist who possesses initiative in starting and persistency in completing his research work.

If you should be interested please get in touch with him at 3585 West 43rd Avenue, Vancouver 13, B.C., Canada.

With kindest regards, I am,

Sincerely yours,

H. Mark

HM:mw
Enc.

June 18, 1968

To
Brooklyn Polytechnic Alumni
Association, Inc.
333 Jay Street
Brooklyn, N.Y. 11201, USA

Thank you for informing me about the Seminar on "Earth Resources" held at the Brooklyn Law School Auditorium on June 5. I would greatly appreciate receiving the reprints of the lectures presented, if their publication is foreseen.

Kindest regards,

Giulio Natta

Oct. 14, 1968

Prof. Murray Goodman, Director
Polymer Research Institute
Dept. of Chemistry,
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201 (USA)

our ref. 429/lmv

Dear Professor Goodman:

I am very pleased that you invited dr. Giuseppe Allegra to come to Brooklyn at the Polymer Research Institute next year as a Visiting Associate Professor. I think that dr. Allegra will soundly contribute to the interesting research developed by your group.

Personally, I regret that I shall not avail myself of his help for one year. But, this experience will certainly be of fundamental importance for the scientific future of dr. Allegra.

My wife joins me in sending you and Mrs. Goodman kindest regards.

Sincerely yours,

Giulio Natta

JOHN WILEY & SONS, INC. — INTERSCIENCE PUBLISHERS
605 THIRD AVENUE, NEW YORK, N.Y. 10016 212 TN 7-9800 CABLE: JONWILE

ERIC S. PROSKAUER, VICE PRESIDENT

January 5, 1968

Dr. G. Natta
Instituto di Chimica
Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Dr. Natta:

ORGANIC SYNTHESES VIA METAL CARBONYLS, VOLUME I, edited by Drs. Irving Wender and Piero Pino, which contains your valuable contribution, has been published and your copy sent to you.

We wish to thank you for the splendid collaboration you have given to our Editorial and Manufacturing Departments during the production of the book. We are sure that this volume will be well received by its readership and that the effort which you have spent in preparing your contribution will be appreciated by the many users of the book.

We would like to take this opportunity to invite you to avail yourself of the facilities of our firm for the publication of a book of your own, should you contemplate writing one in the future.

As you know, we are engaged in publishing texts and monographs in all areas of science, and would be only too happy if the pleasant relationship we established with you while publishing your contribution for this volume could be extended to a project on a larger scale.

If you should have any plans of this nature, or any other publishing plans, we would welcome a discussion with you.

Very sincerely yours,

Eric S. Proskauer

Eric S. Proskauer

ESP/rw

P.O. Box 1069
San Antonio, Texas 78216
February 23, 1968

Dr. Giulio Natta
Institto Di Chimica Industriale Del Politecnico
Milan, Italy

Dr. Natta:

Your Rocket engines -- I've read about them in the magazine PRODUCT ENGINEERING -- sound very interesting. I would like to learn more about them and perhaps get some information that could be included in some magazine articles I am to write. Would you send me copies of any more relevant reports; photographs, drawings, diagrams; and any other descriptive materials on individual devices and on the uses to which they have been put?

Have any of these "muscles" been used in prosthetic devices (mechanical replacements for parts of the human body)? Could you refer me to documents concerning these devices?

I would like to receive news releases on any future developments made in your work or in the work of the institute. Would you please have my name added to your mailing list?

Sincerely,

Byron Enfield

OWENS-ILLINOIS
OKEMOS RESEARCH LABORATORY
RED CEDAR RESEARCH PARK OKEMOS, MICHIGAN 48864

Am

Owens - Illinois
Okemos Research Lab
2367 Science Parkway
Okemos, Michigan 48864

August 1, 1968

Prof. G. Natta
Istituto Di Chimica Industriale
Del Politechnico
Piazza Leonardo Da Vinci, 32
Milano, Italy

Copia a Zerbi

Dear Prof. Natta:

As you will note I am no longer associated with Esso Research & Engineering. I am moving into new areas with Owens-Illinois, although I will remain involved indirectly with scattering work. Enclosed is a recent preprint.

With best regards to you and Dr. Zerbi,

Sincerely,

Robert Schaufele

R. F. Schaufele
Senior Research Scientist

RFS/dkb

Zerbi

Enclosure

Not Ans
non risposta

December 26, 1968

Sir:

As a noted person I believe you have some views and ideas for young people.

If you are able to share these views and ideas with me for the benefit of my secondary school students, I would appreciate receiving a copy of them.

Also, if possible, please send an autographed picture.

Thank you.

Yours truly,

Thomas F. Schweitzer

Thomas F. Schweitzer

Thomas F. Schweitzer
89-19 218 Street,
Queens Village, L.I., N.Y., 11427
U.S.A.

Mifrasiere

42 Sixth Ave
San Francisco, Calif
94118

Feb 7, 1969

Dear Sinlio

Please accept our sincere sympathy. I did not understand at first but now I know it was Rosita who has left us.

For us she was the brightest star in Europe. I know no one who was loved so much by everyone for her kind nature, help to everyone and her gracious hospitality.

With our prayers for you and your children

Celia and Biel Shiffler

Fermo

P.O. Box 16015
San Antonio, Texas 78216
February 23, 1968

Dr. Giulio Natta
Instito Di Chimica Industriale Del Politecnico
Milan, Italy

Dr. Natta:

Your muscle engines -- I've read about them in the magazine PRODUCT ENGINEERING -- sound very interesting. I would like to learn more about them and perhaps get some information that could be included in some magazine articles I wish to write. Would you send me copies of any news releases; reports; photographs, drawings, diagrams; and any other descriptive materials on individual devices and on the uses to which they have been put?

Have any of these "muscles" been used in prosthetic devices (mechanical replacements for parts of the human body)? Could you refer me to documents concerning these devices?

I would like to receive news releases on any future developments made in your work or in the work of the institute. Would you please have my name added to your mailing list?

Sincerely,

Myron Sartain

Mr. Myron Sartain

SOCIETY FOR THE FAMILY OF MAN AWARDS CEREMONIES

Honoring

JOHN D. ROCKEFELLER 3RD

August 15, 1968

Dott. Giulio Natta
54 Via Mario Pagano
Milano, Italia

un ricevuto
Francesco
per partecipare
dopo

Dear Mr. Natta:

My letter to you of July 29 may have slipped by inadvertantly in the uncommon rush of things these days. I am taking the liberty therefore, of writing to you again because I think it is so important.

I would be so pleased if you would join with the distinguished members of the Family of Man Awards Dinner Committee to honor Mr. John D. Rockefeller 3rd for his far sighted and massive contributions to the family of man.

This unique and meaningful award, renowned around the world, has in the past gone to: President John F. Kennedy, General Dwight D. Eisenhower, President Lyndon B. Johnson, Prime Minister Lester B. Pearson, H. E. Jean Monnet.

Needless to say, the pursuit of this kind of excellence on all levels is more urgent today than ever before. Each of us should encourage and support by example how much it means. This in part is what joining the Family of Man Awards Committee will accomplish.

Please let me hear from you at your earliest convenience if you agree. A return card and envelope is enclosed.

Sincerely,

John W. Gardner

Chairman,
Family of Man Awards Committee

Wheelock H. Bingham, Chairman, The Society for the Family of Man • Suite 456, 475 Riverside Drive, New York, N. Y. 10027 • RI 9-1214

ITALCABLE

LMSO545 PA267 SYA222 SY NA466 45 INTL FR TDN BROOKLYN NY 26 915A

PROFESSOR G NATTA, 1211
POLITECNICO DIMILANO
PIAZZA LEONARDO DA VINCI 32
MILANO

TELEGRAMMA Via Italcable Via Italo Radio

1968 GEN 26 17 09

ISTITUTO DI CHIMICA INDUSTRIALE DEL POLITECNICO

ONW

SIR ROBERT ROBINSON IS NOMINATING DR MARK FOR NOBEL PRIZE 1968 HE SUGGESTED SUPPORTING LETTERS TO BE SENT TO THE SWEDISH ACALEZY WILL YOU BE SO KIND AND SEND A LETTER KINDEST REGARDS

MURRAY GOODMAN

leppels e
nicolani
di nuovo

Society for the Family of Man

January 30, 1968

Dott. Giulio Natta
54 via Mario Pagano
Milano, Italia

Dear Dott. Natta:

You may recall that I wrote you last year to ask for your recommendations of candidates for The Society for the Family of Man "Awards for Excellence".

At that time I wrote to other important citizens in more than a hundred different countries. As a result the distinguished judges committee was able to consider candidates of distinction from a wide area.

These awards, you may recall, include an especially sculptured medallion and a $5,000 grant in addition to international recognition given the accomplishments.

I am writing now to ask if you would send the names of candidates to be considered for this year's awards. For your convenience, I have enclosed a return envelope and form which I hope you will fill in and return to us at your earliest convenience.

The enclosed brochure and guidelines list the leadership associated with the Society, the award winners as well as the program and objectives of the Society.

We are most anxious that candidates include men and women representing a broad cross section of social, economic and racial backgrounds. They need not be well known, but effective in terms of the Society's format. Should one of your candidates be selected, we would be pleased to welcome you as our guest at the award ceremonies to meet them in person. Please feel free to make as many recommendations as you wish in each of the six categories our awards cover.

The judges committee will be meeting in the early part of May. I would appreciate having your recommendations returned as soon as possible -- no later than mid-March. This will enable us to prepare the basic information for the judges committee. I look forward to hearing from you.

With best wishes,

Sincerely,

Wheelock H Bingham

Wheelock H. Bingham
Chairman

Suite 456, 475 Riverside Drive, New York, N. Y. 10027

Ann

7804 Cayuga Ave.,
Bethesda, Maryland 20034
USA
Dec.17,1968

Dear Dr. Natta:

I am an American student making a collection of the autographs of winners of the Nobel prize in science I do not have yours and I would be sincerely appreciative if you could send me one or, preferable, an autographed photo of yourself.

Please forgive this intrusion. Many thanks and a Happy Christmas.

Yours truly,
Stephen J Williams
Stephen J. Williams

Resolve
4/1/69

Ave

July 29, 1969

Prof. Arthur V. Tobolsky,
Dept. of Chemistry
Princeton University
Princeton, New Jersey 08540 (USA)

Dear Professor Tobolsky,

I was sorry to learn that you injured your leg and do hope you have completely recovered by now.

Last week, I broke my right arm: now I feel well, although I cannot sign this letter.

I will be very glad to meet you when you come to Italy next time and will certainly arrange your visits to Italian establishments.

With best wishes and kind regards,

Giulio Natta

Jan. 29, 1968

Prof. Murray Goodman
Polytechnic Institute of Brooklyn
333 Jay Street,
Brooklyn 1, New York (USA)

Dear doctor Goodman:

This is in reply to your cable of Jan. 26, which reached me after I had sent my proposals for the 1968 Nobel Prize for Chemistry to the Nobel Committee.

As last year, also this year I have proposed Prof. S. Winstein, who has been nomitated by a number of colleagues, as well.

I shall be glad of another occasion to support the candidature of Prof. Mark, whom I highly esteem.

Kindest regards,

Giulio Natta

May 20, 1968

Dr.E.Weber, President
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn, New York (U.S.A.)

Dear doctor Weber:

Thank you for kindly inviting me to the annual dinner on June 12 at the University Club in Manhattan.

I regret informing you that it will be impossible for me participate in it.

Please forward my compliments upon the new honorary graduates.

Sincerely yours,

Giulio Natta

Jan. 25, 1968

Dr. Eric S. Proskauer, Vice Pres.
John Wiley & Sons, Inc.,
Interscience Publishers,
605 Third Avenue,
New York, N.Y.10016 (U.S.A.)

our ref. 25/lmv

Dear doctor Proskauer:

Thank you very much for your kind letter of Jan.5 and for the cheque you previously sent to me.
Now, I am waiting for the copy of the volume you promised.

At present I do not plan to write any book, but I will remember your kind offer if, by chance, I will do so.

With kindest regards,

Sincerely yours,

Giulio Natta

Ger

I 20133

March, 12, 1968

G.I.O
minuta
21.3.68

Mr. Myron Sartain
P.O. Box 16015
San Antonio, Texas 78216 - USA

our ref. 130/rl

Dear Mr. Sartain,

in reply to your letter of February 23, 1968, I will send you, as soon as available, a copy of our paper "Thermodynamic Examination of the Polymorphous Transition of Trans-1.4 Polybutadiene" which appeared in Rubber and Plastics Age, describing the very small capability of the trans-1.4 polybutadiene fiber to transform heat into mechanical energy; therefore it can hardly find any practical use.

Sincerely yours,

Giulio Natta

Feb.3, 1967

Dr.R.F.Schaufele,
ESSO Research & Engineering Co.,
Linden, New Jersey 07036 (U.S.A.)

Dear doctor Schaufele:

Thank you for kindly sending me the manuscript of your paper on the Lattice Vibrations of Polyethylene Crystals.

I do hope you have meanwhile received our sample of highly syndiotactic polypropylene. It was sent to you by registered surface mail on Dec. 9, 1966.

Kind regards,

Giulio Natta

CARNEGIE CORPORATION OF NEW YORK

JOHN W. GARDNER
CONSULTANT
1530 P STREET, N. W.
WASHINGTON, D. C. 20005

accetto
perché non
sia necessario
la mia presenza
in USA

June 26, 1968

Dott. Giulio Natta
54 Via Mario Pagano
Milano, Italia

Dear Sir:

Mr. John D. Rockefeller III has long been a leader in a number of important areas both here and abroad. His far seeing leadership on such major human issues as population control, improvement of world food production and education are a matter of impressive record. He has also been a leading force in creating a new art and cultural renaissance which is enriching communication and understanding between this and other countries.

These accomplishments have greatly strengthened our national life as well as contributed massively to the Family of Man as a whole. For these reasons among others Mr. Rockefeller will receive the unique Family of Man Award on October 21. The recipients before him were:

President John F. Kennedy — General Dwight D. Eisenhower
President Lyndon B. Johnson — Prime Minister Lester B. Pearson
H. E. Jean Monnet

As a member of the Society and chairman of its Awards Committee, I am writing to ask if you would join me with other distinguished members as an associate chairman of this committee. We would be pleased and grateful if you would.

For your convenience I am enclosing a return card, envelope and a brief statement about the Society. Let me know at your earliest convenience that you will join us.

Sincerely,

John W. Gardner

Chairman,
Family of Man Awards Committee

Ass.

IDEA

THE PATENT, TRADEMARK, AND COPYRIGHT RESEARCH INSTITUTE
OF THE GEORGE WASHINGTON UNIVERSITY • WASHINGTON, D.C., 20006

January 5, 1968

Mr. Giulio Natta
54 Via Mario Pagano
Milan
Italy

Dear Mr. Natta:

Mi consentirà che
il Pd. lui voglia farci
informare
25/1/68

Your cooperation is solicited on a study of international importance regarding the findings in the recent Report of the President's Commission on the United States Patent System. The enclosed questionnaire, which is being directed to foreign patentees of recently issued United States patents, relates to one of a four part Institute project seeking to illuminate the effect of certain of the major proposals made in the recent report of the President's Commission. This enclosure is based on a statistical sampling of patents issued by the United States Patent Office, and seeks to develop factual information bearing on the experience of creative people in other countries with provisions of the United States law and with provisions in the laws of their countries that are similar to recommendations in the Report of the President's Commission.

In 1965 President Johnson established a Commission to examine the United States Patent System, whose broad objective was to recommend measures to keep the system abreast of current and foreseeable needs of our society. The Commission deliberated for almost two years before presenting its findings to the President. As you may know, they found that patents play a significant role in the country's economic growth. The Commission noted a number of areas where, in their opinion, departures from current practice would be beneficial. Acceptance and enactment of some of these changes would require legislation.

The Patent, Trademark, and Copyright Research Institute is dedicated to an objective analysis of the patent system and its effects on the economy. Accordingly, this report of the Commission generated a special study by the Institute of the potential effects of those recommendations which appear to be substantial departures from current United States practice.

Formerly the Patent, Trademark and Copyright Foundation of The George Washington University

We have tried to keep the questions as simple as possible and to limit them to essential information. In view of the statistical sampling method employed, each response is important to the inquiry. If you are unable to reply to all the questions, please complete those you can (or if you do not write English, respond in the language you prefer), since it is far better to have your partial return than none at all.

We assure you that your reply will be kept in strict confidence and any publication will be in the form of combined data, unless you direct otherwise. The research will be published in IDEA, the journal of the Institute.

With best wishes,

Sincerely,

L. James Harris /asn

L. James Harris

Questionnaire enclosed

The United Educators, Inc.

TANGLEY OAKS EDUCATIONAL CENTER • LAKE BLUFF, ILLINOIS 60044 • TEL. 312 234-3700 • CABLE ADDRESS AMEDEN

ringraziamento

November 30, 1967

Dr. Giulio Natta, Director
Dept. of Industrial Chemistry
Polytechnic Institute of Milan
Milan, Italy

Dear Dr. Natta:

This year marks the sixtieth anniversary of the American Educator Encyclopedia, one of the oldest major reference works in the English language. To observe this important event in educational publishing, we have prepared a "biography" of the Educator in pictures and text to enable our esteemed contributors to join with us in the celebration.

Since its origin in 1907, the American Educator has developed to a position of leadership among curriculum-centered encyclopedias--development resulting in large part from the sharing of their knowledge by our contributors in all parts of the world, in all areas of learning. It is fitting that you, as an American Educator contributor, be included in this anniversary observance. We hope that you will enjoy reading the enclosed American Educator Sixtieth Anniversary booklet and that you will want to keep it in your library.

Very truly yours,

THE UNITED EDUCATORS, INC.

Everett Edgar Sentman
Vice President and
Editor in Chief

EES:
enclosure

Princeton University DEPARTMENT OF CHEMISTRY
PRINCETON, NEW JERSEY 08540

July 16, 1969

Professor Guilio Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci, 32
Milano, Italia

Ref. 83/lmv

Dear Professor Natta:

Thank you very much for your kind letter of July 7, and for your efforts to help me meet with your colleagues at Montecatini.

Very unfortunately I injured my leg last week while playing tennis, and on the doctor's advice I have cancelled my trip to Italy in order to continue resting my leg. I will, however, go to the conferences in Budapest and Prague and then stay for a few days in Paris. I hope to meet you or your colleagues at Budapest or Prague.

My wife and I are determined to visit Italy and hope to do so in the near future. Next time, however, we will plan our trip for June, rather than August, so that we can meet with you and other Italian scientists. Before our next trip I will once again take the liberty of asking your help in visiting some of the important scientific establishments in Italy.

My sincerest best wishes.

Very truly yours,

Arthur Tobolsky

Arthur V. Tobolsky
Professor of Chemistry

AVT:mm

int ~~2221~~ - 2215
5353 D. Locati - SNam Progetti
Dr. Giuliani avvisato

MONTECATINI EDISON S. p. A.

P.zza Turr, 3

MILANO

ISTITUTO DI CHIMICA INDUSTRIALE DEL POLITECNICO
7 LUG. 1969
83

5 LUG 1969

5 LUG 1969

7885

Gent.ma dr.a Lamma
c/o ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO

Via Leonardo da Vinci, 32

M I L A N O

Oggetto: visita del Prof. Tobolsky

Gentile Signorina,

faccio seguito alla mia telefonata odierna per informarLa che, qualora il Prof. Tobolsky sia a Venezia (Hotel Monaco et Grand Canal) dal 20 al 23 agosto p.v., noi cercheremo di mettere a disposizione del Prof. Tobolsky stesso il Prof. Gianpiero Talamini responsabile delle ricerche applicate nel campo dei polimeri presso lo Stabilimento Petrolchimico di Porto Marghera e presso l'Università di Padova.

Il giorno a noi più comodo sarebbe venerdì 23 agosto.

Con i migliori saluti.

(dr. Antonio Ferri)

Capo Servizio del DIAP/Servizio Controlli e Miglioramenti - P.zza Türr, 3
MILANO

Tel. 3885

avvisata che Tobolsky non viene —

cc. Prof. G. Talamini - DIAP/Stab.to di Porto Marghera
Via dell'Elettricità, 41 - MESTRE (Venezia)

99/42

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
4800 FORBES AVENUE
PITTSBURGH, PENNSYLVANIA 15213

Pittsburgh
Coal Research Center

December 31, 1968

Professor Guilio Natta
Instituto di Chimica Industriale del Politenico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of congratulations about the Pittsburgh Award. I very much treasure your good wishes and your letter meant a good deal to me.

Mrs. Wender joins me in wishing you and your family a joyous New Year.

We send our best regards.

Sincerely yours,

Irving

Irving Wender

Feb. 19, 1969

Dr. Bill Shiffler,
42 Sixth Ave.,
San Francisco, Calif. 94118 (USA)

Dear Bill:

My sincerest thanks to you and Celia for your heart-felt sympathies and for all your good words to me. You knew Rosita and may understand my feelings. The words of my friends are of great help to me.

Yours,

Giulio Natta

Society Family of Man

Sept. 4, 1968

The Hon. John W. Gardner, Chairm
Suite 456
475 Riverside Drive
New York, N.Y. 10027 (USA)

Dear Sir:

Thank you for your letter of Aug. 15. Your letter of July 29 has never reached me.

Although highly honored, I cannot accept your very kind invitation to participate in the Family of Man Awards Dinner Committee, due to my state of health.

Kindest regards to you and sincerest wishes for the success of your enterprise.

Sincerely,

Giulio Natta

Society Family of Man

July 5, 1968

Dinner Chairman
Suite 456
475 Riverside Drive
New York, N.Y. 10027

Dear Sir:

Thank you for your kind letter of June 26 inviting me to join you as an associate chairman of the Awards Committee.

I highly appreciate this honor although I have to inform you that, due to my state of health, I will not be able to come to the States next October.

Therefore, to my regret, I cannot accept your invitation.

Thanking you very much again, I send you kindest personal regards.

G. Natta

February 8, 1968

Mr. Wheelock H. Bingham
Chairman
Society for the Family of Man
Suite 456 - Riverside Drive
New York, N. Y. 10027 (USA)

Dear Mr. Bingham,

this is in reply to your letter of January 30.

As the moment I do not know a candidate for your awards. If I get knowledge of someone worthy of it, I will inform you.

With kindest regards,

Giulio Natta

Jan.18, 1968

Mr.Everett Edgar Sentman,
Vice President
The United Educators, Inc.,
Tangley Oaks Educational Center
Lake Bluff, Illinois 60044 (USA

our ref.33/lmv

Dear Mr. Sentman:

Thank you very much for kindly sending me the American Educator 60th Anniversary booklet. I enjoyed reading it.

Kindest regards,

Giulio Natta

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
4800 FORBES AVENUE
PITTSBURGH, PENNSYLVANIA 15213

Pittsburgh
Coal Research Center

October 17, 1968

Professor G. N. Natta
Instituto di Chimica Industriale del Politenico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Having just written to you a few weeks ago, I find myself compelled to ask another similar favor.

Dr. Irving Wender has been named recipient of the 1968 Pittsburgh Award of the Pittsburgh Section, American Chemical Society. The Award is made in recognition of distinguished service to chemistry.

As part of the Presentation on Thursday, December 5, Irving will be given a collection of congratulatory messages from his professional associates and other friends. The messages will be presented at the Award Dinner and later bound as a memento of receiving this high honor.

We would be delighted to have a personal message from you included in the volume. Please send your contribution by Monday, December 2. We would appreciate your sending your letter flat and unfolded, so that it can be properly bound.

Sincerely yours,

Heinz W. Sternberg

Heinz W. Sternberg

P.S. Please send the letter to me at the above address, since we do not wish Dr. Wender to see the letters in advance.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
4800 FORBES AVENUE
PITTSBURGH, PENNSYLVANIA 15213

Pittsburgh
Coal Research Center

October 7, 1968

Professor G. N. Natta
Instituto di Chimica Industriale del Politenico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

The Director of the Bureau of Mines has established an award for excellence in scientific accomplishments to consist of a plaque and $1,000. I am nominating Dr. Irving Wender for this award and should appreciate it very much if you would send me a statement regarding Dr. Wender's accomplishments in homogeneous catalysis by transition metal complexes and the elucidation of the mechanism of the Fischer-Tropsch synthesis based on metal carbonyl chemistry. He has also done fundamental work on the nature of the oxo-reaction.

This statement will be attached to the nomination. The closing date for submitting the nomination is October 28, 1968.

Sincerely yours,

Heinz W. Sternberg

Heinz W. Sternberg

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
4800 FORBES AVENUE
PITTSBURGH, PENNSYLVANIA 15213

Am Wender

Pittsburgh
Coal Research Center

November 6, 1968

Professor G. N. Natta
Instituto di Chimica Industriale del Politenico
Piazza Leonardo da Vinci, 32
Milano, Italy

Dear Professor Natta:

Thank you so much for your generous response to my request for seconding Dr. Wender's nomination for the K. K. Kelly Award of the Bureau of Mines. I appreciate your taking the time to state so convincingly his qualifications for receiving this award for excellence in scientific accomplishments.

Sincerely yours,

Heinz W. Sternberg

Heinz W. Sternberg

BROOKLYN POLYTECHNIC ALUMNI ASSOCIATION, INC.

333 Jay Street, Brooklyn, New York 11201 *Telephone: 212-643-2060*

July 1, 1968

Mr. Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonard Da Vinci 32, Milano

Dear Mr. Natta:

I am sorry to inform you that no prints are available, at present, on the "Earth Resources" Seminar held on June 5th. To the best of my knowledge, none are planned in the future. However, should there be a change, we shall make certain you receive copies.

Yours truly,

P. A. Zimmermann
Administrative Assistant

PAZ/vh

July 7,1969

Prof. Arthur V. Tobolsky,
Frick Chemical Lab.,
Princeton University,
Dept. of Chemistry,
Princeton, New Jersey 08540, U.S.A.

our ref. 83/lmv

Dear Professor Tobolsky,

Since your last letter of March 17, I have not received any news from you concerning your visit to Milan. As I wrote to you on March 28, we would be extremely glad to meet you after the Prague Conference. I'd like it very much to know whether that period is convenient to you.

Montecatini informed me to-day that, if you are in Venice from Aug. 20 to 23, they will be glad to show you their laboratories at Porto Marghera, possibly on Aug. 23, Friday. In particular, you will meet Prof. G. Talamini, responsible for applied research in the field of polymers. His address is:

Prof. G. Talamini
DIAP/Stab.to di Porto Marghera
Via dell'Elettricità, 41
MESTRE (Venezia)

Looking forward to hearing from you, I send you my kindest personal regards.

Giulio Natta

March 28, 1969

Prof. Arthur V. Tobolsky
Frick Chemical Laboratory
Princeton University
Department of Chemistry
Princeton, New Jersey 08540 , USA

Dear Professor Tobolsky,

Thank you for your letter of March 17 and for the kind words you wrote about Dr. Locati.

As to your visit to Italy next Summer, I regret to tell you that my Institute will be closed for Summer holidays during the whole month of August. If you can postpone your visit to Milan after the Prague Conference, I shall be very glad to meet you.

I wrote to Prof. Porri of the Institute of Industrial Organic Chemistry of Pisa University and Montecatini to enquire about the possibility of arranging your visit in their Laboratories. They will directly write to you on this regards.

My best wishes and personal regards,

Sincerely yours,

Giulio Natta

AIR MAIL

PRINCETON UNIVERSITY
DEPARTMENT OF CHEMISTRY
PRINCETON, NEW JERSEY 08540

Frick Chemical Laboratory

March 17, 1969

68

Professor G. Natta
Istituto di Chimica Industriale
del Politecnico
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

Thank you for your letter of recommendation for Dr. J. Kolarik. It appears to me that I will offer him a position commencing October 1, 1970. My funds for the next academic year are already committed.

I enjoyed having Dr. Locati with me during the past year. He is a very pleasant person and works with great energy and competence.

May I ask a favor from you? I will be visiting Europe, especially Italy, during the period of August 12-September 12. I am enclosing my schedule. I know that the month of August is an inconvenient time for visitors. Nevertheless I hope that I can visit at the Institute at Pisa and Milan, and the laboratories at Montecatini in Venice. Would you be so kind as to write a letter for me to suitable people at these places? I will be extremely honored to have the opportunity to see these outstanding laboratories. Regretfully, I have no knowledge of Italian.

My best wishes and personal regards.

Very truly yours,

Arthur Tobolsky

Arthur V. Tobolsky
Professor of Chemistry

AVT:m

Enclosure

27.3.1969

Chiar.mo Prof. Lido Porri
Istituto di Chimica Organica
Industriale dell'Università
Viale Risorgimento 35
56100 PISA

Caro Porri,

Le invio copia di una lettera del Prof. Tobolsky, nella quale esprime il desiderio di visitare gli Istituti di Pisa e Milano in Agosto. Penso che per noi sarà forse impossibile accontentarlo, a meno che non rimandi la sua venuta a Settembre e risponderemo in questo senso. Le sarei molto grato se potesse scrivergli in merito alla visita a Pisa.

Molti cordiali saluti.

Giulio Natta

All/

November 6, 1968

Dr. Irving Wender
U.S. Dept. of the Interior
Pittsburgh

Dear Doctor Wender,

I am mostly delighted to hear that you have been named recipient of the 1968 Pittsburgh Award of the Pittsburgh Section, American Chemical Society.

Accept my heartiest congratulations on this well deserved honor, in recognition of your outstanding contribution to the progress of science.

With best wishes and kindest regards,

Giulio Natta

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI, 32 - MILANO

copia da archivio

MILANO, Oct. 15, 1968

TELEF. 292.125 - 292.126
292.105 - 106 - 107

Dr. Heinz W. Sternberg
Coal Research Center
United States Dept. of the Interior
Bureau of Mines
4800 Forbes Avenue
Pittsburgh, Pennsylvania 15213 (U.S.A.)

our ref. 432/lmv

Dear doctor Sternberg:

With regard to your letter of Oct. 7, I am glad to enclose a statement concerning my appreciation of the scientific activity of dr. Wender in the field of carbon monoxide chemistry.

With best regards,

Giulio Natta

Encl/

Oct. 15, 1968

To whom it may concern

I became acquainted with dr. I. Wender's research when working in the field of carbon monoxide chemistry and, in particular, of hydro formylation.
Since 1950 dr. Wender has given outstanding contributions to the know ledge of the catalytic activity of metal carbonyls and metal carbonyl hydrides and to the elucidation of the mechanism of the hydroformyla tion and related reactions.
Because of this work, dr. Wender may be considered a pioneer in the field of homogeneous catalysis, by transition metals of the 8th group of the periodic system: he opened the way to the to-day rapid progress in the field.
Furthermore, the knowledges acquired during his investigations on organic reactions catalysed by metal carbonyls enabled dr. Wender to give very important contributions to the understanding of the mechanism of the Fischer and Tropsch synthesis of hydrocarbons.
In the above research as well as in other research in related field, I have highly appreciated the originality of his theoretical approach and particularly his unusual skillness in planning the experimental work.
I believe that dr. Wender may be now considered as one of the most outstanding experts in the field of homogeneous catalysis and in parti= cular of the reactions involving carbon monoxide.

Giulio Natta

USA

1969

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

LABORATORY OF CHEMICAL BIODYNAMICS BERKELEY, CALIFORNIA 94720

August 28, 1969

AIR MAIL

Dr. Giulio Natta, Director
Istituto di Chimica Industriale del Politecnico
Piazza Leonardo da Vinci 32
Milan, ITALY

My dear Professor Natta:

It has been almost a month now since Paolo Ferruti has left us, and I have just only returned to the office with the time to write to you and tell you what an excellent job he did during his short stay with us. We regret that the stay was so short and that he had to return so early.

During the time he was here, Paolo collaborated with very many people in the laboratory and did a considerable amount of synthetic work, both of certain kinds of tracer molecules (radicals, polyradicals) as well as certain kinds of polymers made with the radical. It would appear that there will be at least seven publications resulting from the short period of Paolo's stay with us. Some of these have already been published, or submitted, and others are in preparation. The list is as follows:

1. P. Ferruti, D. Gill, M. A. Harpold and M. P. Klein. ESR of Spin-Labeled Nematogenlike Probes Dissolved in Nematic Liquid Crystals. J. Chem. Phys. 50, 4545 (1969).

2. M. Calvin, H. H. Wang, G. Entine, D. Gill, P. Ferruti, M. A. Harpold and M. P. Klein. Biradical Spin Labels for Nerve Membranes. Proc. Nat. Acad. Sci. 63, 1 (1969).

3. P. Ferruti, D. Gill, M. P. Klein and M. Calvin. Pairwise Spin Exchange as an Indicator of Conformation in Three Bi-electrolyte Biradical Molecules. pH Dependence of the ESR Spectra. Submitted to J. Am. Chem. Soc. 8/16/69.

4. G. Havach, P. Ferruti, D. Gill and M. P. Klein. Non-Unique Ordering of Solute Molecules in Nematic Solvents: ESR Observation of Coexisting Modes of Solute Alignment. Submitted to J. Am. Chem. Soc. 8/22/69.

5. P. Ferruti, M. Calvin, D. Gill, M. P. Klein, G. Entine and H. H. Wang. Paper on preparation of radicals and sample spectra of a variety of media. For publication in J. Chem. Soc.

6. P. Ferruti and D. Gill. Paper on Polylysine and Polytyrosine labeled with nitroxyl radicals.

7. D. Gill, P. Ferruti and M. Calvin. Paper on ESR of variety of radicals in liquid crystals made from aqueous solutions of 9-polyphenanthrene sulfonic acid.

If by any chance it would be possible for Paolo to return for another year or two, we would be very pleased indeed to have him and would undertake his full support.

Best personal regards,

Greetings and very truly yours,

Melvin Calvin

Melvin Calvin
Director

MC:mt

Dear Professor Calvin,

La ringrazio per la Sua lettera del 28 agosto con la quale Lei mi parla del lavoro svolto dal Dr. Paolo Ferruti durante il suo soggiorno presso il Suo Istituto.

Anche Ferruti mi ha parlato delle ricerche a cui ha collaborato sotto la Sua direzione e si è dimostrato entusiasta della ospitalità avuta.

Non so se Ferruti potrà ritornare per un lungo periodo di tempo a Berkeley, come Lei gentilmente propone. In realtà, nonostante la soddisfazione per la sua esperienza negli U.S., Ferruti ha molti doveri piuttosto pesanti in questo Istituto; tuttavia, qualora si presentassero delle occasioni di collaborazione, La prego di dirlo a Ferruti, che sarà lieto di poter essere ancora utile alle ricerche del Suo Gruppo.

Con i miei migliori personali riguardi, sinceramente Suo

G.Natta

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY · DAVIS · IRVINE · LOS ANGELES · RIVERSIDE · SAN DIEGO · SAN FRANCISCO SANTA BARBARA · SANTA CRUZ

A Tribute to the People of California

DEPARTMENT OF CHEMISTRY
LOS ANGELES, CALIFORNIA 90024

405 Hilgard Ave.

January 10, 1969

Professor Dr. Guilio Natta
Institute di Chimica Industriale del Politechnico
Piazza Leonardo da Vinci
Milano, Italy

Dear Professor Natta:

Nobel Laureate Willard Libby and I are renewing our nomination of Professor S. Winstein for the Nobel Prize in Chemistry. Enclosed is a copy of Willard Libby's letter of nomination and a supplement bringing Winstein's bibliography up-to-date.

In our opinion, the case for Winstein is very strong, and the chances that he will receive the Chemistry Prize this year should be quite good. His work on neighboring groups and reaction mechanisms has profoundly affected every branch of the science, and yet no one in physical organic chemistry has yet been recognized by the Nobel Prize Chemistry Committee.

I know that your opinion is of great value to the Nobel Committee for Chemistry. Therefore, I wonder if you would care to support our nomination of Winstein again this year by writing the Nobel Committee for Chemistry, Sturegatan 14, Stockholm Ö, Sweden, before the end of January, 1969.

Cordially yours,

D. J. Cram

D. J. Cram
Professor of Chemistry

DJC/rb
Enclosures

DIAMOND SHAMROCK CHEMICAL COMPANY

A Unit of Diamond Shamrock Corporation

NOPCO CHEMICAL DIVISION
60 PARK PLACE
NEWARK, NEW JERSEY 07101
TELEPHONE: 201-484-8400

Fin

Damasio

May 1, 1969

G. M. O

Pegorano ?

non interessa

Prof. Giulio Natta

Dept. of Chemistry

Politechnico, Milan

ITALY

Dear Prof. Natta:

I have been given the responsibility to organize a symposium on "Polymers at Interfaces" to be held at the 160th Nat. ACS meeting in Chicago, Ill., September 1970. The symposium will be sponsored jointly by the Division of Colloid and Surface Chemistry, Division of Polymer Chemistry and Division of Organic Coatings and Plastics Chemistry. The symposium has been tentatively subdivided into the following types of topics:

I. Theoretical Contributions
II. Experimental Contributions

A. Monolayers
B. Adsorption from Aqueous Media (3 Interfaces)
C. Adsorption from Nonaqueous Media (3 Interfaces)
D. Polymer Melts and Liquids

I am, herewith, extending an invitation to you to participate in the symposium on "Polymers at Interfaces". Your acceptance of this invitation would contribute sutstantially to the success of the program. At the present time I should appreciate receiving a statement of your intention to participate with a title and informal description of the work. In addition participants will be required to meet the following schedule:

4 copies of a 200-word abstract and 3 copies of paper by June 6, 1970 to be preprinted both by the Division of Polymer Chemistry and Division of Organic Coatings and Plastics Chemistry in their respective booklets. It is the policy of these two divisions to cooperate in the handling of the manuscripts. Arrangements have also been made to publish the proceedings of the symposium in one volume of the Journal of Polymer Science - Part C. Authors will be given the necessary time required after the symposium to place the preprints into final form for publication.

Hoping that your answer will be affirmative.

Cordially yours,

Martin Schick

Martin Schick
Symposium Chairman

Jacques Habib

J. Habib
Country Club Towers
100 Hepburn Road, 10-E
Clifton, N. J. 07012

Am
Habib

10 Marzo 1969

Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico di Milano
Piazza Leonardo da Vinci 32,
Milano, Italia

Vs.Rif. N. 29/rl

Egregio Professor Natta,

La presente é per ringraziarla sinceramente per la sollecitudine mostratami.

I miei ringraziamenti vanno pure al Dr. Ing. Soldano ed alla signorina Rossana Lamma.

Distinti saluti,

J. Habib

Egr.
Dr.Ing. Giuseppe Allegra
Polytechnic Institute of Brooklyn
Department of Chemistry
333 Jay Street
Brooklyn, New York 11201, USA

Caro Allegra,

La ringrazio della Sua lettera del 14 u.s. con le notizie sulla sua permanenza americana e sul suo lavoro. Sono lieto che Lei si trovi bene e Le auguro che il lavoro prosegua con sua piena soddisfazione. Mi farà piacere se mi terrà informato di tutto.

Con molti auguri per Lei e famiglia, Le invio molti cordiali saluti.

Giulio Natta

Sept. 10, 1969

Prof. Melvin Calvin, Director
Laboratory of Chemical Biodynamics
University of California
Berkeley, California 94720 (U.S.A.)

our ref. 98/lmv

Dear Professor Calvin:

Thank you for your letter of Aug. 28 informing me of the work developed by dr. Paolo Ferruti during his stay in your Institute.

He too has talked to me of the research he co-operated to under your direction and is truly enthusiastic about the hospitality he received.

I do not know whether Ferruti will be able to return to Berkeley for one year or two as you kindly propose. Actually, although he is very happy of his experience in the States, he has rather heavy duties in this Institute. In any case, if some opportunities of co-operation arise, please contact Ferruti, who will be very pleased to be of some help to the research of your team.

With kindest personal regards,

Sincerely yours,

Giulio Natta

Feb. 3, 1969

Prof. D. J. Cram
Dept. of Chemistry
University of California
405 Hilgard Ave.,
Los Angeles, California 90024

our ref. 19/lmv

Dear Professor Cram:

Only now, on my return to Milan after a period of rest, I see your letter of Jan. 10. Therefore, to my regret, I am too late to support the nomination of Prof. S. Winstein, although I highly appreciate his scientific activity.

With my best regards.

Giulio Natta

POLYTECHNIC INSTITUTE of BROOKLYN
333 JAY STREET • BROOKLYN, NEW YORK 11201

DEPARTMENT OF CHEMISTRY

Brooklyn, 14 Febbraio 1969

Caro professore,

mi scusi se non Le ho scritto prima, come avrei desiderato soprattutto a causa delle molte cose da fare che mi sono trovato, i primi tempi dopo il mio arrivo qui. Io mi trovo bene, e sono contento della mia sistemazione; ho un laboratorio efficente, due bravi ragazzi che lavorano con me (Pedone e Benedetti, due assistenti di Corradini), e ho trovato qui un ambiente molto simpatico e incoraggiante; soprattutto il prof. Goodman è molto gentile ed amichevole con me. Peccato che il dott. Fumisi, che qualche tempo prima della mia partenza da Milano aveva manifestato il desiderio di venire qui alcuni mesi con me, ora sembri molto titubante. Sto lavorando su alcune strutture di composti organici che interessano sia Corradini che me, applicando su di esse il mio metodo di determinazione diretta delle fasi; inoltre sto studiando per alcuni ~~[illegible]~~ lavori teorici che ho in mente. Mi tengo in contatto epistolare abbastanza frequente con Fumisi, Colombo e Locchi, e mi sembra che tutto proceda abbastanza bene anche a Milano.

Spero che la sua salute sia buona, e che pertanto le sia sempre possibile venire tutti i giorni in Istituto, dato che qui lei è tanto utile e trova tanti motivi di interesse.

Il professor Goodman e il prof. Morawetz le inviano i saluti cordiali. Le' ringrazio gli auguri più belli, di vero cuore, e La saluto con affetto. Suo

Giuseppe Allegra

tel 9303494
sentire
Goldano

Jacques Habib

J. Habib
Country Club Towers
100 Hepburn Road, 10-E
Clifton, N. J. 07012

22 Gennaio, 1969

Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico di Milano
Milano, Italia

Egregio Professor Natta,

facendo seguito alla mia lettera del 23 Novembre 1968 le accludo le altre due lettere di Referenze Accademiche: una per il Massachusetts Institute of Technology ed una per la Cornell University.

La prego voler completarle con le Sue referenze ed inviarle direttamente alle rispettive Università.

Spero che nel frattempo avrà avuto modo di mandare le precedenti lettere, per cui la ringrazio.

Le faccio i miei migliori auguri per il 1969,

distinti saluti,

J. Habib

Inp. Boldrini
con preghiera di
qualche
elemento
per la risposta
Ringrazio

Jacques Habib

J. Habib
Country Club Towers
100 Hepburn Road, 10-E
Clifton, N. J. 07012

23 Novembre 1968

Prof. Giulio Natta
Istituto di Chimica Industriale
Politecnico di Milano
Milano, Italia.

Egregio Professore Natta,

Nel 1950, 51 e 52 io fui uno dei suoi allievi al Politecnico e nel 1952 feci per lei delle ricerche sul Succinato di Diallil nel Laboratorio dell'Istituto.

Ricordo che in quel periodo Pierluigi Gadina ed Armando Morpurgo pure fecero ricerche all'Istituto.
Le scrivo perché intendo prendere dei corsi in alcune Università americane e mi occorrono delle referenze accademiche su formulari mandatemi dalle Università.

Le sarei estremamente grato se vorrà gentilmente rispondere alle domende dei formulari che, una volta riempiti vanno spediti direttamente alle Università, e non a me, (altrimenti vanno squalificati).

Parecchio tempo é passato dal 1952 e se dovesse avere difficoltà a ricordarsi di me dopo tanti anni, forse in Gadina o il Morpurgo potrebbero aiutarla.

Uno dei formulari non mi é ancora arrivato e glielo manderò in seguito appena ricevuto, probabilmente in Gennaio dato che sarò assente dagli Stati Uniti durante il mese di Dicembre.

Colgo l'occasione di questa lettera per esprimerle la mia ammirazione per il Premio Nobel che le é stato conferito. Nei paesi anglosassoni in cui ho lavorato, il Politecnico di Milano é praticamente ignoto e mi é stato quindi di gran vantaggio il poter affermare che studiai sotto un premio Nobel.

Distintamente la saluto

J. Habib

JOHN WILEY & SONS, INC. — INTERSCIENCE PUBLISHERS
605 THIRD AVENUE, NEW YORK, N.Y. 10016 212 TN 7-9800 CABLE: JONWILE

ERIC S. PROSKAUER, VICE PRESIDENT

July 1, 1969.

TO THE MEMBERS OF THE EDITORIAL AND ADVISORY BOARDS
OF THE JOURNAL OF POLYMER SCIENCE

Gentlemen:-

The Editors of the JOURNAL OF POLYMER SCIENCE and we take pleasure in inviting you to attend a luncheon to be held during the meeting of the American Chemical Society on

September 9, 1969
12:00 P.M.

at

The Surrey Room
Hotel Warwick
Avenue of the Americas at 54th Street
New York City.

The luncheon will be followed by a discussion on editorial matters.

Would you be kind enough to indicate on the lower portion of this invitation whether you will be able to attend the luncheon and meeting.

no
4/8/69

Very sincerely yours,

Eric S. Proskauer

UNIVERSITY OF FLORIDA
GAINESVILLE, FLORIDA 32601

QUANTUM THEORY PROJECT
NUCLEAR SCIENCES BUILDING

January 3, 1969

Chiamare
Ferbi

Professor G. Natta, Nobel Laurate
Institute of Technology
Milano, Italy

Dear Professor Natta:

In the development of science there are certain individuals who are the essential pioneers and make the fundamental decisions and contributions leading to the opening of new fields and new vistas.

Professor John C. Slater has been one of the great pioneers in the development of quantum theory of matter, and particularly his discovery of the "Slater Determinant" and the general exchange phenomenon has been of fundamental importance in formulating the independent-particle molecule in the theory of atoms, molecules and solid state as well as in the theory of nuclei. His work on the theory of atomic spectra has led to a fundamental understanding of this important field. Professor Slater's work on the nature of the covalent bond was one of the fundamental contributions to quantum chemistry, and he should be considered as one of the founders of this link between chemistry and physics. He is still scientifically very active and he has recently made outstanding contributions concerning the calculations of band structure of solids.

In 1966, Professor Slater's students and colleagues decided to write a book dedicated to him on his birthday in honor of his outstanding contributions to the quantum theory of matter. This book called "Quantum Theory of Atoms, Molecules and Solid-State" was published by Academic Press, and it contains 641 pages written by about 80 contributors. In his paper, Professor Leland Allen of Princeton University wrote the following statement as to Professor Slater's work: "There is no question that Slater's influence on the course of science will be even greater during the next thirty-five years than it has been in the past thirty-five." This statement has also been quoted by Physics Today in the review of the book.

The organizing committee of the International Symposium on "Atomic, Molecular and Solid-State Theory" arranged on Sanibel Island, Florida, by the University of Florida in collaboration with the University of Uppsala in Sweden suggested that the 1967 Symposium should be held in honor of John C. Slater in consideration of his outstanding contributions to the Quantum Sciences. This idea was greeted with enthusiasm by scientists from all over the world, and more than 250 specialists gathered at Sanibel Island for the Slater Symposium in January, 1967. The Proceedings of this

Symposium, containing about 800 pages, was published as a special volume of the INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY by the Interscience Division of John Wiley and Sons. From this volume it is also evident what enormous impact Professor Slater's work has had on Chemistry and Physics and the importance of this work in the future.

With this letter I am respectfully calling your attention to the importance of Professor Slater's work and particularly to the discovery of the Slater Determinant and the general exchange phenomena.

I realize that you must be familiar with at least part of Professor Slater's work, but in case you should be interested in obtaining the volume, "Quantum Theory of Atoms, Molecules and Solid-State dedicated to Professor John C. Slater" or the Proceedings of the Slater Symposium" for your personal library, I would be most happy if you would let me know, and I will try to request a complimentary copy for you from the publishers, since I am the editor of both these publications.

Yours sincerely,

Per-Olov Löwdin
Graduate Research Professor
of Chemistry and Physics
Quantum Theory Project
Nuclear Science Building
University of Florida
Gainesville, Florida 32601

Professor and Head
Department of Quantum Chemistry
P. O. Box 518
University of Uppsala
75120 Uppsala, Sweden

Aur.

Route 3 Box 177
Floyd, Virginia
24091
United States of America

Prof. Giulio Natta
c/o Politecnico di Milano
Piazza Leonardo da Vinci
Milano, Italy

Sir

would you please autograph the three enclosed covers for my collection honoring those who have won the Nobel Prize in Chemistry. two have already autographed.

your kindness will be deeply appreciated.

A return envelope is enclosed.

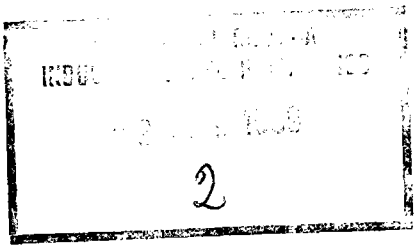
Yours truly

Mrs. Florence Muncy

ricevuta
22/8/69

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF MICHIGAN • ANN ARBOR, MICHIGAN



December 27, 1968

Professor G. Natta
Politicnico de Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

It has come to my attention that you might consider nominating Professor Herman Mark for a Nobel award in Chemistry. I understand that a considerable amount of information has been sent to you. I am fully aware that you are probably beseiged by many friends to nominate scientists for this outstanding award and that it is not possible for you to nominate more than several candidates. I should like to urge you however, to consider Professor Mark. You have known him longer than I and are much more aware of his vast contributions to the literature and background of macromolecular chemistry than most people. In the event that you do decide to nominate him, I should be happy to help you obtain supporting letters from the States.

I hope to see you one of these days. My best regards to your charming wife. With kindest regards.

Sincerely,

Charles

Charles G. Overberger
Chairman

CGO/ml

Ann

DEPARTMENT OF CHEMISTRY

THE UNIVERSITY OF MICHIGAN • ANN ARBOR, MICHIGAN

(10/10/68)

copia a Damisso

October 3, 1968

Professor G. Natta
Politicnico de Milano
Piazza Leonardo da Vinci 32
Milano, Italy

Dear Professor Natta:

I am writing to tell you about a visitor from the University of Catania, Dr. Giorgio Montaudo, who has spent two years with me in the States as a postdoctoral fellow. He is associated with the department of Professor Passerini as a lecturer. I rarely have seen an individual who can learn faster and who has more drive, determination, and creativity than Montaudo. I first assigned him to a somewhat difficult problem which he solved in a relatively short time, a structure problem. The manuscript which describes this work is in press and is entitled "Synthesis, Reactivity and Polymerization of Vinylureas." He then began work on the measurements of the optical rotatory dispersion and circular dichroism of some rigid chain polyamides and polyesters that we had synthesized. As a result we have submitted four manuscripts entitled "Optical Rotatory Properties and Conformational Rigidity of Cyclic Dicarboxylic Acids," "Optical Rotatory Properties of Cyclic Compounds Related to Diketopiperazines," "Optical Rotatory Properties of Stereoregular Asymmetric Polyamids," and "Optical Rotatory Properties of Some Stereoregular Polyamides Derived From 1,3-trans-Cyclohexanedicarboxylic Acid" for publication.

He lectures well and undoubtedly is a good teacher. I think at all costs you should try to keep him on the Italian scene and support him in every way possible when he returns to Catania. I am very much impressed with this man.

With kindest regards.

Sincerely,

Charles

Charles G. Overberger
Chairman

CGO/ml

BROOKLYN POLYTECHNIC ALUMNI ASSOCIATION, INC.

333 Jay Street, Brooklyn, New York 11201 *Telephone: 212-643-2060*

March 5, 1969

Dear Classmate:

It's hard to believe, but this coming June it will be five years since we graduated from Poly. The disturbing thing is that we have not been together since commencement, and I think that it is about time we remedied this situation.

This March 15th the Alumni Association is holding its annual dinner-dance, and it seems that this would be an ideal occasion for a good old-fashioned college reunion with all the trimmin's. You know -- find out what the guys are doing these days, reminisce about old times, show pictures of the family, get plastered -- or, in other words, have a blast.

Anyway, the dinner-dance is going to be held at the Astorian Manor, and it promises to be great -- for the first time, it has been planned for us younger guys. All of the speeches and stuffy regimen are to be compressed to under fifteen minutes (total!). But, let me not dwell on details; you can read all about them in the brochure that was sent to you.

I know I am not giving you much advance notice for this reunion, but the snow has really messed up my schedule. However, if it is at all possible, I hope that you can still find the time to join us at the banquet. If you need any more information you can reach me by phone at (212) 643-3343 (business) or (212) 338-3875 (home).

Regards,

Joe Flaherty

Joe Flaherty, A.E. '64

JF/vh

P.S. When you send in your reservation make sure to specify that you want to be seated with the class of '64.

Alm

BROOKLYN POLYTECHNIC ALUMNI ASSOCIATION, INC.

333 Jay Street, Brooklyn, New York 11201 *Telephone: 212-643-2060*

January 2, 1969

Dear Fellow Alumnus:

The Class Organization Program of our Alumni Association is on the move! Classmates working together on class committees are building a stronger Polytechnic and enjoying themselves while doing it.

Those of us who graduated during the 1960's are an important part of this program. Thus, we are inviting all class chairmen, class committee members, and all other interested 1960-68 graduates to join with us for a class organization conference on Thursday evening, January 30, 1969, at 6:00 p.m. Dinner will be served in the Alumni-Faculty Lounge.

While it is always difficult to find a convenient date for all members of any busy group, we anticipate that this date will be clear for most of us and each class in our decade will have good representation. Some of you, of course, are living too far away to attend, but we wanted you to be informed nevertheless.

Return the enclosed card as soon as you can, come join us, share in some good fellowship, and help to support our programs on behalf of our own continuing education, the students, and the Institute.

Sincerely,

Phil Heckhaus

Philip L. Heckhaus '62
Decade Chairman

PLH/vh
Enclosure: Reply Card

Ann

July 10, 1969

Professor G. Natta
Direttore dell Istituto di Chimica
Industriale del
Politecnico di Milano
Piazza Leonardo da Vinci 32
Milano, Italy

My dear Professor Natta:

Thank you so very much for your kind note of June 26, 1969. We were all very pleased by your recent visit and I cannot tell you how happy we all have been to see the almost incredible improvement in your condition. It was also a great pleasure for me to meet your son, and I hope that we shall you again in the not too distant future.

With all our best wishes for your continued improvement, and with my warmest personal regards, I am,

Very sincerely yours,

H. Mark

H. Mark

HM:gf

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY
STATE UNIVERSITY POLYMER RESEARCH CENTER
SYRACUSE, NEW YORK 13210 M. SZWARC, F.R.S., DIRECTOR

24 January 1969

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano
Italy

Dear Professor Natta,

It was a great shock to learn of the death of Mrs. Natta. Please accept my sincere sympathy.

Yours very sincerely,

Michael Szwarc

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY

STATE UNIVERSITY POLYMER RESEARCH CENTER

SYRACUSE, NEW YORK 13210 M. SZWARC, F.R.S., DIRECTOR

13 September 1968

Professor H. Mark
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201

Dear Professor Mark:

Thank you very much for your letter of recommendation along with all of the material you sent on behalf of Dr. Nino Oddo. I will see whether it will be possible for me to accommodate him.

With best regards,

Sincerely yours,

Michael Szwarc

cc: Professor Natta

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY
SYRACUSE, NEW YORK 13210

3 August 1967

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano
Italy

Dear Professor Natta:

Some time ago I wrote to you about the United States-Italy Cooperative Science Program. Unfortunately, I have not yet received your reply.

I am sending now this additional information (attached herewith) and would be most interested to know your reaction about the proposal.

Looking forward to hearing from you, and with best personal regards,

Yours very sincerely,

Michael Szwarc
Director, State University
Polymer Research Center

NATIONAL SCIENCE FOUNDATION

WASHINGTON, D.C. 20550

August 1, 1967

Dr. Michael Szwarc
Director, Polymer Research Center
State University College of Forestry
Syracuse University
Syracuse, New York 13210

Dear Dr. Szwarc:

Thank you very much for your letter of July 24 to Dr. Haworth which has come to me for reply. We very much appreciate your interest in the U.S.-Italy Cooperative Science Program and are pleased to note that your prospective Italian counterparts are agreeable to the development of a cooperative project.

Enclosed is a set of procedural guidelines designed to aid American scientists prepare proposals for inclusion in the Program. Also enclosed is a booklet entitled "Grants for Scientific Research," if you decide to apply to NSF for financial support. Decisions on funding such proposals are in competition with the Foundation's regular research grant applications.

If we can be of further assistance, please let us know. We look forward to hearing from you soon.

Sincerely yours,

Arthur Roe

Arthur Roe, Head
Office of International
Science Activities

Enclosures (2)

NATIONAL SCIENCE FOUNDATION
U.S.-ITALY PROGRAM
PROCEDURAL GUIDELINES

The National Science Foundation is the Executive Agency responsible for carrying out the terms of the U.S.-Italy Agreement in the United States. U.S. investigators should follow the procedures outlined below to submit proposals for inclusion in the Program. Proposals for cooperative research are to be developed directly between the cooperating laboratories in the U.S. and in Italy and should contain a description in some detail of both the U.S. and the Italian work and the respective budgets.

1. If U.S. Government financial support is being sought by U.S. investigators, their proposals are to be submitted to the appropriate agency for funding, following its normal procedures for submitting such proposals. A copy of this proposal is to be sent to the National Science Foundation.

2. If U.S. Government financial support is already available through on-going programs and a portion of the on-going program is to be made a part of the U.S.-Italy Program, proposals containing a description of the cooperative arrangements (including a budget statement) should be submitted to the funding agency and to the National Science Foundation.

3. If a proposal is approved, the U.S. Government funding agency (and the U.S. Government implementing agency where the research is to be carried out, if other than the funding agency) will send a letter to the National Science Foundation approving inclusion of the proposed project under the U.S.-Italy Program. The International Office of the funding and/or implementing agency will ordinarily be the point of contact with NSF.

4. Once a project is established as part of the U.S.-Italy Program, the U.S. Government implementing and/or funding agencies shall administer the projects in accordance with their normal procedures, augmented by such reports as may be required by the National Science Foundation.

5. The Italian investigator should submit proposals to the Consiglio Nazionale delle Ricerche, the Executive Agency responsible for carrying out the terms of the Agreement in Italy.

6. Once the NSF has given final approval for a proposal to be included in the Program, an exchange of letters between the NSF and the CNR will constitute formal approval for inclusion of a joint proposal in the U.S.-Italy Program.

Further information can be obtained from the Office of International Science Activities, National Science Foundation, 1800 G Street, N.W., Washington, D. C. 20550. (Dr. Robert Fleischer, Deputy Head and Program Coordinator, Telephone: Government code 183-38023 or 343-8023)

4/11/67

28.2.1969

Dr.
Ing. Jacques Habib
Country Club Towers
100 Hepburn Road, 10-E
Clifton, N.J. 07012, U.S.A.

ns.rif.N. 28/rl

Egregio Ingegnere,

con riferimento alle Sue lettere del 23.11.1968 e del 22.1.1969, dirette al Prof. Natta, desidero informarLa che il professore ha compilato, con l'aiuto dell'Ing. Soldano, i formulari da Lei inviati che sono stati poi trasmessi direttamente alle varie Università.

Il Professor Natta La ringrazia per i Suoi auguri che ricambia vivissimi per il Suo lavoro.

Distinti saluti.

R. Lamma (segretaria)

Feb. 18, 1969

Prof. Per-Olov Löwdin
Quantum Theory Project
Nuclear Science Building
University of Florida
Gainesville, Florida 32601 (U.S.A.)

our ref. 15/lmv

Dear Professor Löwdin:

I apologize for my delay in answering your letter of Jan. 3, with which you evidence the work of Prof. John Slater in the field of quantum theory of matter.

I think too that the contributions of John Slater to the fundamental problems of the physics of the solid state and of quantum theory are of outstanding importance.

Thank you very much for offering me one complimentary copy of his works, but I have already got the volume in my library.

With kindest personal regards,

Giulio Natta

Ann

FeB.3, 1969

Prof. Charles G. Overberger, Chairma
Dept. of Chemistry
The University of Michigan
Ann Arbor, Michigan (U.S.A.)

our ref. 2/lmv

Dear Professor Overberger:

Only now, on my return to Milan after a period of complete rest, I see your letter of Dec. 27. Therefore, to my great regret, I am too late to support the nomination of H. Mark.

The last few months have been very hard for me: my wife died on Oct. 22 of tumor. The loss is irreplaceable.
She faced death with the same courage she had shown during her whole life.

With kindest regards,

Giulio Natta

Ann

March, 7, 1969

Prof.
Anton Peterlin, Director
Camille Dreyfuss Laboratory
Research Triangle Institute
Research Triangle Park, N.C.2770
U S A

Dear Professor Peterlin,

many thanks for kindly sending me the Annual Report for 1968. I shall read it with much interest.

Kindest personal regards,

Giulio Natta

STATE UNIVERSITY COLLEGE OF FORESTRY

AT SYRACUSE UNIVERSITY

SYRACUSE, NEW YORK 13210

10 July 1967

Professor Giulio Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano
Italy

Dear Professor Natta:

A program of scientific cooperation for peaceful purposes was agreed upon by the governments of the United States and Italy on June 19, 1967. The aim of the program is to strengthen cooperation between scientists of the two countries and to provide opportunities for them to exchange ideas, techniques and skills, and to work jointly on problems of mutual interest.

I wish to propose a joint program between our group in Syracuse and your group in Milano as well as Pino's group in Pisa on the subject of Mechanism of Stereospecific, Ionic, and Coordination Polymerization. Our group has contributed much to unraveling the principles of ionic polymerization, and recently Dr. Schuerch in Syracuse made a substantial contribution to the subject of stereopolymerization in anionic systems. The contribution of your group is well documented and recognized by your Nobel Prize award, and Pino's studies of stereoselectivity and stereoelectivity are milestones in the field. I believe that joining our forces may be highly beneficial. We wish to contribute mainly to kinetic aspects, while the Italian groups would contribute to structural and preparative aspects.

May I, therefore, have your consent to submit such a proposal to our National Science Foundation? I hope you will accept this suggestion, and I am looking forward to future and fruitful cooperation with you and your colleagues.

With best regards,

Yours very sincerely,

Michael Szwarc

Michael Szwarc
Director, State University
Polymer Research Center

P.S. I had the chance to talk personally to Pino and he is aggreable towards cooperating in this project.

STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY
SYRACUSE, NEW YORK 13210

15 March 1967

Professor G. Natta
Istituto Di Chimica Industriale
Del Politecnico
Piazza Leonardo Da Vinci, 32
Milano
ITALY

Dear Professor Natta,

I hope that the enclosed two reprints will be of interest to you.

With best regards,

Very sincerely yours,

Michael Szwarc
Director, State University
Polymer Research Center

Aur

non ha
nessun
professore
che sia

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX 19029
WASHINGTON, D.C. 20036

January 3, 1969

ENRICO FERMI AWARD

Dear Sir:

The General Advisory Committee invites you as an individual to submit a nomination for the next Enrico Fermi Award. This Award is made under the provision of Section 157b(3) of the Atomic Energy Act of 1954 which states that, "....The Commission may also, upon the recommendation of the General Advisory Committee and with the approval of the President, grant an award for any especially meritorious contribution to the development, use, or control of atomic energy".

The first award under this Act was made on November 16, 1954, to Enrico Fermi. In December of 1955 the General Advisory Committee recommended to the Atomic Energy Commission that an Enrico Fermi Award be established on a permanent basis, and that it be international in scope, available to scientists of all nations. The recommendations, together with others pertaining to the Award, were approved by the Commission early in 1956.

The Commission determined that the Award should be made not more often than annually, and not necessarily annually. The recipients of the Award have been Dr. John von Neumann, Dr. Ernest O. Lawrence, Dr. Eugene P. Wigner, Dr. Glenn T. Seaborg, Dr. Hans A. Bethe, Dr. Edward Teller, Dr. J. R. Oppenheimer, Adm. H. G. Rickover, Dr. Otto Hahn, Dr. Lise Meitner, Dr. Fritz Strassmann, and Dr. John A. Wheeler.

The General Advisory Committee now has the duty of soliciting nominations for the next Award and of recommending a candidate or candidates to the Commission. The Committee and the Commission wish no worthy candidate to be overlooked. In making a nomination, please place principal emphasis on the statement of scientific and technical achievements upon which the nomination is based. You may minimize such data as can be found in standard reference works.

Nominees who fail of selection are retained on the Committee's list for further consideration for two additional years. If the candidate has not been selected in three consecutive years, his or her name will be removed from the list unless the candidate has been renominated in that time or until renominated.

Nominations for the next Award should be received by the Chairman, General Advisory Committee, U. S. Atomic Energy Commission, P. O. Box 19029, Washington, D. C. 20036, not later than March 1, 1969. Your assistance in making nominations will be greatly appreciated.

Sincerely yours,

N. F. Ramsey

N. F. Ramsey
Temporary Chairman

Dr. Guilio Natta
Polytechnic Institute of Milan
Milan, Italy

Jan. 14, 1969

Prof. Michael Szwarc, Director
Polymer Research Institute
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201 (USA)

Dear Professor Szwarc:

Thank you very much for kindly sending me your book, which I will read with much interest.

I do not know whether you heard about my great bereavement: my wife died at the end of October. The loss is irreplaceable. I am sure you understand my feelings.

Kindest regards,

Giulio Natta

August 4, 1967

Prof. M. Szwarc, Director
Polymer Research Institute
Polytechnic Institute of Brookl
333 Jay Street
Brooklyn, New York 11201 (USA)

our ref.465/eg

Dear Professor Szwarc:

Thank you for your kind letter of July 10, 1967, that I have just received. I am pleased to give you a positive answer to your proposal of mutual co-operation, and I am sure it will be largely fruitful; I believe that Prof. Pino will also agree on it. As for the particular tasks of our laboratories, I think that your criterion is acceptable, as a rule: your group will deal mainly with the kinetic problems, while other groups (i.e. Milan and Pisa) will tackle the structural and synthetic aspects; nevertheless, even in the preparative work, it may be necessary to carry on some orienting kinetic research, and vice-versa.

I send copy of this letter to Prof. Pino, and I am looking forward to meeting you as soon as possible, possibly in Milan: due to my general conditions, moving from my town is now very difficult to me.

Sending you my best wishes, I remain,

Sincerely yours,

G. Natta

U 5A

1970

1976

JOSEPH KOVER
147 - 40 - 73rd Ave.
Flushing 67, L. I., N. Y.
U. S. A.

OCT 4, 1970

HON. GIULLIO NATTA

DEAR SIR!—

AS A SCOUTMASTER AND MERIT BADGE COUNSELOR FOR CITIZENSHIP IN THE HOME, COMMUNITY AND NATION. MANY OF THE SCOUTS ASK ME IF PROMINENT CITIZENS WERE EVER SCOUTS OR AFFILIATED WITH THE MOVEMENT. I WOULD APPRECIATE A LETTER FROM YOU EXPLAINING A SCOUTING EXPERIENCE YOU HA[illegible] AS A SCOUT OR HOW SCOUTING BUILDS BETTER CITIZENS. A LETTER FROM YOUR GOOD SELF WILL GO A LONG WAY TO THE MANY SCOUTS WHO WILL BE PLEASED AND HONORED BY YOUR INTEREST.

THANKING YOU
RESPECTFULLY
Joseph Kover

Aur

Non ha mai proposto nessuno

GENERAL ADVISORY COMMITTEE
TO THE
U.S. ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545
ENRICO FERMI AWARD

January 5, 1970

Dear Sir:

The General Advisory Committee invites you as an individual to submit a nomination for the next Enrico Fermi Award. This Award is made under the provision of Section 157b(3) of the Atomic Energy Act of 1954 which states that, "....The Commission may also, upon the recommendation of the General Advisory Committee and with the approval of the President, grant an award for any especially meritorious contribution to the development, use, or control of atomic energy".

The first award under this Act was made on November 16, 1954, to Enrico Fermi. In December of 1955 the General Advisory Committee recommended to the Atomic Energy Commission that an Enrico Fermi Award be established on a permanent basis, and that it be international in scope, available to scientists of all nations. The recommendations, together with others pertaining to the Award, were approved by the Commission early in 1956.

The Commission determined that the Award should be made not more often than annually, and not necessarily annually. The recipients of the Award have been John von Neumann, Ernest O. Lawrence, Eugene P. Wigner, Glenn T. Seaborg, Hans A. Bethe, Edward Teller, J. R. Oppenheimer, H. G. Rickover, Otto Hahn, Lise Meitner, Fritz Strassmann, John A. Wheeler, and Walter H. Zinn.

The General Advisory Committee now has the duty of soliciting nominations for the next Award and of recommending a candidate or candidates to the Commission. The Committee and the Commission wish no worthy candidate to be overlooked. In making a nomination, please place principal emphasis on the statement of scientific and technical achievements in connection with the "development, use, or control of atomic energy" upon which the nomination is based. You may minimize such data as can be found in standard reference works.

Nominees who fail of selection are retained on the Committee's list for further consideration for two additional years. If the candidate has not been selected in three consecutive years, his or her name will be removed from the list unless the candidate has been renominated in that time or until renominated. Nominees who are deceased cannot be considered.

Nominations for the next Award should be received by the Chairman, General Advisory Committee, U.S. Atomic Energy Commission, Washington, D. C. 20545, not later than March 1, 1970. Your assistance in making nominations will be greatly appreciated.

Sincerely,

Howard G. Vesper

Howard G. Vesper
Chairman

Dr. Guilio Natta
Polytechnic Institute of Milan
Milan, Italy

JOSEPH KOVER
147 - 40 - 73rd Ave.
Flushing 67, L. I., N. Y.
U.S.A.

MARCH 20, 1971

HON. GIULIO NATTA
DEAR PROFESSOR:-

MAY I HAVE YOUR PERMISSION TO PUBLISH LETTER OF OCT. 9, 1970. WHEREIN YOU STATE YOUR EXPERIENCES IN THE BOY SCOUTS.

IF PERMISSION IS GRANTED YOUR LETTER WILL BE PUBLISHED IN OUR LOCAL SCOUT NEWSLETTER.

THANKING YOU
RESPECTFULLY
Joseph Kover

MILANO

ISTITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
PIAZZA LEONARDO DA VINCI 32 - 20133 MILANO

MILANO, Oct. 9, 1970

TELEF. 292.125 - 292.126
292.105 - 106 - 107

Mr. Joseph Cover,
147 - 40 - 73rd Ave.,
Flushing 67, L.I., N.Y. (USA)

Dear Mr. Cover:

I have received your letter with much pleasure since it renewed many memories of my youth, when I was a scout and, as such, I participated in trips, usually on the mountains, and campings.

Such scouting experiences have a remarkable importance not only to improve one's own physical state, but also for character formation.

I still have the Baden Powell's laws in my heart.

Sincerely yours,

Giulio Natta

SHELL CHEMICAL COMPANY
A DIVISION OF SHELL OIL COMPANY
ONE SHELL PLAZA
P.O. BOX 2463
HOUSTON, TEXAS 77001

5 Aprile 1972

Prof. Giulio Natta
Via Mario Pagano 54
Milan, Italy

Egregio Professore:

Dopo un lungo silenzio la scrivo per introdurre un mio amico e noto chimico, il Dott. Frank McMillan. Durante il suo carriere, il Dott. McMillan ha condotto molta ricerca nel campo polimerico, specialmente quanto riguarda la gomma sintetica. Per qualche anno, il Dott McMillan era direttore di ricerca per le materie plastiche della Shell Chemical Company. Recentemente si è ritirato e pensa di scrivere un libro concernante la polimerizzazione con l'accento sulla polimerizzazione stereospecifica. È molto desideroso di fare la sua conoscenza e se lei si sente così disposto, di parlare un poco in riguardo alla notevole contribuzione fatta da lei, prof Natta.

Io gli ho detto qualche parole del nostro rincontro nelle sessione "Gordon Conferences" ed anche in San Francisco che sempre ricordo con molto piacere ed affezzione. Anche la sua gentilezza nel occasione della mia visita a l'Istituto

UNIVERSITY OF HARTFORD

200 Bloomfield Ave., West Hartford, Connecticut 06117 U.S.A.

May 1, 1974

Dr. Giulio Natta
Polytechnical Institute of Milan
Milan, Italy

Dear Dr. Natta:

I am now completing a textbook of organic polymer chemistry, to be published by Addison-Wesley. Would you have any objection to my quoting you in reference to your original proposal for use of the terms isotactic and syndiotactic? The quotations are the following:

G. Natta. J. Polymer Sci., 16, 143 (1955)
"Comme nous attribuons an phénomène observé une importance fondamentale pour la connaissance d'une vaste catégorie de macromolécules, dont on a commencé une production destinée a de grands développements, nous avons voulu, pour en rendre plus facile la description, assigner aux atomes de carbone asymétriques ayant une configuration égale, le terme 'isotaxiques', du grec ἴσος = egal et τάττω=disposer en ordre."

G. Natta and P. Corradini, J. Polymer Sci., 20, 251 (1956).
"We propose to call all vinyl polymers with alternating D- and L-configurations of their substituents .... 'syndyotactic' polymers, using the Greek words tatto ('put in order') and syndyo ('every two')."

I have written to the publisher (Wiley-Interscience) to obtain their permission to reproduce the copyrighted material, and they have given their consent.

I had written an earlier letter to you, but it may have been lost or delayed.

I look forward to hearing from you.

Sincerely yours,

Malcolm P. Stevens

Malcolm P. Stevens
Associate Professor
of Chemistry

MPS:blw

UNIVERSITY OF HARTFORD

200 Bloomfield Ave., West Hartford, Connecticut 06117

Aul

February 19, 1974

Dr. Giulio Natta
Polytechnical Institute of Milan
Milan, Italy

Dear Dr. Natta:

I am now completing a textbook of organic polymer chemistry, to be published by Addison-Wesley. Would you have any objection to my quoting you in reference to your original proposal for use of the terms isotactic and syndiotactic? The quotations are the following:

G. Natta. J. Polymer Sci., 16, 143 (1955)
"Comme nous attribuons an phénomène observé une importance fondamentale pour la connaissance d'une vaste catégorie de macromolécules, dont on a commencé une production destinée à de grands développements, nous avons voulu, pour en rendre plus facile la description, assigner aux atomes de carbone asymétriques ayant une configuration égale, le terme 'isotaxiques', du grec ἴσος = égal et τάττω = disposer en ordre."

G. Natta and P. Corradini, J. Polymer Sci., 20, 251 (1956).
"We propose to call all vinyl polymers with alternating D- and L- configurations of their substituents ....'syndyotactic' polymers, using the Greek words tatto ('put in order') and syndyo ('every two')."

I am also writing to the publisher (Wiley-Interscience) to obtain their permission to reproduce copyrighted material.

I look forward to hearing from you.

Sincerely yours,

Malcolm P. Stevens

Malcolm P. Stevens
Associate Professor
of Chemistry

MPS:blw

Oct. 9, 1970

Mr. Joseph Cover,
147 - 40 - 73rd Ave.,
Flushing 67, L.I., N.Y. (USA)

Dear Mr. Cover:

I have received your letter with much pleasure since it renewed many memories of my youth, when I was a scout and, as such, I participated in trips, usually on the mountains, and campings.

Such scouting experiences have a remarkable importance not only to improve one's own physical state, but also for character formation.

I still have the Baden Powell's laws in my heart.

Sincerely yours,

Giulio Natta

April 8, 1971

Mr. Joseph Kover
147-40 - 73rd Ave.
Flushing 67, L.I., N.Y.

Dear Mr. Kover:

With reference to your letter of March 20, 1971, I am glad to grant you permission to publish my letter dated October 9, 1970, in your local scout newsletter.

Sincerely yours,

G. Natta

12.4.1972

Dr. Aldo De Benedictis
12639 Pebblebrook
Houston, Tx 77024, USA

Egregio Dottore,

ho letto con piacere la sua gentile lettera del 5 Aprile e sono stato lieto di avere sue notizie.
Il Dr. McMillan si è già messo in contatto con me per il libro che desidera scrivere. Purtroppo, come Lei sa, dal 1958 soffro per il morbo di Parkinson e questo mi ha costretto a lasciare quasi completamente il mio lavoro. Ho perciò risposto al Dr. McMillan che può avere le informazioni che desidera sia dal comune amico Sir Robert Robinson, sia dal mio collaboratore Prof. Italo Pasquon.

Molti cordiali saluti ed auguri.

Giulio Natta

JOURNAL OF POLYMER SCIENCE — A-1 and POLYMER LETTERS

EDITORS: H. MARK C. G. OVERBERGER T. G. FOX
EDITORIAL OFFICE: DEPARTMENT OF CHEMISTRY, UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN 48104

April 15, 1974

Advisory Board
Editors

Gentlemen:

I received the following letter from Dr. Mackenzie recently, and I am distributing it to you for your attention.

With kindest regards,

Sincerely,

Charles G. Overberger
Editor

CGO/lm
Encl.

PUBLISHED BY INTERSCIENCE PUBLISHERS, A DIVISION OF JOHN WILEY & SONS, INC.

INTERNATIONAL CONFEDERATION FOR THERMAL ANALYSIS
МЕЖДУНАРОДНЫЙ СОЮЗ ДЛЯ ТЕРМИЧЕСКОГО АНАЛИЗА
Honorary President: Prof. Dr. R. Bárta, Czechoslovakia

President: Prof. Dr. H. R. Oswald, Switzerland
Vice-President: Prof. H. Kambe, Japan
Secretary: Prof. G. Lombardi, Italy

Telephone: 0224-38611
Treasurer: Dr. R. C. Mackenzie
The Macaulay Institute for Soil Research,
Craigiebuckler,
ABERDEEN,
AB9 2QJ,
Scotland.

12 February 1974

Dr C. J. Overberger,
Editor, Journal of Polymer Science - A1,
605 Third Avenue,
New York, N.Y. 10016,
U.S.A.

Dear Sir,

Nomenclature in Thermal Analysis

Some three years ago I sent you, as editor of a major scientific journal, a copy of the First Report of the Nomenclature Committee of the International Confederation for Thermal Analysis (ICTA) (Talanta, 1969, 16, 1227-1330) with a request from the Council of ICTA that the recommendations therein be adopted as house standards for your journal. I enclose herewith the Second Report of this Committee, recently published in Talanta, 1972 19, 1079-1081, with a similar request from the Council.

The First Report was well received and generally accepted but it is disappointing to record that the recommendations have not as yet been implemented in some journals. Since this nomenclature system is currently being assessed for adoption by both IUPAC and ISO, may I again ask your cooperation in ensuring that your journal conforms? It is encouraging to note that definitive recommendations for the French, Italian and Japanese languages are now available.

I should also like to draw your attention to two reports (Analyt. Chem., 1967, 39, 543; 1972, 44, 640) issued by the Standardization Committee of ICTA; both deal with the reporting of thermoanalytical results and the information that should accompany them.

The Council of ICTA would indeed be grateful if you could draw the attention of authors and referees to the existence of these four documents, requesting adoption of the recommendations in all papers submitted to your journal. Should you wish to raise any matters relating to the above I would be pleased to hear from you; additional copies of the enclosed report and a paper describing the method adopted in developing standard nomenclature will be gladly sent on request.

We thank you, in advance, for your cooperation in this matter.

Yours faithfully,

Robert Mackenzie

R. C. Mackenzie,
Chairman, Nomenclature Committee

ed a casa sua mi é molto cara.

Il Dott. McMillan pensa di visitare l'Italia questa primavera ed é molto desideroso di fare la sua conoscenza. Il suo indirizzo nel America e

Dr. Frank McMillan
99 Tara Lane
Orinda, Cal. 94563

Da parte mia sono quasi quattro anni che mi trovo lontano dal laboratorio. Ho passato un paio d'anni in New York, ed ora mi trovo in Houston dove si sono rilocati gli uffici principali delle compagnie Shell. Gli uffici si trovano in un grattacule nuove nel centro della città quasi 50 kilometri lontano dal impianto Shell Chemical che lei ha visitato.

Gentile Professore, mi scusa questa richiesta. Pur troppo so quanto lei ha sofferto. Mi é difficile d'esprimere il mio dispiacere. Spero lei troverá un momento per scambiare due parole con il mio amico, il Dott. McMillan.

La saluto cordialmente, grazie milla.

Aldo De Benedictis

(casa) 12639 Pebblebrook
Houston, Tx 77024

la lettera di Vogl
è in mano all'Ing.
Alonia

Milan, April 1, 1974

Dr. Otto VOGL
Polymer Science and Engineering
University of Massachussetts
Amherst, Massachussetts 01002

Dear Doctor Vogl:

I wish to thank you for your kind letter and wishes.

Unfortunately my healt conditions dont allowed me to participate in the Los Angeles Meeting on the occasion of the 20th year of the publication of Natta-Ziegler Catalysis for Olefin Polymerization.

I'd like however to present my best regards to all the participants in the Symposium, and I wish also that their researches in the stereospecific polymerization field permit to improve the knowledge of certain natural phenomena and to enlighten on new applications also in the other chemical fields.

Sincerely yours

P.S. I'm pleased to send you within few days a photograph of myself.

Milan, April 29, 1974

Professor Malcom P. STEVENS
University of Hartford
200 Bloomfield Ave.,
West Hartford, Connecticut 06117

Dear Professor Stevens:

I am glad to give you an affirmative answer to your kind request of February 19, 1974 to obtain permission to reproduce some of my original quotations about the use of the terms isotactic and syndiotactic.

However, I would like it to be clarified in the text that the concept of "asymmetric" carbon atoms having "identical" (or "alternating") configurations is to be understood as referred to sufficiently long chain sequences.

Sincerely yours

(Giulio Natta)

June 14, 1974

Mr. Robert F. Allen, Jr.,
22 Holland St.
Lewiston, Maine 04240 (USA)

Dear Mr. Allen:

Your wishes for my birthday have been very gratefully received. I wish to thank you and your wife for all your kind words and thoughts.

A few months ago I have changed my home address and live at: Via S. Sebastiano - S. Vigilio, Bergamo (Italy).

Thanking you very much again, I send you and your wife my best regards.

Giulio Natta

22 Holland Street
Lewiston, Maine
USA - 04240

My dear Prof. Natta,

My wife and I would like to give you our very best and sincerest best wishes for a happy and joyous Birthday on the 26th. One, one of my country's greatest Senators, the late great Everett M. Dirksen of Illinois wrote me, and said this of birthdays, which I have never forgot, he said: "Somehow, birthday anniversaries, are high ground in our journey through life, for it gives us an occasion, to pause, and rethink the past, assess the present, and utter cherished hopes for the future."

Perhaps you too, can do just that as you start a new year in your great and dedicated life.

Sincerely, I am
Robert F. Allen Jr.

31 May 1976

Dr. Ernest A. Steinhoff
Dedication Conference Program
Chairman
Alamogordo Conference
P.O. Box 454
Alamogordo; N.M. 86310 Usa

Dear Doctor Steinhoff,

This is in reply to your kind letter of May 17, addressed to Prof. Giulio Natta, with the invitation to partecipate to the International Space Hall of Fame Dedication Conference, in Alamogordo next October.

I regret informing you that Professor Natta was compelled to retire due to his state of health and now I am the new Director of the Institute. Owing to what stated above, Prof. Natta will be unable to come to Alamogordo.

Accept my kindest regards,

Sincerely

Luigi Giuffrè

International Space Hall of Fame Dedication Conference
ALAMOGORDO, NEW MEXICO, U.S.A.
5 - 9 OCTOBER 1976

ALAMOGORDO CONFERENCE PROGRAM DIRECTOR:
DR. E.A. STEINHOFF
P.O. BOX 454, ALAMOGORDO, N.M., 88310
U.S.A.

17 May 1976

Prof. Guilio Natta, Director
Istituto di Chimica Industriale
Politecnico
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Professor Natta:

The International Space Hall of Fame, with the support of the International Academy of Astronautics, will conduct the Dedication of the International Space Hall of Fame at Alamogordo, New Mexico (USA) on 5 October 1976, with the Dedication Conference following 5 through 9 October 1976. During the Dedication Ceremonies and subsequent Scientific Sessions, Space Pioneers and scientists will be announced who have been chosen from an internationally prepared list to become inducted into the Space Hall of Fame. Enclosed are copies of the Initial Announcement of the Conference and a Tentative Program, in which the names in parentheses have not yet been confirmed.

On the evening of 5 October, leading participants in the Saturn-Apollo and Soyuz-Apollo projects will be honored in a Special Session expected to include Astronauts and Cosmonauts. Three major Symposia will be held during which 15 to 19 Sessions, among these history sessions, sessions on the evolution of concepts and technology in guidance, navigation and flight control and the new Space Station Committee of the Academy of Astronautics, will be conducted. Roundtable Discussions will include current and future aspects of Space Flight, Space Sciences, Space Law and Space Medicine. A formal Banquet on 9 October is also planned.

Travel arrangements are currently being considered for participants who will be attending the XXVII International Astronautical Congress at Anaheim to proceed there directly from Alamogordo or from Alamogordo to Anaheim via the Grand Canyon.

The International Space Hall of Fame Program Office, together with the International Academy of Astronautics, cordially invites you to attend both the Dedication Ceremonies and the Dedication Conference. You are further invited to attend the Special Session on the Soyuz-Apollo project, 8:00 p.m., Tuesday, 5 October, the Banquet, and all other IAA activities of interest to you. If you plan to attend, please notify the Program Office, and registration information will be sent to you.

Hoping that you will be able to attend the Space Hall Dedication Conference, and looking forward to seeing you there, I remain

Sincerely yours,

Ernst A. Steinhoff

Ernst A. Steinhoff
Dedication Conference Program Chairman

SUPPORTED BY THE INTERNATIONAL ACADEMY OF ASTRONAUTICS
OF THE INTERNATIONAL ASTRONAUTICAL FEDERATION
PHONE: (505) 437-1271 OR IN CASE OF NO ANSWER (505) 437-8654