



Dec.9, 1966

Dr.R.F. Schaufele,  
ESSO Research & Engineering Co  
Analytical Research Division,  
P.O.Box 121,  
Linden, N.J.07036 (U.S.A.)

our ref.642/lmv

Dear doctor Schaufele:

According to your request of Aug.8, 1966, I send you, under separate cover, a sample of highly syndiotactic polypropylene (index of syndiotacticity  $\approx 2.2$ ). The polymer has a low molecular weight, which has not been determined. If you prefer, you may not return the specimen.

With best regards,

Giulio Natta

Oct.28, 1966

*Am*

Dr.R.F. (Schaufele,  
ESSO Research & Engineering Co.,  
Analytical Research Division,  
P.O.Box 121,  
Linden, N.J.07036 (U.S.A.)

our ref.437/lmv

Dear doctor Schaufele:

I mostly apologize for answering your letter of Aug.8 with such a delay.

We read your manuscript with much interest and ask you to kindly keep us informed on your results. By now, an apparatus of such a capacity is not available to us.

We are just preparing the sample of syndiotactic polypropylene you required and hope to sent it to you within the first fortnight of November.

Kindest regards.

Giulio Natta

*Chiodere  
corpus  
Sambell ~ 5-6/12*



ESSO RESEARCH AND ENGINEERING COMPANY

ANALYTICAL RESEARCH DIVISION

P. O. BOX 121, LINDEN, N. J. 07036

D. L. GUERTIN  
DIRECTOR

*→ 7 erbi per all  
→ 2 caustice  
per campione  
29/8*

August 8, 1966

Professor Giulio Natta  
Consiglio Nazionale delle Ricerche  
Istituto di Chimica Industriale del Politecnico  
Milano, Italy

22 AGO 1966  
437

Dear Professor Natta:

Recently I have been studying the normal vibrations of isotactic polypropylene by means of the Raman effect. Enclosed are some preliminary results. It would be interesting to examine the low frequency vibrations of syndiotactic polypropylene by this approach. Would it be possible for your laboratory to furnish ~1 gm. of this polymer, in powder form, for a definitive spectroscopic study? The specimen could later be returned after study.

With best regards,

Yours Sincerely,

*Robert Schaufele*

R. F. Schaufele

RFS/mjp

Enclosure

*M. Anderson  
il campione  
per Raman*

*strumento -  
- interesse nei  
suo laboratorio -  
fabbrica ancora a  
disposizione  
strumento di tale capacità  
- serve in alcuni esperimenti  
any spectrometer for such  
spectra*



ESSO RESEARCH AND ENGINEERING COMPANY

CENTRAL BASIC RESEARCH LABORATORY

P. O. BOX 45, LINDEN, N. J. 07036

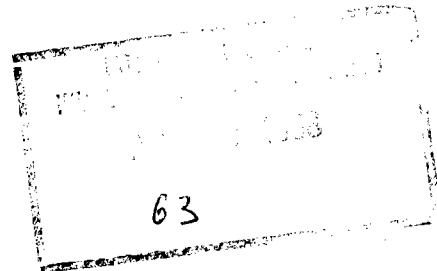
J. P. LONGWELL  
DIRECTOR

P. J. LUCCHESI  
ASSOCIATE DIRECTOR

*Corbello  
Esso*

January 23, 1968

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



Dear Professor Natta:

I have received your letter of November 21, 1967 concerning Mr. M. Notarbatolo.

Mr. Notarbatolo visited us a while ago and our patent people were favorably impressed by him. As a consequence of his visit and of your recommendation, we have decided to give him some patent work on a trial basis. Also within the next few weeks, I understand, Mr. Notarbartolo will receive some new patent applications to be filed in Italy.

We are grateful to you for this recommendation.

I am sending you my kindest regards.

Yours very truly,

J. P. Kennedy

JPK/smu

cc: Messrs. L. Chasan  
L. F. Marx

*Castella  
Esso*

June 20, 1967

our ref.338/lmv

Dr. J.P. Kennedy,  
c/o M. Farkas,  
95 Ave. de Villiers  
Paris 17, Francia

Dear doctor Kennedy,

I apologize for my delay in answering your kind letter of May 19, concerning your visit to my Institute.

The date of July 4 (at around 10 a.m.) you chose for your visit is convenient to us. If you do not object, you might deliver your seminar on "Carbonium Ion Polymerization, 1967" on July 4 at 11 a.m.

Please, confirm by cable whether that time is convenient to you, to enable me to send invitations.

You have been registered at the Hotel Manin, Via Manin, for the nights from July 3 to 5.

Looking forward to meeting you, I send you kindest personal regards.

Giulio Natta

*affine  
affine  
all with*

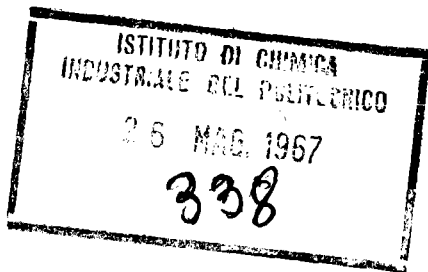


ESSO RESEARCH AND ENGINEERING COMPANY

CENTRAL BASIC RESEARCH LABORATORY

P. O. BOX 45, LINDEN, N. J. 07036

J. P. LONGWELL  
DIRECTOR  
R. H. PERRY, JR.  
ASST. DIRECTOR



May 19, 1967

*sentire  
Darius*

Professor G. Natta  
Institute di Chimica Industriale  
Politecnico  
Piazza Leonardo da Vinci 32  
Milano, Italy

Dear Professor Natta:

Thank you for your letter of March 21st. This is just a short note to confirm my visit to you and your institute. Thus I will arrive in the afternoon of July 3rd. I would like to ask you the favor to reserve a room for me in a hotel July 3, 4 and 5. In the morning of July 4th I will then come to your institute at around 9:30 A.M if this is convenient for you.

~~Handwritten scribble~~

I will leave the United States in a few days; if you would want to contact me you can reach me either in Brussels at the IVPAC meeting or from June 24 to 27 at the following address:

*667251*

J. P. Kennedy  
% M. Farkas  
95 Ave de Villiers  
Paris 17, France

*precofata  
10/6/67*

I am looking forward to seeing you and your researchers with great pleasure.

*dire ai  
seguito  
de Jano  
nostro  
ospite*

*il nostro  
ospite  
future  
a Centre  
Mac.*  
JPK:jn

Yours sincerely,

*John P. Kennedy*  
J. P. Kennedy

*seminario ore 11  
del 4/7*

*preferare  
inviati*



ESSO RESEARCH AND ENGINEERING COMPANY

CENTRAL BASIC RESEARCH LABORATORY

P. O. BOX 45, LINDEN, N. J. 07036

J. P. LONGWELL  
DIRECTOR  
R. H. PERRY, JR.  
ASST. DIRECTOR

ISTITUTO DI CHIMICA  
INDUSTRIALE DEL POLITECNICO  
31 MAR. 1967  
207

*Cartello  
Esso*

March 27, 1967

Professor Giulio Natta  
Istituto DiChimica Industriale  
del Politecnico  
Piazza Leonardo daVinci 32  
Milano-Italy

Dear Professor Natta:

Thank you for your letter of March 21. I am very glad that my schedule is convenient to you. According to your suggestion then I will come to Milano on July 4. I will be glad to deliver a lecture on the 4th and perhaps I can extend my stay over July 5 to discuss matters of mutual interest with your researchers.

Cordially,

*J.P. Kennedy*  
J. P. Kennedy

*inform  
Damon*

*arguments?  
vedere  
altre lettere*

JPK:jmw

cc: G. Dall'Asta  
E. Arundale  
L. Porri  
A. Valvassori

March 21, 1967

Carbelle  
Evo

Dr. J. P. Kennedy,  
ESSO Research & Engineering Co.,  
Central Basic Research Laboratory,  
P.O. Box 45,  
Linden, N.J. 07036 (U.S.A.)

our ref. 167/lmv

Dear doctor Kennedy:

In reply to your letter of March 9, I am glad that your schedule allows you to come on July 3, or 4 or 5. Although all dates are convenient to us, I would prefer July 4 or 5. Please, let me know the date chosen with some advance.

Kindest personal regards.

Giulio Natta





ESSO RESEARCH AND ENGINEERING COMPANY

CENTRAL BASIC RESEARCH LABORATORY

P. O. BOX 45, LINDEN, N. J. 07036

J. P. LONGWELL  
DIRECTOR  
R. H. PERRY, JR.  
ASST. DIRECTOR

167

March 9, 1967

*Arundale  
Porri  
Samuel  
Perry  
Blawie*

Instituto di Chimica Industriale  
del Politecnico  
Piazza Leonardo da Vinci 32  
Milano-Italy

Dear Professor Natta:

Thank you for your letter of March 3, 1967 and kind invitation to lecture at your institute on carbonium ion polymerization. I would be very pleased to visit you and your co-workers on a mutually agreeable date.

Since my schedule for June is completely filled I would like to propose July 3 or 4 or 5 for my visit. I hope one of these dates will be convenient for you and your co-workers. I am looking forward to see you in person and to discuss matters of mutual interest.

*questi mesi, un'altra  
in preferenza  
4 5 5*

Very truly yours,

*J.P. Kennedy*

J. P. Kennedy

JPK:jmw

cc: G. Dall'Asta  
L. Porri  
A. Valvassori  
E. Arundale

*ci confermi date*

March 3, 1967

*Carbelle*

Dr. J. P. Kennedy,  
Central Basic Research Laboratory  
ESSO Research & Engineering Co.,  
P.O. Box 45,  
Linden, N.J. 07036 (U.S.A.)

our ref. 111/lmv

Dear doctor Kennedy:

Thank you for your letter of Feb. 17.

My co-workers and I will be very glad to meet you in Milan, and would greatly appreciate your giving a seminar on "Carbonium Ion Polymerizations, 1967".

Unfortunately, there is a small difficulty about the date of your visit. June 2, 3, and 4 are holidays and all researchers will be absent. Therefore you should postpone your visit either to the week of June 5 to 9 or of June 19 to 23.

Looking forward to hearing from you on this matter, I send you kindest personal regards,

Giulio Natta

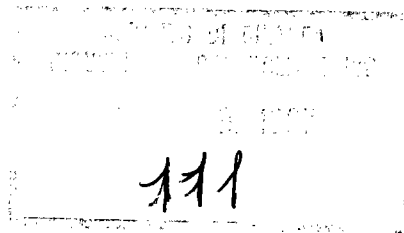


ESSO RESEARCH AND ENGINEERING COMPANY

CENTRAL BASIC RESEARCH LABORATORY

P. O. BOX 45, LINDEN, N. J. 07036

J. P. LONGWELL  
DIRECTOR  
R. H. PERRY, JR.  
ASST. DIRECTOR



February 17, 1967

Professor G. Natta  
Istituto Di Chimica Industriale  
del Politecnico  
Piazzo Leonardo DaVinci 32  
Milano, Italy

12-17

Dear Professor Natta:

I am planning to be in Europe for the International Symposium on Macromolecular Chemistry in Brussels in June 1967 and would like to visit you and some of your coworkers. Particularly I would like to meet Drs., L. Porri, A. Valvassori and G. Dall'Asta of your institute who in cooperation with you are contributors to the book on "Synthetic Elastomers" which I am coediting and is now in the process of being published. I will be pleased to see Dr. Porri again whom I met some years ago in New York.

If you would like to, I could give a lecture at your institute on one of my subjects. A list of proposed presentations is attached for your selection. Also I would like to discuss non-confidential matters of mutual interest with your co-workers.

June 3 and 4 would be convenient dates for my visit in Milano.

Wishing you all the best and with personal best regards.

Very truly yours,

*J. P. Kennedy*  
J. P. Kennedy

JPK:jw

Attachments

cc: G. Dall'Asta  
L. Porri  
A. Valvassori

*AD*  
*sabsabs*  
*e dom uni'cp*

March 1, 1967

Carletta  
Eso

Mr. Ralph M. Hill,  
Esso Research & Engineering Co.,  
P.O. Box 175,  
Linden, New Jersey 07036 (U.S.A.)

our ref. 124/lmv

Dear doctor Hill:

Thank you very much for your kind letter with which  
you inform me about your return to the States.

I was very glad to learn that you enjoyed your stay  
in Europe.

With my best regards and sincerest wishes,

Sincerely yours,

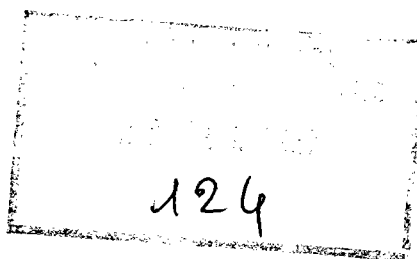
Giulio Natta



ESSO RESEARCH, SOCIÉTÉ ANONYME

56 RUE DU MARAIS — BRUXELLES 1

R. M. HILL



Téléphone 18.61.99  
Telex Essores Bru 22656

R. C. Bruxelles 329305  
(Siège social: 178, chaussée  
de la Hulpe, Bruxelles 17)

February 24, 1967.

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

Dear Professor Natta,

This is to inform you that as of March 1, 1967,  
I will have completed my European assignment for my Company,  
Esso Research and Engineering Company. During almost 6  
years in Europe, it has been a real pleasure to know and to  
work with you.

After March 1, my address will be:

Ralph M. Hill,  
Esso Research and Engineering Co.,  
P.O. Box 175,  
Linden,  
New Jersey 07036,  
U.S.A.

If and when you should come to the U.S.A., I shall hope to  
see you there.

Sincerely,

*R.M. Hill*

R.M. Hill

Carbetta  
Esso

8 febbraio 1966

Spett. **ESSO STANDARD ITALIANA**  
Ufficio Pubbliche Relazioni  
Via N. da Tolentino 78  
Roma

ns.rif.56/lmv

Desidero ringraziarVi vivamente per avermi gentilmente  
inviato gli estratti dei lavori pubblicati dalla  
ESSO Research and Engineering Co. e per aver richiesto  
l'unico mancante ai relativi autori.

Grazie ancora e saluti.

Giulio Natta

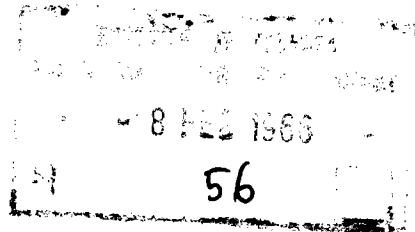
# ESSO STANDARD ITALIANA

ufficio pubbliche relazioni

Via N. da Tolentino 78  
Roma

Roma, 2 Febbraio 1966

Ch.mo Prof. Giulio Natta  
Politecnico di Milano  
Istituto di Chimica Industriale  
Piazza Leonardo da Vinci 32  
MILANO



Chiarissimo Professore,

siamo molto lieti di accluderLe il testo completo di alcuni lavori, pubblicati dalla nostra consociata Esso Research and Engineering Co. e contenuti nella pubblicazione "Search" in riassunto, da Lei richiesti il 17 novembre 1965.

Desideriamo scusarci per il ritardo con cui glieli inviamo, dovuto alle difficoltà incontrate per trovare i testi presso i relativi autori.

Come vedrà, il testo del lavoro pubblicato a pag.6 di "Search" non è accluso. Si tratta di "The Characterization of the component distribution in the fractionation of Multi-component Mixtures" di Roger M. Butler e Israel Pasternak, che è stato chiesto agli autori e Le invieremo non appena in nostro possesso.

RingraziandoLa molto per l'interesse verso le nostre pubblicazioni, La preghiamo di gradire i nostri migliori saluti.

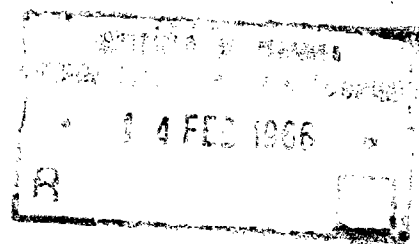
ESSO STANDARD ITALIANA  
Ufficio Pubbliche Relazioni

All.c.s.

Handwritten signature of R. Butler.

# ESSO STANDARD ITALIANA

ufficio pubbliche relazioni



Roma, 10 febbraio 1966

Gent.mo Prof. Giùlio NATTA  
Direttore Istituto Chimica Industriale  
Politecnico di  
MILANO

Gentilissimo Professore,

Le accludiamo la relazione 'The Characterization of the Component Distribution in the Fractionation of MultiComponent Mixtures' di Butler e Pasternak, che non era acclusa alla nostra precedente lettera.

La ringraziamo ancora per l'interesse verso la pubblicazione "Search" e rimaniamo a Sua disposizione per qualsiasi altra cosa Ella possa richiederci.

La preghiamo di gradire i nostri migliori saluti.

ESSO STANDARD ITALIANA  
Ufficio Pubbliche Relazioni

All.c.s.



17.11.1965

ns.rif.N. 620/r1

Egr. Dr. Lorenzo Cantini  
Ufficio Pubbliche Relazioni  
Esso Standard Italiana - Ufficio di  
R O M A - Via S. Nicolò da Tolentino 78

Egregio Dottore,

La ringrazio molto per gli estratti da Lei inviati, dei lavori riassunti nella quarta edizione di "Search", che leggeremo con molto interesse, e per il nuovo numero di Search che raccoglie i lavori pubblicati nel 1964 dai tecnici della Esso. Gradirei ricevere il testo delle pubblicazioni delle seguenti pagine di Search N. 5 : 5, 6, 8, 11, 12, 19, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36.

RingraziandoVi ancora, invio distinti saluti.

(Prof. G. Natta)

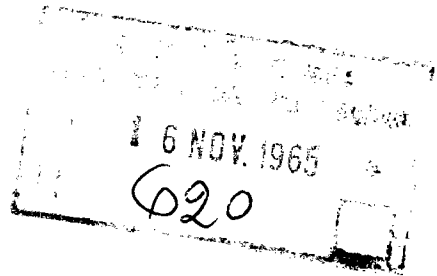
# ESSO STANDARD ITALIANA

ufficio pubbliche relazioni

ESPRESSO

Roma, 11 novembre 1965

Gent.mo Prof. Giulio NATTA  
Politecnico di Milano  
Istituto di Chimica Industriale  
Piazza Leonardo da Vinci 32  
MILANO



Gentilissimo Professore,

siamo lieti di accluderLe, scusandoci molto per il ritardo, dovuto a difficoltà nel raccogliere il materiale negli Stati Uniti, i lavori contenuti in riassunto nella quarta edizione di 'Search'.

Cogliamo l'occasione per accluderLe anche "Search n.5", che raccoglie, sempre in riassunto, i lavori pubblicati nel 1964 negli Stati Uniti dai tecnici della Esso Research.

Siamo a Sua disposizione per farLe avere i testi di quei lavori che dovessero interessarLa.

RingraziandoLa per l'attenzione, La preghiamo di voler gradire i nostri migliori saluti.

*16/11 distribuita  
a ringraziano*

ESSO STANDARD ITALIANA  
Ufficio Pubbliche Relazioni

A handwritten signature in dark ink, appearing to read "A. Planting". The signature is written in a cursive style and is positioned above a horizontal line.

MM/  
All.c.s.

27.7.1965

*Impresa*

Egr. Dr. Lorenzo Cantini  
Ufficio Pubbliche Relazioni  
Esso Standard Italiana  
Ufficio di

R o m a - Via di S. Nicolò da  
Volentino, 78

Vi ringrazio di avermi inviato la quarta edizione di "Search", che raccoglie i lavori pubblicati nel 1963 dai tecnici della Esso Research & Engineering Co.

Mi interesserebbe ricevere, se è possibile, il testo delle pubblicazioni delle seguenti pagine : 3, 4, 5, 6, 12, 13, 16, 17, 19, 21, 23, 24, 25, 28, 29, 31, 32, 34, 35, 36.

RingraziandoVi anticipatamente, invio distinti saluti.

(Prof. Giulio Natta)

Carbelle  
Esso

Nov. 16, 1965

Dr. W. C. Asbury

Esso Res.

USA

Dear doctor Asbury:

Rosita and I mostly regret that we cannot attend the dinner given in your honor. We shall be present, however, with our thoughts.

I gladly remember all the meetings we had in the past, since I was much impressed by your warm-heartedness as well as by your outstanding scientific and technical culture.

If the opportunity arises for you to come to Europe, I shall be very happy to meet you again.

Kindest personal regards.

Giulio Natta

# ESSO STANDARD ITALIANA

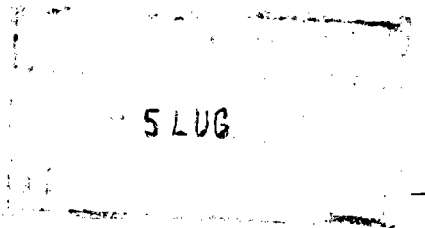
SOCIETÀ PER AZIONI SEDE CENTRALE IN GENOVA



da indicare nella risposta  
UFFICIO DI ROMA

capitale L. 20.000.000.000  
interamente versato

Roma,  
Via di S. Nicolò da Tolentino, 78  
telefono: 470.051 - 471.407  
telegrammi: Essoufficio



Roma, 25.6.1965

La nostra consociata Esso Research & Engineering Co. presenta ogni anno in riassunto i lavori pubblicati su riviste scientifiche durante l'anno precedente, raccogliendoli nella pubblicazione "Search".

Siamo lieti di farLe avere la quarta edizione dell'opuscolo, che raccoglie i lavori pubblicati nel 1963, augurandoci che Le possa essere utile.

Restiamo a Sua disposizione per farLe avere il testo di quelle fra le pubblicazioni riassunte che Le interessino particolarmente.

Voglia gradire i nostri migliori saluti.

- + Danusso pag. 34
- + Dente 4, 5, 6, 28, 35
- Farina no
- + Mantica 3, 16, 29
- + Monaglio 19, 32, 33
- + Pasquon 21, 23, 24, 29, 31, 34
- + Peponero ~~mente~~ per
- Peroldo no
- + Pomi 12, 13, 17, 25, 36

ESSO STANDARD ITALIANA  
Ufficio Pubbliche Relazioni

*Lorenzo Cantini*  
Lorenzo Cantini

per farLe, separate le pubblicazioni che vi interessa ricevere -  
inviare a: f. r. s. R. h.

Carbelle  
Esso

Nov.16, 1965

Mr.F.R.Loofbourow,  
ESSO Research & Engineering Co.  
P.O.Box 243  
Elisabeth, N.J. 07207 (U.S.A.)

Dear Mr.Loofbourow:

Thank you for your letter of Nov.8, by which you inform me that Mr.W.C.Asbury is retiring from ESSO. I mostly regret my impossibility to attend the dinner for him. I would be mostly pleased if you can say my regret to Bill and to his friends.

I have been acquainted with Mr.Asbury for several years and always appreciated his high qualities, both as a technician and as a man.

Herewith enclosed, I send you a letter for Bill.

Sincerely yours,

Giulio Natta

Encl/



ESSO RESEARCH AND ENGINEERING COMPANY

P. O. BOX 243, ELIZABETH, N. J. 07207

F. R. LOOFBOUROW  
SECRETARY  
ALICE C. BARTLES  
ASST. SECRETARY

CABLE ADDRESS: CONTRASSO-N. Y.

November 8, 1965

Prof. G. Natta  
Via Mario Pagano 54  
Milan, Italy

Dear Prof. Natta:

Mr. W. C. Asbury is retiring from Esso Research and Engineering Company on December 1, 1965, and a reception and dinner is being planned for him on Thursday, December 2, at 6:00 p.m. at the Hotel Suburban in Summit, New Jersey.

We are aware that many of Bill's friends from afar may find it impossible to attend, but hope that if you are in this area at that time you will join us. If you can join us, please let me know.

If you wish to send greetings to be presented to Bill, please forward them to me.

We would appreciate your circulating this notice to those in your organization you feel would have an interest.

Very truly yours,

*F. R. Loofbourow*

FRL:rn

*Carbelle  
Esso*

Septembre 3, 1964

our réf. 656/eg

Dr. W. Philippoff  
ESSO Research and Engineering C  
Products Research Division  
P.O. Box 51  
Linden, N.J.

Dear Doctor Philippoff:

I will be very pleased to meet you here when you plan to visit Milan.

If, by chance, I am absent, you will discuss topics of mutual interest with my co-workers prof. Danusso and Moraglio.

Kindest personal regards.

*arrivati  
3/9/64*

G. Natta





**ESSO RESEARCH AND ENGINEERING COMPANY**

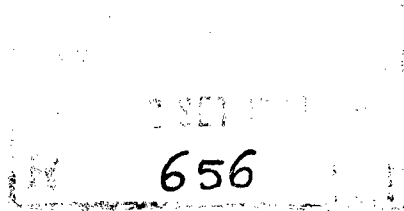
PRODUCTS RESEARCH DIVISION

P. O. BOX 51, LINDEN, N. J.

W. PHILIPPOFF  
SENIOR RESEARCH ASSOCIATE

August 10, 1964

Prof. Giulio Natta  
Chemistry Department  
University of Milan  
Milan, Italy



Dear Prof. Natta:

In the middle of September, I plan to be on a trip through Italy and would like very much to visit your institute in Milan. I have not had the pleasure of meeting either you or your collaborators at meetings. However, I've been working in the field of rheology for a considerable time and know your work in the field of polyolefins quite well. I think there could be subjects of mutual interest that we could discuss at this meeting.

I am not making a special detour to come to Milan, as I am visiting Dr. Giorgio Segré at Cartiera Vita Mayer in Milan, who visited me at Esso after the International Congress on Rheology last fall. I have also met Prof. Liquori now of Naples at Montreal in 1962 at the International Union of Chemistry meeting, who I believe formerly worked with you.

I hope this visit will be possible and hope to hear about your decision soon.

Yours very truly,

W. Philippoff

WP/sg

ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

Telephone  
HYDe Park 7030

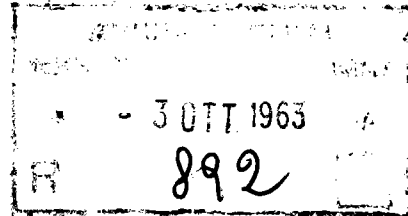
Cables  
Eurotech London W1

*Carroll Egan*

RALPH M. HILL

TL-538-63  
October 2, 1963

Professor Dr. G. Natta  
Istituto di Chimica Industriale  
del Politecnico  
Piazza Leonardo da Vinci 32  
Milano



Dear Professor Natta:

Thank you for your letter of September 6th. I am glad that you liked your picture and I should tell you that the prints were made in the U.S.A. from an Agfa color transparency. It has been my experience here in the U.K. that the prints are somewhat inferior to those made in the United States. Therefore, I am sending the transparency back to the U.S. and I shall have a copy of the transparency made together with some additional prints. When these are returned to me I shall forward the original transparency and the prints to you.

I hope that you are enjoying good health and that I will have the pleasure of meeting with you again on one of my future visits to Milano.

Sincerely yours,

*Ralph Hill*

R. M. Hill

RMH:cn

*Castello Esso*

January 14, 1960

Dr.W.C.Asbury,  
Vice President  
Esso Research and Enginee  
Co.  
P.O.Box 111, Linden, N.J.

our ref.28/lv

Dear Dr.Asbury,

with regard to your letter of January 11, 1960,  
I am sorry to inform you that my research laboratories  
are closed on Saturday morning.

Anyway, I shall be very glad to meet you and  
Mr.Murphree either at the Montecatini offices or at  
home on January 23.

With my best regards,

G.Natta

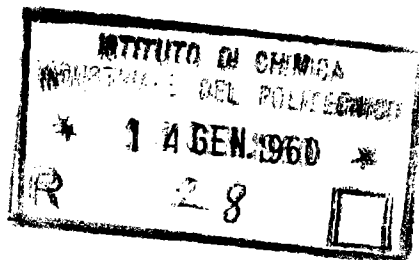
# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)



January 11, 1960

Prof. G. Natta  
Institute di Chemica Industriale del Politecnici  
Piazzo Leonardo de Vinci 32  
Milano, Italy

Dear Prof. Natta:

As you probably have heard from Mr. Giustiniani, Mr. E. V. Murphree and I are visiting Mr. Giustiniani at 11:00 a.m. on Saturday morning, January 23. I do not know whether it is the practice to have your laboratories open on Saturday morning in Milan, but I thought that if they were open, Mr. Murphree might like to pay them a brief visit on his way to the Montecatini offices. Would you kindly drop me a note regarding your thoughts on this?

Very truly yours,

A handwritten signature in cursive script that reads "W. C. Asbury".

W. C. Asbury

WCA/ens

cc: Mr. P. Giustiniani

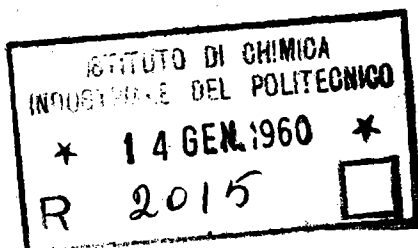
*20 gennaio 1960  
Prof. G. Natta, via  
Piazzo Leonardo  
de Vinci 32, Milano  
e alla Montecatini  
via...  
e via...*

MONTECATINI

Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

PROMEMORIA



Data 13 Gennaio, 1960.

MP/gc

per il Signor Prof. G. Natta - Ist. Chim. Industr.  
Politecnico - Milano.

*Capello*  
*Esso*

OGGETTO: Opposizione dom. di brevetto Inglese 796.845  
Esso Research & Eng. Co. (107/177).

Egregio Professore,

Le alleghiamo copia della dom. di brevetto in oggetto contro la quale è in corso da parte nostra un procedimento di opposizione.

Entro il 21 Febbraio dovrà essere presentata presso il Patent Office la nostra Evidence per la preparazione della quale occorrerebbe che Lei provvedesse a fornirci dati sperimentali atti a dimostrare:

- 1) L'impiego di clorobenzolo come diluente inerte non è sufficiente per distinguere l'invenzione della domanda in oggetto dalla invenzione del brevetto inglese 810.023 a nome Montecatini-Ziegler (Pool I).
- 2) L'impiego di clorobenzolo non porta a risultati migliori di quelli ottenibili con l'impiego dei diluenti inerti descritti nel nostro brevetto 810.023.
- 3) Riferimenti atti a dimostrare che il clorobenzolo è un solvente noto per la polimerizzazione.

*fatte prove* →  
*fare 11636* →

La preghiamo di voler prendere in esame questo caso con cortese sollecitudine, poichè il termine per la presentazione dell'Evidence al Patent Office è molto prossimo e dubitiamo di poter ottenere ulteriori estensioni.

La quantità e la qualità dei dati che ci verranno forniti avrà molta importanza per la preparazione dell'Evidence.

In attesa della Sua cortese risposta La preghiamo di gradire distinti saluti.

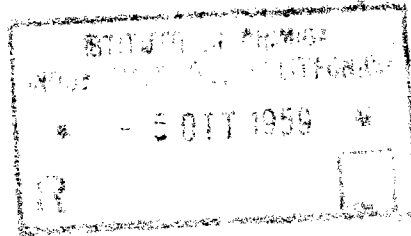
SERVIZIO BREVETTI.

# MONTECATINI

SETTORE PROGETTI E STUDI

Milano, 2 Ott. 1959.

Preg. mo Signore  
Ing. Piero Giustiniani,  
S e d e.



*cut*

*lip*

## Esso Research.

Il dr. Guyer mi ha mandato una relazione presentata a Chicago il 23 Settembre, su "Extrusion Coating of Polypropylene on Paper", che ho passato a Larcher.

Contiene alte lodi del polipropilene, quello prodotto dalla Esso.

Lto: Orsini

Or/al.

From: Walter R. Guyer  
 Esso Research Ltd  
 London

# HOTEL Eden

Perrella  
 Esso

Prof. G. Natta  
 Milan University  
 Milan, Italy

Düsseldorf  
 WILHELM-ADE-STRASSE 29  
 INDIENFELD  
 TELEFON 9  
 \* 15 SET 1959 \*  
 R 998

9 September 1959



MODERNES HAUS I. RANGES  
 IM ZENTRUM DER STADT

160 BETTEN - 70 BÄDER

ALLE ZIMMER MIT TELEFON  
 UND RADIO

EINZEL-  
 UND DOPPELAPPARTEMENTS

LIFT

RESTAURANT - GRILL-BAR

GESELLSCHAFTSRÄUME

KONFERENZZIMMER

INTERNATIONALE KÜCHE

GARAGEN

WAGENPFLEGE

Dear Professor Natta:

As you will recall from my previous visits, I am serving as the European Scientific Liaison Representative of Esso Research and Engineering Co.

According to my present plans I will be in Milan on Tuesday and Wednesday, September 15 and 16, and I wondered whether I could drop by to see you for a half-hour or so, sometime on Wednesday. I will be accompanied by Dr. H. M. Ashton who has joined me in our Technical Liaison effort, and I would like to introduce him to you, if this is convenient.

If you have the opportunity to drop  
me a note at my London address  
(now 50 Stratton Street, London W1),  
that would be fine, but if not, there is  
no concern because I will telephone  
you sometime on Tuesday to see whether  
this <sup>visit</sup> is feasible. In other words, I  
will definitely telephone you or your secretary  
on Tuesday because I will be leaving  
London early on Monday, and may  
possibly not see the mail.

Naturally, we would be glad to  
help you in any items in case you need  
new petroleum hydrocarbon samples  
etc. Also, you may be interested in  
some of our work on Butyl rubber  
etc.

I trust that you and your family have  
had a pleasant summer, and I look  
forward to seeing you on this trip to  
Italy, or on some other early occasion  
if this is not convenient.

Very truly yours,

Walter D. Geyer

I will be back in London on Friday, Sept 11th.

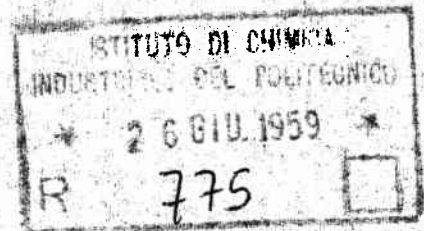


Milano, 25 Giugno 1959.

SEID.

*[Handwritten signature]*

*[Handwritten initials]*



Elastomeri di gomma butilica.

Unisco i seguenti rapporti avuti dalla Esso Research :

- Accelerated Aging tests and outdoor performance of butyl rubber.
- A study of abrasion and road wear of butyl tires through designed compounding experiments.
- Improved butyl rubber vulcanizates.
- Butyl rubber latex a review of its general properties in non-transport applications.

**Esso Research**

Or/al.  
All.

Memorandum on Proposed Exchange of Information  
between Montecatini and Esso Research

**(A) Background Information**

Montecatini and Prof. Natta have made excellent progress in developing a new elastomer from mono-olefins using catalysts of the alkyl-mercurial type. They have operated a pilot plant for producing this Elastomer and have had tires made by Pirelli and have reported excellent results from testing such tires. Montecatini has announced that it is going ahead with a large scale plant of 60,000 tons/year capacity of an Elastomer made from ethylene and propylene.

Esso Research has had considerable experience in making tires from Elastomers of the butyl rubber type and together with its affiliates has spent more than five million dollars over the past seven years on the development of new butyl rubber tires that appear to have real promise. Esso Research in this work has worked with rubber companies and has run a pilot production line with one rubber company and during the course of this work has learned a great deal about the problems of tire building and testing of tires. Esso Research believes that it could, with this experience, be of considerable help to Montecatini in the full commercialization of synthetic tires from ethylene-propylene Elastomers.

It is therefore proposed that Montecatini and Esso Research enter into an agreement along the following lines:

- (1) They agree to exchange information on the use of Elastomers made by the polymerization or copolymerization of olefins, diolefins or

mixture of olefins and diolofins using catalysts of the alkyl-metal type, such exchange to be for a period of two years. Such use shall include the compounding, vulcanization and utilization of such Elastomers and the testing of Elastomers and products manufactured therefrom.

(2) Montecatini and Esso Research agree to exchange worldwide immunities on the compounding, vulcanization and utilization of such Elastomers under inventions made during the term of this agreement.

(3) Montecatini agrees to supply Esso Research with the information it has on the compounding, vulcanization, fabrication and testing of tires made from Elastomers together with reasonable size samples of such Elastomers and a number of tires made from such Elastomers.

(4) Esso Research agrees to supply Montecatini with a summary of its experience on compounding, fabrication and testing of tires made from butyl rubber. Esso Research will also study the information supplied by Montecatini and advise Montecatini of the opinion of the commercial prospects for such Elastomers for tires and any changes in Elastomer properties or compounding or tire building that it feels would be desirable. Esso Research will also report the results of any road testing of tires supplied by Montecatini.

(5) Montecatini agrees that during said two year period it will offer to Esso Research an opportunity to take a license for Elastomers before issuing licenses to others in those countries where Montecatini has not issued such a license prior to the effective date of this agreement.

1/14/59

Primo per l'industria

24.1.1957

M. Ashby  
M. Murphy

Oxid. di idrocarburi C<sub>6</sub> e C<sub>5</sub>

- di metil + etilidrossidrucci -  
- etilidrossidrucci -

80% con i metilidrossidrucci  
di cui 50% di metilidrossidrucci

Quali impieghi?

27.000 t butadiene per N<sub>2</sub> con

Ashby in ricerca su metilidrossidrucci. Etichetta di lavoro

Uso di metilidrossidrucci di petrolio (?)

Prezzo 25 centesimi → 20 centesimi di 50 etilidrossidrucci  
(fora 18?)

Alcuni di etilidrossidrucci. 50 centesimi / etilidrossidrucci  
Sono in ricerca per U.S.A. Canada per etilidrossidrucci.  
(Possibilità anche di etilidrossidrucci?)

Intesa da Wrona su alcuni centesimi di etilidrossidrucci  
su etilidrossidrucci?

Acidi grassi Koch in?

Analisi di impieghi Primo e etilidrossidrucci  
→ etilidrossidrucci

Francia isolamento + etilidrossidrucci → etilidrossidrucci -  
(Ogni-die che i metilidrossidrucci per acqua metilidrossidrucci in corso)

Primo su un solo etilidrossidrucci per etilidrossidrucci -



# ESSO RESEARCH AND ENGINEERING COMPANY

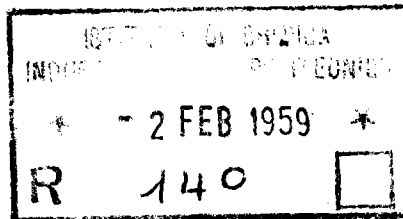
(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. Box 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)

January 28, 1959



Prof. G. Natta  
Institute di Chimica Industriale  
del Politecnico  
Piazzo Leonardo de Vinci, 32  
Milan, Italy

Dear Prof. Natta:

On behalf of Mr. and Mrs. Murphree and myself, I want to thank you and Mrs. Natta for your many kindnesses while we were in Milan. I know that Mrs. Natta went to a great deal of trouble in preparing a very excellent lunch for us on short notice. She was also most helpful in taking Mrs. Murphree on shopping tours.

We also appreciated your showing Mr. Murphree your laboratories and hearing about your research work.

With best personal regards.

Very truly yours,

W. C. ASBURY

*W. C. Asbury*

wca/cw

*W*

copia p. c. PROF. NATTA

*Esso Res-*

**G/ST/Al**

2086

**Milan, December 12, 1958**

**Dear Mr. Tyson,**

**I received your letter of December 12th.**

**I recall quite well your telephone conversations with Dr. De Varda, as well as the cable you sent me with regard to the polypropylene license in Japan, for your associated Company.**

**The situation being, for various reasons, very delicate, I beg both you and our friend Mr. Asbury to await still some days before knowing which is our attitude in this respect. I will not fail to inform you as soon as possible.**

**With my best personal regards,**

**Yours sincerely,**

**(Ing. Piero Giustiniani)**

**Mr. J. T. TYSON  
Esso Research Limited  
50 Stratton Street  
LONDON, W. 1.**

*PG*

CT 32 ED515 AZ466 AWB705354

12TH

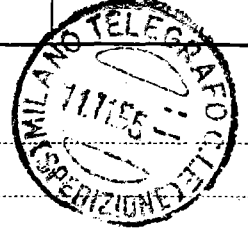
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MODULARIO  
Telegr. - 61

L'Amministrazione non assume  
liabilità civile in conseguenza del servizio telegrafico.

INDICAZIONI D'URGENZA	Ricevuto il	19..... ore .....	Le ore si contano sul meridiano centrale dell'Europa Centrale. Nei telegrammi impressi a caratteri dopo il nome del luogo di origine rappresenta quello del luogo di presentazione.	AWB705354	AWB705354
	43	RICEVENTE			
	Pel circuito N. ....				

Qualifica	DESTINAZIONE	PROVENIENZA	NUM.	PAROLE	DATA DELLA PRESENTAZIONE		Via e indicazioni eventuali d'ufficio
					Giorno e mese	Ore e minuti	
	1955 NOV 11	19:45					



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ED515 ATTN PROF NAITA SAMPLE DICYCLOPENTADIENE AIRFREIGHTED

AZ466 AWB705354 NOVEMBER 12TH = EUROTECH

# ITALCABLE

Isso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

- LUM657 G11078 LONDON TELEX 27 26 1140 =

PER LA RISPOSTA TELEFONATE AL **N. 88.38**

PROF G NATTA POLITECNICO  
DI MILANO MILANO ITALY =

PZA L. DA VINCI 32



TELEGRAMMA via Italcable via Italo Radio

688

*26 ago 1955*  
Spazio riservato agli estremi di ricevimento

= ED314 WILL VISIT YOU SEPTEMBER 6 ADDRESS IS ESSO DEVELOPMENT  
COMPANY LIMITED 33 DAVIES STREET LONDON W1 = P SMITH EUROTECH +

*Milano 26/8/55*  
*ESSO Development*  
*33 Davies Street*





26 August 1955

192  
G. Natta

Professor Smith  
Esso Development Company Limited  
33 Davies Street  
London W. I. England.

Dear Mr. Smith

I have received your telegrams of August 24 and 26. I will be glad to meet you in Milan on the 6th of September in the afternoon or on the 7th.

I have spoken with Ing. Giustiniani, President of the Montecatini, and I may tell you that he thinks it is premature to speak now about the production of the new polymers.

He will get in touch directly with the President of the Esso Company, when he will think the right moment has arrived.

Very sincerely yours,

G. Natta.

# ITALCABLE

refisso e Numero - Provenienza - Numero Parole - Data - Ore - Indicazioni eventuali

LUM813 G1583 LONDON TELEX 31 24 1343

PER LA RISPOSTA TELEFONATE AL N. 88.38

*Prof. Natta*

733

RP1.93 PROF G NATTA  
POLITECNICO DI MILANO



TELEGRAMMA *via Italcable* *FM Italo Radio*

*24 agosto*  
TSC

*207*

MILANO ITALY =

L DA VINCI 32 TF 292107

Spazio riservato agli estremi di ricevimento

ED306 WOULD SEPTEMBER 6 BE SATISFACTORY FOR MY VISITING YOUR  
INSTITUTE AND MONTECATINI QUERY REPLY PAID P SMITH ESSO  
DEVELOPMENT CO LTD = EUROTECH +

NON TELEFONATO  
IN ASSENZA DESTINATARIO  
sigla VET

ALLEGATO  
BUONO  
N. 53203



Il Governo Italiano e la Società Italcable non assumono alcuna responsabilità in conseguenza del servizio telegrafico

17  
Inglese

25/8/55

EUROTECH  
LONDON  
REYOUR 24 VISIT POSSIBLE ONLY FOR POLYTECHNIC  
LABORATORY LETTER FOLLOWS STOP PLEASE SEND ME  
EXACT ADDRESS TO ENABLE ME TO WRITE YOU ON  
SUCH SUBJECT

N A T T A

Presidenza  
Prof. Natta

785A  
high  
W.A. Smith  
1-600

# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 51, LINDEN, N. J.

SCIENTIFIC LIAISON  
C. L. BROWN - MANAGER

May 1, 1956

Professor G. Natta  
Politechnic Institute of Milano  
Milano, Italy

Dear Professor Natta:

I have had an opportunity to talk with Dr. C. L. Brown of the Esso Research and Engineering Company about your visit to and talk at the Esso Research Center on June 27.

Dr. Brown will arrange to have a car at your New York hotel at 8:30 A. M. on June 27. The car will get you to the Esso Research Center a little after 9:00 A. M. You will have an opportunity to meet some of the staff before your lecture which would be scheduled for 10:15, to extend to possibly 11:30. After the lecture, the Esso Research people would like you to spend as much of the day as possible in informal group discussions. There will, of course, be luncheon with Esso Research personnel.

As opportunity permits, Dr. Brown would like to get information on the size of the slides which I assume you will have and will wish to present. Later on, I assume that Dr. Mark will advise Dr. Brown of the name of your New York hotel.

Very truly yours,

*P. V. Smith, Jr.*  
P. V. SMITH, JR.  
Esso Development Co. Ltd.  
33 Davies  
London W 1, England

pvs/cw

CC: Messrs. W. C. Asbury  
C. L. Brown  
H. F. Mark

May 9, 1956

*Hyph*

Mr. P. V. Smith, Jr.  
Esso Research Limited  
33 Davies Street  
London W. 1. - England

Dear Mr. Smith,

Many thanks for your kind letter of May 1. I received two letters also from Mr. W. C. Asbury and Mr. H. J. Rose, and I confirm you that I shall be very glad to visit the Esso Research Center on June 27, and to be able to meet some of your staff before my scheduled lecture.

With best personal regards, I am,

Very truly yours,

Giulio Natta

ESSO RESEARCH LIMITED

(Formerly Esso Development Company, Limited)

33 DAVIES STREET  
LONDON W.1

819A  
*John*  
Telephone  
MAYfair 7799

Cables  
Eurotech London

8th May, 1956

Professor G. Natta,  
Istituto Di Chimica Industriale Del Politecnico,  
Piazza Leonardo Da Vinci, 32,  
Milano,  
ITALY.

Dear Professor Natta,

Our people have recently shipped you by ocean freight a 5-gallon sample of isoprene. It bears the Esso shipping number 56-EL-220. An analysis gives the following information:

Isoprene (by freezing point)	95 wt. %
Conjugated Diolefin (by maleic anhydride)	96.4 wt. %
Inhibitor ( <u>tert</u> -butylcatechol)	225 ppm.

This material has been purified by extractive distillation with acetone, and the sample accordingly contains 0.0012 wt. % acetone.

We hope that you will find it of interest in your work.

Best regards,

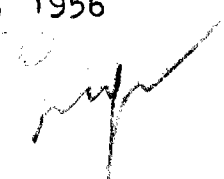
Yours very truly,

*P. V. Smith, Jr.*  
P. V. SMITH, JR.

cc. Dr. A. Bonesi

PVS/AT.

May 16, 1956

  
Mr. P. V. Smith, Jr.  
Esso Research Limited  
33 Davies Street  
L O N D O N W. 1 - England

Dear Mr. Smith,

Many thanks for your letter of May 8, and  
for your shipping us a 5-gallon sample of isoprene.

We appreciate very much your kindness.

With best regards,

Very truly yours,

Giulio Natta

460A

ESSO DEVELOPMENT COMPANY LIMITED

33, DAVIES STREET,  
LONDON, W.1.

Telephone :  
Mayfair 7799  
Cables :  
Eurotech, London

13th March, 1956.

Professor G. Natta,  
Istituto Di Chimica Industriale  
Del Politecnico,  
Piazza Leonardo Da Vinci, 32,  
Milano,  
ITALY

Dear Professor Natta,

I am happy to inform you that a five-gallon sample of isoprene will be shipped to you in the very near future. A typical analysis for such material is as follows:-

Isoprene (by freezing point)	95 wt.%
Conjugated diolefin (by maleic anhydride)	96.6 wt.%
Inhibitor (TBC)	230 ppm.

As I presume that it will have to be shipped by sea, it will probably take about a month for the sample to arrive in Milan.

I have also checked with our people on the concentration of 3-methyl + butene-1 in petroleum streams. Thermodynamic equilibrium data do not favour the formation of such olefins, even at very high temperatures. Analyses of catalytically cracked C<sub>5</sub> fractions show only 0.9 mole % of 3-methylbutene-1. Therefore, it appears that a direct synthesis would be required to produce olefins of this type.

Best regards,

Yours very truly,

P. V. Smith, Jr.  
P. V. SMITH, JR.

PVS/JEF



March 20, 1956

*John*

Mr. P. V. Smith, Jr.  
Esso Development Company Limited  
33, Davies Street  
L O N D O N , W K 1 . - England

Dear Mr. Smith,

I received your kind letter of March 13, and I thank you very much for your shipping to us five gallons of isoprene. You are very kind.

Many thanks also for the informations you gave me about the concentration of 3-methyl-butene-1 in petroleum streams.

With my best personal regards, I remain,

Very sincerely yours,

Giulio Natta

264 A

ESSO DEVELOPMENT COMPANY LIMITED

33, DAVIES STREET,  
LONDON, W.1.

Telephone :  
Mayfair 7799

Cables :  
Eurotech, London

14th February, 1956

Professor G. Natta,  
Istituto Di Chimica Industriale Del Politecnico,  
Piazza Leonardo Da Vinci, 32,  
Milano,  
ITALY.

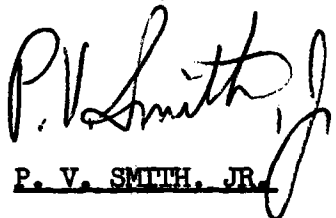
Dear Professor Natta,

I have now learned that the sample of piperylene (addressed to Dr. Pino) was shipped "Air Cargo" by Seaboard and Western Airlines (Way bill No. 219-131-670) on 5th January, 1956. It was delivered at Milan not later than 10th January, 1956.

We suggest, if it has not yet arrived, that you check with the Customs Office at Milan Airport. If you still have difficulty, please contact me here in London.

With best regards,

Yours very truly,

  
P. V. SMITH, JR.

PVS/AT.

194

February 22, 1956



Mr. P. V. Smith, Jr.  
Esso Development Company Limited  
33 Davies Street  
L O N D O N W. 1.

Dear Mr. Smith,

I received your letter of February 14. The sample of piperylene you very kindly sent to Prof. Pino is arrived some days ago in the Institute, owing to some customs troubles.

Thanking you for your kind interest in this matter, I send you my best personal regards,

Very sincerely yours,

Giulio Natta

ESSO DEVELOPMENT COMPANY LIMITED

33, DAVIES STREET,  
LONDON, W.1.

30th December, 1955.

Telephone :  
Mayfair 7799

Cables :  
Eurotech, London

Sample of 50% Piperylene Concentrate

Dr. P. Pino,  
Istituto di Chimica Industriale del Politecnico,  
Piazza Leonardo da Vinci 32,  
Milan.

Dear Sir,

During the visit of Mr. A.D. Green, of Esso Research & Engineering Company, and Dr. P.V. Smith, of this office, to you in October, a sample of crude piperylene was promised, for some of your studies in producing high melting polymers.

In response to this request, 2-litres (approx.) of this concentrate are being sent to you by air cargo from the United States, under shipping number CRD-1028-55.

So that you can recognize this sample easily, the container will bear an Esso label, identified as follows:

50% Piperylene Concentrate  
(E-58)  
CRD-1028-55      12/22/55

Analytical data of the sample are as follows:

<u>Components</u>	<u>Volume %</u>
Isoprene	1
Trans-Piperylene	31
cis-Piperylene	18
Cyclopentene	17
C <sub>5</sub> Olefin	~30

We trust that this sample will arrive in good condition, and we should be pleased if you would acknowledge its safe receipt to us.

We are looking forward also to having the opportunity, at some later date, of discussing with you the use you have been able to make of this sample, and whether we can be of any further assistance.

Very truly yours,

  
H. L. WEST.

HLW/JCC

Cc: Mr. F.W. Banes  
Mr. W.C. Asbury  
Mr. A.D. Green  
Dr. C.O. Tongberg  
Mr. A. Voorhies, Jr.

February 27, 1956

Mr. H. L. West  
Esso Development Company Limited  
33 Davies Street  
L O N D O N W.1. - England

Dear Mr. West,

I received some weeks ago your letter about the sample of piperylene you kindly sent to me at the Institute of Industrial Chemistry in Milan.

Owing to some customs troubles, we have got the sample only at the end of January 1956, and I have given now the sample to Professor Natta.

I thank you very much for your sample and I hope you will excuse me for the delay in answering to your kind letter.

Sincerely yours,

Piero Pino

ESSO DEVELOPMENT COMPANY LIMITED

33, DAVIES STREET,  
LONDON, W.1.

7th December, 1955.

836

*Supplied*

Telephone :  
Mayfair 7799

Cables :  
Eurotech, London

~~*[Handwritten signature]*~~

Prof. G. Natta,  
Institute di Chimica Industriale del Politecnico,  
Piazzo Leonardo de Vinci 32,  
Milan.

Dear Sir,

Thank you for your letter of November 29th. We are pleased to hear that you expect to be able to visit the Esso Research Center, and to give an Esso Research Forum lecture.

When the plans for your American trip become a little more firmly set, please let me know so that a satisfactory date can be arranged.

With best regards,

Yours very truly,

*P.V. Smith Jr.*  
P.V. SMITH, JR.

PVS/JCC

Cc: Mr. C.L. Brown  
Mr. W.C. Asbury.

678  
J.J. Grisdale

ESSO DEVELOPMENT COMPANY LIMITED

33, DAVIES STREET,  
LONDON, W.1.

Directors:

H. W. FISHER (U.S.A.)  
P. J. ANDERSON (U.S.A.)  
D. I. MAXWELL (U.S.A.)  
LEONARD SINCLAIR  
C. S. WINDEBANK

Telephone:  
Mayfair 7799

Cables:  
Eurotech, London

November 11, 1955.

Prof. G. Natta,  
Institute di Chimica Industriale  
del Politecnico,  
Piazzo Leonardo di Vinci 32,  
MILANO,  
Italy.

Dear Sir,

1 Gall Dicyclopentadiene

Please find enclosed No-Charge Invoice,  
No. NC-517 in connection with the above consignment,  
which will be air freighted to you on November 12,  
1955.

Yours very truly,  
ESSO DEVELOPMENT CO. LTD.

By: J.J. Grisdale  
J. J. Grisdale

JJG/GE  
Encl.

636  
December 15, 1955

*High*  
Mr. P. V. Smith, Jr.  
Esso Development Co. Ltd.  
33 Davies Street  
L O N D O N W.1. - England

Dear Mr. Smith,

Following up my letter of November 29, I inform you that I received the sample of dicyclopentadiene you kindly sent to me.

Thanking you very much I send you my best personal regards and best wishes.

Very sincerely yours,

G. Natta



**ESSO DEVELOPMENT CO. LTD.**

33, DAVIES STREET  
LONDON, W.1



Prof. G. Natta,  
Institute di Chimica Industriale DR.  
del Politecnico,  
Piazzo Leonardo di Vinci 32,  
Milano,  
ITALY.

Ref. No. NC-517

Date 2nd November, 1955.

1 gallon	<p>Dicyclopentadiene</p> <p>Free sample. Invoice for customs purposes only. Value for customs purposes £1.</p> <p><u>Flashpoint above 120°f</u></p> <p>Gross weight: <i>30 lbs</i></p> <p>Size of case: <i>14" x 10" x 7"</i></p>			
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ESSO DEVELOPMENT CO. LTD.

AWC/CZ

per. *[Signature]*

A. W. Cock

**ESSO DEVELOPMENT CO. LTD.**

**33, DAVIES STREET  
LONDON, W.1**

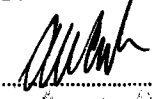
Prof. G. Natta,  
Istituto di Chimica Industriale DR.  
del Politecnico,  
Via Cassanese di Vinci 34,  
Milano,  
Italy.

Ref. No. 4-517

Date 2nd Nov 1954

<p>1 carton</p>	<p>isopentadiene</p> <p>1 ton weight.</p> <p>Invoice for cargo purposes only.</p> <p>Bill of lading for cargo purposes only.</p> <p>Backprint above line.</p> <p>Gross weight: <i>30 lbs</i></p> <p>Size of ctn: <i>14" x 10" x 7"</i></p>			
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**ESSO DEVELOPMENT CO. LTD.**

per 

ESSO DEVELOPMENT COMPANY LIMITED

33, DAVIES STREET,  
LONDON, W.1.

752  
High

Telephone :  
Mayfair 7799

Cables :  
Eurotech, London

arrivals  
ms

22nd November, 1955.

Professor G. Natta,  
Istituto Di Chimica Industriale Del Politecnico,  
Piazza Leonardo Da Vinci, 32,  
Milano,  
ITALY.

Dear Professor Natta,

As promised several months ago, we have shipped you a sample of dicyclopentadiene. It was sent by air freight (AZ 466, shipping number AWB 705354) on 12th November. By now, you should have it.

We hope that you will find it of interest to work with this very unusual diene. It is certainly a unique and readily available chemical raw material.

Best regards,

Yours very truly,

*P. V. Smith, Jr.*

P. V. SMITH, JR.

FVS/AT.

592  
Fujita  
November 29, 1955

Mr. P. V. Smith, Jr.  
Esso Development Company Limited  
33 Davies Street  
L O N D O N W. 1. - England

Dear Mr. Smith,

Referring to your letter of November 22, I thank you very much for your shipping of a sample of dicyclopentadiene. I received some days ago also your no-charge invoice, but till now I do not receive the sample. As soon as it will arrive, I inform you at once.

With best regards,

Very sincerely yours,

G. Natta

751

ESSO DEVELOPMENT COMPANY LIMITED

33, DAVIES STREET,  
LONDON, W.1.

Telephone :  
Mayfair 7799

Cables :  
Eurotech, London

21st November, 1955.

Professor G. Natta,  
Istituto Di Chimica Industriale Del Politecnico,  
Piazza Leonardo Da Vinci, 32,  
Milano,  
ITALY.

Dear Professor Natta,

It is our understanding from Professors Mark and Overberger that you may be visiting the United States between June and August of 1956. I have been requested, by our Dr. C. L. Brown, to extend an invitation to you to visit the Esso Research Centre of the Esso Research and Engineering Company during your trip, and to speak before the Esso Research Forum. This is a meeting attended by our scientists and engineers and is comprised of our people who are interested in the subject matter of the lecture.

Our guest speaker usually lectures at 10:15 in the morning, and we extend an invitation to remain for luncheon and for informal conversations with our professional people during the afternoon. We present our guest speakers with an honorarium of \$ 100.

Dr. Overberger has advised that Dr. Pino may accompany you to assist with language problems.

We sincerely hope that you both will be able to include this visit in your itinerary.

Yours very truly,

*P. V. Smith, Jr.*  
P. V. SMITH, JR.

PVS/AT.

591  
7/2/55  
November 29, 1955

Mr. P. V. Smith, Jr.  
Esso Development Company Ltd.  
33 Davies Street  
L O N D O N W 1 - England

Dear Mr. Smith,

Thank you for your kind letter of November 21,  
and for your invitation to visit the Essos Research Centre  
of the Esso Research and Engineering Company and to speak  
before the Esso Research Forum.

I received already several invitation to give  
lectures and to visit American Companies, and I have not  
yet arranged a definitive program. At any rate, I assure  
you that I shall do my best and I hope to be able to ar-  
range things so that one of the first visits will be to  
your Company, during my stay in the U.S.A.

With best personal regards,

Very sincerely yours,

G. Natta

# MONTECATINI

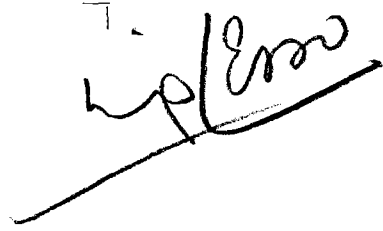
SOC. GEN. PER L'INDUSTRIA MINERARIA E CHIMICA  
ANONIMA - CAPITALE VERSATO L. 100.000.000.000

MILANO

SETTORE PROGETTI E STUDI

MILANO 22 Ott. 1958.  
VIA F. TURATI, 18  
TELEGRAMMI GABBROPROGETTI  
TELEFONI 6333 - 6334

Preg.mo Signore  
Prof. Giulio Natta  
Istituto di Chimica Industriale  
Politecnico di  
M i l a n o.



Egregio Professore,

a proposito della lettera di  
Asbury del 16 Ottobre, Le unisco copia del  
Wall Street Journal del 21 Agosto dove, contraria-  
mente a quello che il sig. Asbury dice, è detto che  
lo sviluppo del polipropilene è dovuto a Lei e alla  
Montecatini.

Cordialmente :



Bartolomeo Orsoni

Or/sl.

\*

## Jersey Standard Units To Make Petrochemical Plastics for First Time

### Plant to Produce Polypropylene Planned in Texas; Sales Pact With Spencer Chemical Set

By a WALL STREET JOURNAL Staff Reporter

NEW YORK—Standard Oil Co. (New Jersey) will enter the field of petrochemical plastics for the first time through two affiliates.

The product will be polypropylene, described by some chemists as the most significant plastic development since polyethylene.

Humble Oil & Refining Co., Jersey Standard subsidiary, will produce the polypropylene at a plant to be built at Baytown, Texas. The new plant is being designed with an initial capacity of 60 million pounds a year, which can be expanded to 100 million pounds a year. Cost of the plant, scheduled to go into operation late in 1960, was not disclosed. Humble has been making such petrochemicals as butyl rubber and toluene since World War II.

Marketing of the new product will be undertaken by the Enjay Co., a subsidiary of Esso Standard Oil Co., a Jersey Standard affiliate. Enjay will handle it in two ways, through its own marketing facilities in this country and abroad and through a special four-year sales agreement with the Spencer Chemical Co. Spencer also will market polypropylene through its market development and sales organization.

Polypropylene is made from refinery propylene gases. It can be used for molded articles such as housewares, films and sheetings, tank linings, fibres, electrical insulation, paper coating, pipes and plastic containers.

Market development quantities of polypropylene will be available from a ton-a-day pilot plant very soon, it was reported.

Kenneth A. Spencer, president of Spencer Chemical, said polypropylene will be a complementary addition to Spencer's polyethylene and nylon plastics.

Development of polypropylene was first announced several years ago by Dr. Giulio Natta

of the Milan, Italy, Polytechnical Institute. Dr. Natta's work was supported by Montecatini, big Italian chemical concern, and was based partially on discoveries in plastic processes made by the German chemist, Dr. Karl Ziegler.

This spring, Hercules Powder Co. opened a commercial polypropylene plant at Parlin, N.J. Hercules has a license from Dr. Ziegler and developed its own polypropylene process. The capacity of the Hercules plant has never been given officially but in the trade it is generally believed to be 20 million pounds annually.

What process Humble will use was not disclosed. But Morgan J. Davis, Humble president, said the company has been conducting extensive research on polypropylene. Similar work also has been done by Esso Research and Engineering Co., scientific arm of Jersey Standard.



↓

# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

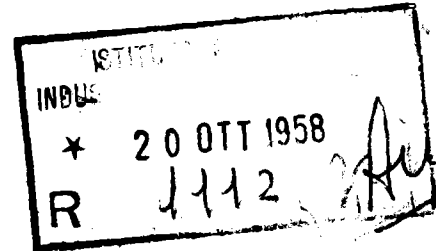
P. O. BOX 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)

*minute copie il 21/10/58*  
*- Orsoni*  
*- De Janda*

October 16, 1958



Prof. G. Natta  
Institute di Chimica Industriale  
del Politecnico  
Piazzo Leonardo de Vinci, 32  
Milan, Italy

Dear Prof. Natta:

You will recall that when I met with you and Mr. Giustiniani in Milan in July, I pointed out that the Humble Oil & Refining Company had decided to proceed with a polypropylene plant to be built at Baytown, Texas. This was officially announced by the Humble Oil & Refining Company on July 21 and this was followed by an announcement by the Enjay Company, Inc., who will market the polypropylene from Humble.

I should like to emphasize that our affiliates are independent companies and operate as such under the decentralization policy of the Jersey Company. I think this will help you understand why there is no reference to either the contributions of Professor Ziegler, of Montecatini, or of you good self or even of Esso Research and Engineering Company. As you know, we did considerable laboratory and pilot plant work which formed basis of this project. Although no reference to your work and that of Montecatini was made in these releases, I am sure that the scientific world has appreciated your many contributions and I am certain that there will be further recognition of your efforts as time goes on.

Very truly yours,

W. C. ASBURY

wca/cw  
CC: Mr. P. Giustiniani

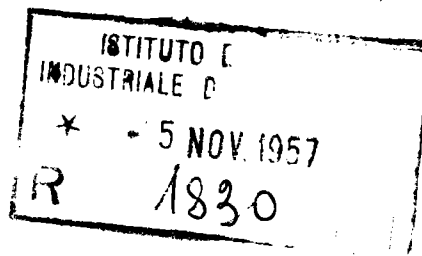


**ESSO STANDARD ITALIANA**

**ufficio pubbliche relazioni**

Geneva, 31 Ottobre 1957

Spettabile  
Segreteria del Prof. Natta  
Istitute di Chimica Industriale  
del Politecnico  
M I L A N O  
Piazza L. Da Vinci, 32



Vi inviamo a parte n. 500 buste relative  
agli inviti per la conferenza del dr. Sparks.

Il giorno 6 e 7 novembre Vi faremo perve-  
nire gli inviti.

Con i nostri migliori saluti

h. UFFICIO PUBBLICHE RELAZIONI

*Adrus*

NA/11

*Cuspi*

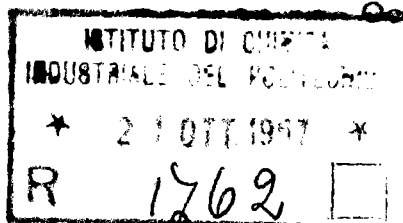
*(Invia a  
Dr. Chi...  
inviti per...  
arrivano!)*

# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. Box 51, LINDEN, N. J.

SCIENTIFIC LIAISON  
W. J. SPARKS  
SCIENTIFIC ADVISOR



Professor G. Natta  
Istituto di Chimica Industriale  
Del Politecnico  
Piazza Leonardo da Vinci, 32  
Milano, Italy

Dear Professor Natta:

In connection with the lecture on November 13, I have forwarded a copy of my talk to Dr. V. Cazzaniga, President of Esso Standard Italiana. He has volunteered to have someone in their organization translate the lecture into Italian and to prepare it for projection. We are hopeful that Dr. Cazzaniga will get a copy to you as soon as possible.

The material which has been prepared for presentation on November 13 is not suitable for publication. I would be pleased to talk with you at that time concerning the possibility of specially preparing an article which might be printed in one of the Italian journals.

Very truly yours,

W. J. SPARKS

WJS:mw

c/c: Dr. V. Cazzaniga

27 settembre 1957

Ufficio Pubbliche Relazioni della  
Esso Standard  
All'attenzione del Sig. ALANO  
via Assarotti, 40 Genova

In relazione al colloquio avuto con il nostro Ing. Manca nella scorsa settimana Vi confermiamo da parte del Prof. Natta che la conferenza del Prof. Sparks può essere tenuta alle ore 17,30 di mercoledì 13 novembre presso l'Istituto di Chimica Industriale del Politecnico. Il professore gradirebbe che la riunione avesse il carattere di un seminario scientifico con proiezione del film secondo la Vostra richiesta e discussione finale fra il conferenziere e tutti quanti possono essere interessati a maggiori schiarimenti. Allegato alla presente Vi trasmettiamo un esempio del cartoncino-invito che di solito noi facciamo preparare e distribuiamo per le conferenze tenute nel nostro Istituto. E' opportuno che Voi provvedeste a :

- 1 - Trovare il proiettore per la proiezione del film
- 2 - Fare preparare gli inviti e inviarcene circa 500 per la distribuzione.
- 3 - Comunicarci il titolo esatto della conferenza.

Gradite i nostri saluti

p. Il Direttore dell'Istituto

# ESSO RESEARCH AND ENGINEERING COMPANY

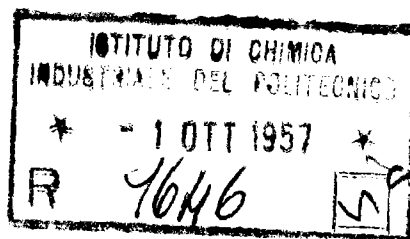
(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 51, LINDEN, N. J.

SCIENTIFIC LIAISON  
W. J. SPARKS  
SCIENTIFIC ADVISOR

September 24, 1957

Professor G. Natta  
Istituto di Chimica Industriale  
Del Politecnico  
Piazza Leonardo da Vinci, 32  
Milano, Italy



Dear Professor Natta:

Thank you for your very kind letter of September 13. I shall be deeply honored to give a lecture at the Polytechnic Institute on November 13.

I hope to have an Italian translation in about two weeks. It will be forwarded to you immediately thereafter. It was very kind of you to suggest that a member of your staff could revise it from the point of view of language. I hope to be able to project the translation simultaneously with the oral presentation,

Sincerely yours,

W. J. SPARKS

WJS:mw

*W. J. Sparks*  
*for*  
*W. J. Sparks*  
*for*  
*for*  
*for*

*Amor*  
September 13, 1957

Rif. N. 1445/rl

Mr. W. J. SPARKS, Scientific Advisor  
Esso Research and Engineering Co.  
Scientific Liaison  
P.O. Box 51  
LINDEN - N. J. - U. S. A.

Dear Mr. Sparks,

please excuse my delay in answering your kind letter of August 5, but I have been back from a vacation period only in these days.

I am very glad to know from your letter that you will come to Milan to give a lecture on physical and chemical behavior of rubbers as related to constitution and configuration. I shall appreciate if you want to give your lecture at our Polytechnic Institute. I shall invite, besides the University people, also the members of the Lombard Section of the Italian Chemical Society.

The date that you indicated is agreeable for us. If you wish to send to me the Italian translation of your lecture, some of my staff could revise it from the point of view of language, if you think it is useful. I would see also if your lecture may be published on some Italian Review.

Please confirm to me, a fortnight before your coming, the exacte date of your lecture, so that I may distribute the invitations to the interested people.

Looking forward to seeing you, with best regards, I remain,

Very sincerely yours,

Giulio Natta

Mr. W.J. SPARKS

Esso

Dear Mr. Sparks,

La prego di scusarmi se rispondo con ritardo alla Sua lettera del 5 agosto, ma soltanto ora sono rientrato a Milano dopo un periodo di vacanza.

Sono molto lieto di apprendere che Lei verrà a Milano e che potrà fare una lettura about physical and chemical behavior of rubbers as related to constitution and configuration. Sarò soprattutto lieto se Lei vorrà fare questa conferenza presso il Politecnico a Milano e, in tal caso, inviterei - oltre all'ambiente universitario - anche i Soci della Sezione Lombarda della Società di Chimica Italiana.

La data da Voi scritta ~~è~~ va bene. Nel caso che Voi poteste mandarmi in visione la traduzione italiana, qualcuno del mio Istituto potrà correggerlo dal lato linguistico, se lo riterrete utile, ed eventualmente potrà anche esaminare se tale Vostra lettura potrà essere pubblicata su una rivista italiana.

Vi prego di confermarmi quindi giorni prima la data precisa del Vostro arrivo, affinché possa disporre per gli invitati per la Vostra conferenza alle persone interessate.

Very truly yours,

20 No 7 - 62 a.

August 26th, 1957

Mr. W.J. SPARKS  
Esso Research and Engineering Co.  
P.O. Box, 51  
LINDEN, N.J. ( USA)

Dear Mr. Sparks,

*of 5.8.57*  
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 his return.

He will be very glad if you will hold the lecture on physical and chemical behavior of rubbers as related to constitution and configuration.

With best wishes,

L. Einaudi (secretary to Prof. Natta)

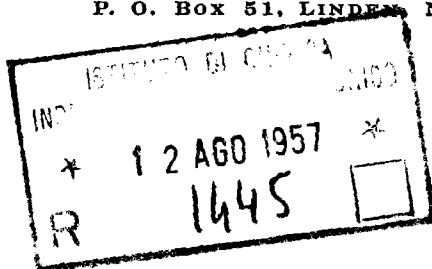


# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. Box 51, LINDEN, N. J.

SCIENTIFIC LIAISON  
W. J. SPARKS  
SCIENTIFIC ADVISOR



August 5, 1957

Prof. G. Natta  
Institute di Chimica Industriale del Politecnico  
Piazzo Leonardo de Vinci, 32  
Milano, Italy

Dear Prof. Natta:

Dr. C. L. Brown has indicated that you have kindly invited me to give a talk in Milano next November. I regret having missed seeing you in Paris. I did, however, have the pleasure of hearing your excellent lecture before the Congress.

My talk will be on the general subject of rubber-like behavior. It will cover what we have learned about physical and chemical behavior of rubbers as related to constitution and configuration. The observations are based largely on the twenty years of research carried on by Esso Research and Engineering Company on butyl rubber and polyisobutylene.

My presentation will be in English. However, I expect to have a View-Graph translation in Italian. This will be accompanied by slide projections which should assist in making it understandable to Italian speaking scientists interested in the subject.

If agreeable to you, we prefer Wednesday, November 13, as the date for my visit to Milano. A biographical resumé is enclosed for your information.

Very truly yours,

W. J. SPARKS

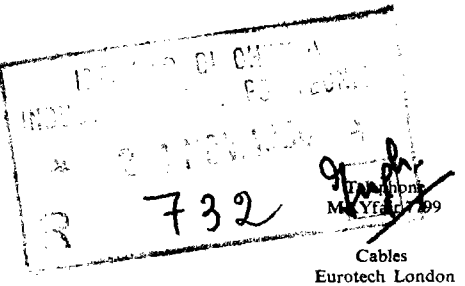
wjs/cw  
Encl.

CC: Dr. W. R. F. Guyer

ESSO RESEARCH LIMITED

(Formerly Esso Development Company, Limited)

33 DAVIES STREET  
LONDON W.1



Professor G. Natta,  
Istituto di Chimica Industriale  
del Politecnico,  
Piazza Leonardo da Vinci 32,  
Milan,  
ITALY.

22nd November, 1956.

Dear Professor Natta,

Thank you for your letter of the 16th November. We are sorry that we may not be able to see you in Milan on the 10th December. However, we also plan to be in Paris on the 26th November, so we shall look forward to seeing you at that time.

With best personal regards,

Yours sincerely,

Paul V. Smith, Jr.

PAUL V. SMITH, JR.

PVS:PO

November, 27, 1956

Mr. Paul V. SMITH, JR  
"Esso Research Limited"  
33 Davies Street  
LONDON, W.1

Dear Mr. Smith,

I received your letter of November 22 that arrived after my starting to Paris. I am very sorry to have been obliged to anticipate my return to Milan, so that I have not been able to meet you on 26th. November.

With best regards,

Yours sincerely,

(Prof.G.Natta)

November 16, 1956

Mr. Paul V. Smith, Jr.  
Esso Research Limited  
33 Davies Street  
L O N D O N W.1 - England

Dear Mr. Smith,

Referring to your letter of November 6, I am sorry but I cannot assure you if I shall be in Milan on Monday, December 10. In fact, I have in program several travels during the first fortnight of December, and I do not know, till now, if I shall be able to come back to Milan on December, 10.

I wish inform you, however that I shall be in Paris from November 23 to 26, to attend the Congress of Industrial Chemistry. If Dr. Guyer will have an occasion to come to Paris, I shall be glad to see him.

With best regards.

Yours sincerely,

Giulio Natta

# ESSO RESEARCH LIMITED

(Formerly Esso Development Company, Limited)

33 DAVIES STREET  
LONDON W.1

Telephone  
MAYfair 7799

Cables  
Eurotech London

625

~~Esso~~ Esso

6th November, 1956.

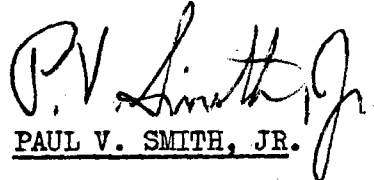
Prof. G. Natta,  
Istituto di Chimica Industriale  
del Politecnico,  
Piazza Leonardo da Vinci 32,  
Milano,  
ITALY.

Dear Professor Natta,

At the end of this year I shall be returning to the United States and our Dr. Guyer will succeed me as Esso's technical representative in Europe. I would like very much for Dr. Guyer to have the opportunity of meeting you prior to my departure, so I am wondering if we might stop by for a short visit on the morning of Monday, 10th December, at your Institute.

As we shall be travelling on a very tight itinerary, I shall appreciate hearing from you at your earliest convenience, so that this visit could be fitted in with the many others we are planning to make.

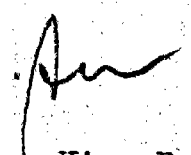
Yours sincerely,

  
PAUL V. SMITH, JR.

PVS:PO

850A

July 27, 1956



Mr. W. C. Asbury, Vice President  
Esso Research and Engineering Co  
15 West 51st Street  
NEW YORK 19, N. Y., U. S. A.

Dear Mr. Asbury,

I am sorry that my busy trip through the States did not permit me to write to you before my coming back to Italy, and to thank you very much for your kindness.

Mrs. Natta ~~expresses~~ ~~her~~ ~~remembrance~~ of the lovely time she spent together with Mrs. Asbury, and we do hope to have soon the pleasure to see you both in Italy.

Our best remembrance to Mrs. Asbury and you with our best regards and thanks.

Very sincerely yours,

Giulio Natta

ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

15 WEST 51ST STREET, NEW YORK 19, N. Y.

W. C. ASBURY  
VICE PRESIDENT

June 20, 1956

Professor Giulio Natta  
Mayflower Hotel  
Washington, D.C.

Dear Professor Natta:

I understand that as a result of understandable complications in your travel plans, you and Mrs. Natta are going to have to shorten your time with us on Wednesday, June 27, 1956.

Dr. C. L. Brown, who has been handling arrangements with people in Mr. Lucini's office, suggested that a car pick up Mrs. Natta at the Hotel Pierre and bring her to our home in New Jersey, with the understanding that she is anxious to be back at the hotel at 3:00 p.m. After thinking this over, Mrs. Asbury thought that this schedule might be too arduous for Mrs. Natta and Mrs. Asbury would like to suggest an alternative, i.e., that Mrs. Asbury pick up Mrs. Natta at the Hotel Pierre at 10:00 a.m. or thereabouts, show her some portion of New York City and entertain her for lunch. She and Mrs. Asbury would be returned to the hotel before 3:00 p.m. In addition, if Mrs. Natta has any friends with her who would like to go along, that would be fine. We do not know whether Mrs. Giustiniani is with Mrs. Natta but if she is Mrs. Asbury would be most happy to have her join them.

Please let us know Mrs. Natta's wishes at your earliest opportunity.

Sincerely,

WCA:C  
cc-Hotel Pierre

PROMEMORIA

988 H  
28 Maggio, 1956

Data, .....

Ing. Piero GIUSTINIANI

*Am. Siro*

per il Signor .....

~~Ing. GRSCHI~~  
~~Prof. JATTA~~

Oggetto: Trattativa Esso Research licenza polipropilene -

Ho esaminato la lettera di Mr. Asbury del 24 m.o. a Lei diretta. La Esso aveva ottenuto finora (salvo la "option sum" raddoppiata e il "know how" obbligatorio) condizioni forse migliori della Union. Infatti:

	<u>ESSO</u>		<u>UNION</u>	
	polipropilene plastici		polipropilene plastici	
comp. licenza				
option sum (non recuperabile)		\$150,000.-		\$75,000.-
down payment	\$1,000,000.-	\$1,250,000.-	\$1,000,000.-	\$1,500,000.-
di cui recuperabile	75%	100%	50%	100%
deduzione royalties	50%	50%	50%	50%
royalty correnti:				
a) polimeri		2%		2%
b) articoli formati		3 1/2%		3 1/2%
know how Montecatini		\$500,000.- (obbligatorio)		\$500,000.- (facoltativo)
know how fine al		1/7/58		1/7/57
uscita us. impianti (data limite)		1/1/58 (?)		1/1/58 (?)
obbligo segreto fino al		1/7/68		1/7/67
clausole a parte	a) garanzia produzione		a) campo anche polimeri inferiori 2000 p.n.	
	b) lubrificanti nei cog pe - esportabili in tutti i paesi del mondo		b) stirolo	
	c) nessun obbligo per Esso di darci in licenz za eventuali suoi brev vetti dominanti esistenti		c) 1-butano	
			d) fibra polipropilene	
			e) processi polimerizza- zione proprietà Mon- tecatini	
durata offerta		31/5/56		30/6/56



**PROMEMORIA**

per il Signor.....

..... pag. 2)

Preferrei di prolungare la validità della ns/ offerta alla Esso di due settimane, ossia fino al 15 giugno p.v., insistendo opportunamente sulla ns/ impossibilità di arrivare a fine giugno come richiesto da Esbury (a meno di procrastinare la scadenza della ns/ offerta alla Ufficio al 10-15 luglio).

Se la Esso accettasse non so però come saremo in grado di preparare il contratto definitivo per il 15 giugno, visti anche i molteplici altri nostri impegni di lavoro a brevissima scadenza e dovendo trattare e definire con la Esso anche un certo numero di punti secondari.

Per la "preliminary disclosure" dell'art. III/1 potremo fornire a Esso le nostre "current preferred techniques" solo se non brevettate dopo l'agosto 1955.

In questo caso Esso deve attendere i soliti dieci mesi dalla data di deposito della nostra domanda di brevetto in Italia prima di avere diritto alla suddetta informazione.

Con ossequio.



761A  
Am

# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

15 WEST 51ST STREET, NEW YORK 19, N. Y.

W. C. ASBURY - VICE PRESIDENT

April 30, 1956

Professor G. Natta  
Institute di Chimica Industriale del  
Politechnici  
Piazzo Leonardo de Vinci, 32  
Milano, Italy

Dear Professor Natta:

We enjoyed seeing you in Milano during our recent visit and wish to take this opportunity to thank you and Mrs. Natta for the very pleasant luncheon we had in your home. Our group is still talking about the delicious luncheon that Mrs. Natta prepared on such short notice.

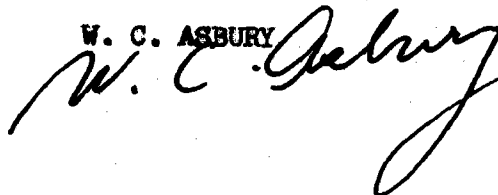
Dr. Brown is writing you directly regarding your visit to the Esso Research Center on June 27. Mrs. Asbury would like very much to entertain Mrs. Natta during your visit, and we would like to propose the following program for consideration by you and Mrs. Natta.

The car would pick up you and Mrs. Natta at the hotel and bring you to the Esso Research Center. You would get out and go to see Dr. Brown and the car would take Mrs. Natta to our home where Mrs. Asbury would be waiting for her. Mrs. Asbury would then take her on a trip through New Jersey and would take her to lunch. If you are then both free for dinner, we would suggest that the car take you from the Esso Research Center with Dr. Brown to my home, which is not very far away, and we would all go to dinner that evening.

I would appreciate it if you would discuss this with Mrs. Natta and let us know whether Mrs. Asbury and I could have the pleasure of a visit of Mrs. Natta and yourself.

Very truly yours,

W. C. ASBURY



WCA:C

502  
May 9, 1956

Mr. W. C. Asbury, Vice President  
Esso Research and Engineering Co  
15 West 51st Street  
NEW YORK 19 - N.Y. - U.S.

Dear Mr. Asbury,

Many thanks for your very kind letter of April 30. I appreciate very much the pleasant program for the visit to the Esso Research Center on June 27, and Mrs. Natta thanks very much Mrs. Asbury for the gracious invitation to your home.

Looking forward to seeing you soon, I send you my kindest regards also to Mrs. Asbury.

Very truly yours,

Giulio Natta

## ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 51, LINDEN, N. J.

Am.

CHEMICALS RESEARCH DIVISION

W. J. SPARKS  
DIRECTORH. J. ROSE  
ACTING ASSOC. DIRECTOR

April 10, 1956

Prof. G. Natta - U. S. Visit

Dr. H. Mark  
Polytechnic Institute of Brooklyn  
99 Livingston Street  
Brooklyn 1, New York

Dear Dr. Mark:

In the absence of Dr. Sparks, I am taking the liberty of replying to your letter of April 4 to him regarding the forthcoming visit of Professor Natta to the United States.

We are exceedingly happy that Professor Natta will be able to visit us at the Research Center and your suggested date of June 27 is entirely satisfactory. We are also cognizant of the financial burden involved in Professor Natta's visit and are anxious to do our part in defraying these costs.

All of us here at Esso have been greatly impressed with the work of Professor Natta and his associates. We are looking forward with great pleasure to his visit to the United States and, particularly, to his visit to our Laboratories.

Very truly yours,

  
H. J. ROSE

HJR:mw

May 9, 1956

Dr. H. J. Rose  
Acting Assoc. Director  
Chemicals Research Division  
Esso Research and Engineering ( )  
P.O. Box 51  
L I N D E N = N. J. = U. S. A.

Dear Mr. Rose,

Professor Mark let me have your very kind letter of April 10, concerning my forthcoming visit to the United States.

I am looking forward to visiting the Esso Research Center on June 27 and I thank you very much for your very kind words about our work.

With kindest regards.

Very truly yours,

Giulio Natta

MONTECATINI

Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

AV/MA

*Carlette  
Ess*

11 Aprile, 1956

Data,

647  
A

PROMEMORIA

Ing. Piero GIUSTINIANI

per il Signor .....

• p.c. Ing. ORSONI

~~Prof. NATA~~

Oggetto: Trattative Esso Research licenza poli-  
propilene -

Allego lettera pervenutami oggi  
da Mr. Wheland della E.R. che riassume i punti di  
minore importanza del contratto da noi discussi  
ieri con i Signori della Esso Research.

Con ossequio.

*Carlette*

all/

Dr. Ing. GIUSEPPE DE VARDA  
S.p.A. Montecatini  
Via F. Turati, 18  
M i l a n o

Londra ESSO RESEARCH  
pa A  
brevetti e contratti

Whelan collaborative New York di  
Asbury per affari lic. e contratt.

Vicepresident  
ESSO RESEARCH

Tecnico Esso  
Colleghiamento  
visita laboratori  
ecc.

April 11th, 1956

Dear Sir,

This is a memorandum on our meeting of April 10 at your offices at which were present for Montecatini yourself, Prof. Natta and Dr. Orsoni and in our group Messrs. Asbury, Tyson, Smith and the writer.

We discussed your license form for polypropylene and made the following points :

1. Art. I -

- a) The expression "within the licensed field" seems to be unduly narrow. We understand this will be replaced by an expression such as "applicable to the licensed field".
- b) The licensed field in 5 B seemed to be confined to matters disclosed in listed Pool Applications Schedule A. This would result in the entire grant being so limited and would nullify the rights under future inventions. We understand that this was not intended and that 5 B would be clarified on this point. This might be done by replacing "as disclosed..Schedule A" by -, "said catalysts and/or promoters being of the general type disclosed in listed Pool Applications Schedule A. Prof. Natta also said that "metal alkyl" should be enlarged to include -metal-hydrogen linkages.
- c) We requested that the Licensed Field be extended to include the use of Polypropylene in normal petroleum products such as oils, greases and the like. We understand this may be agreeable to you.

2. Art. III-

- a) We pointed out that par.1 does not include the material which we discussed on the previous day as being available to us for the option payment. We suggest that this material should include, in addition to the applications in Schedules A, B and C.
  - (i) a written description of the techniques apparatus and processes used by Montecatini for the preparation of Polypropylene including the prepared embodiments of the process, such as the two or three best catalysts with the optimum operating conditions for each, representative data on the results, such as, yield, product quality and the like and limitations, if any, on the nature of the feed stock, materials of construction and such other information as may be required for an economic and technical evaluation of the process.
    - (ii) the right to witness an actual performance of the process.
    - (iii) Sufficiently large samples of the product to enable us to evaluate its principal uses.

b) Paragraph 2 does not include knowhow beyond January 1, 1956. We understood from our previous discussion that we would receive knowhow for a reasonable period in the future which we felt should coincide with the period for future patent rights. We also understood that under par. 2 we should be given access to Montecatini's commercial operation for said period and design and construction information developed by Montecatini for its own plant. We understand that paragraph 2 may be suitably revised.

3.) Art. IV -

- a) We asked that some definite time limit be considered on the secrecy obligation. A period of 10 years from receipt of information was suggested. In the Ziegler license, the same provision has a time limit of 5 years.
- b) We asked that a suitable limitation be placed on paragraph A) of Art. IV) so that it will apply only to those suppliers who receive process information.

4. Art. V

- a) We asked that the <sup>option</sup> period be at least 6 months. In order for the license to be of value to us we must have assurance that it will be used by one of our manufacturing affiliates. To obtain this we must be able to present to our affiliates a full story on the process with firm estimates on capital investment, operating costs, cost of product, market potential, selling price and the like, as well as, assurance of our ability to design and supervise construction of a plant.

To do this we must repeat much of your work in the laboratory and run a pilot operation in order to secure process design and plant construction data. After we present our story, our Affiliates must examine their position with respect to plant programs, raw material suppliers, market availability and the like. All this cannot possibly be done in less than 6 months.

- b) We agreed that the license should cover at least U.S.A. and Canada.
- c) We did not discuss the blanks in par. 1 of Art. V.

5. Art. VI

We suggested the possibility of a paid up license analogous to Ziegler's provision for a paid up license after payment of running royalty for 15 years after commencements of operation.



- 3 -

We pointed out that if your license provided for payment of royalty only under issued patents we could understand the absence of a fixed period but since it requires payment under patent applications as well, we felt that the Ziegler type provision was analogous and more equitable. You agreed to consider this question.

6. Art. VII - Export

In confirming your intention to bar exports to countries where you have licenses, you indicated that you have no commitments yet in South America but that you would prefer not to discuss the European situation in any detail.

7. Art. XI - Licensees Invention

We explained that we would be unwilling to give patent grantbacks where we have already paid a large sum for the license. We should be willing to give a non-exclusive license in Germany or Italy as in XI.2. This was acceptable to you and you will consider our views of the general grantback of XI.1.

8. Art. XIII - Termination

We wanted a right as licensees to terminate the agreement. You regarded this as undesirable but would consider it.

9. Most Favoured Nation Clause

You agreed to include a clause of this nature and will submit a draft for consideration.

10. Hold Harmless Clause

We explained the provisions of the Ziegler agreement under which the Licensee is partially protected against the danger of being sued for infringement by others. This involves inter alia a cessation of royalty payments pending suit, a credit of royalties against litigation costs. Complementing this is a provision for adjustment of royalty under the license up to 50% to take care of the necessity of paying royalty to a third party. You agreed to include provisions of this nature and will submit a draft.

11. Patent Enforcement Clause

You agreed to submit a clause of this nature under which we could cancel or suspend royalty payment if, and for the period, your patents are infringed by others.

12. Guarantees

We explained the type of guarantees which we normally give with our processing licenses. You regarded your license as essentially a patent license and said that since we would have access to your commercial operation and your design and construction information, you could not see any reason

./.

for a guarantees.

I trust you will find the foregoing an accurate summary of our discussion.

In closing, may I say that we were gratified by the congenial and cooperative manner in which you conducted our discussion.

Yours very truly,

*P.J. Whelan*

P. J. WHELAN

J.M.

# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. Box 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)

March 12, 1959

Mr. P. Giustiniani  
Montecatini  
Via F. Turati 18  
Milan, Italy

Dear Mr. Giustiniani:

I believe that the letters I have sent to Prof. Natta on C6 epoxides and the enclosed letter on the A.M. alcohol process completes with one exception the items that Mr. Murphree and I agreed to look into at the meeting in Milan on January 24. The exception is a method for making 2-ethylhexanol. Since returning to the United States, we have discussed this with our technical people who feel that the process is not as well developed as they would like to see it and that they would prefer that we not send information at this time. We are going to keep your interest in mind, however, and will take another look at the process later. I am sure you will agree that there is no point in passing to Montecatini information which is not complete.

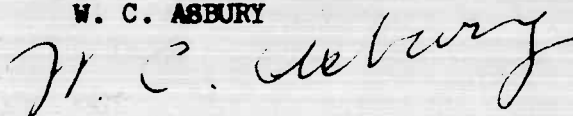
As I indicated in my letter of March 11 on the A.M. alcohols, we are expecting that you will send us comparable data on Montecatini's A.M. alcohol process.

During the meeting, you also offered to send us additional information on the process covered in Montecatini's Belgium patent 554,184 on the oxidation of para-xylene. I am looking forward with interest to receipt of such information.

With best personal regards.

Very truly yours,

W. C. ASBURY



wca/cw

7/4 : data copia a Ing. Ballabio, ing. De Varda, Ing. Orsoni, Prof. Natta

W. C. ASBURY  
P. O. BOX III  
LINDEN, N.J.

*Cartella  
Esso*

February 1, 1960

106

Prof. G. Natta  
Institute di Chimica Industriale del Politecnico  
Piazzo Leonardo de Vinci, 32  
Milano, Italy

Dear Prof. Natta:

I want to express my appreciation for the many courtesies that you and Mrs. Natta extended to the Murphrees and myself while we were in Milano. It was a great pleasure for us to be in your home and to visit with your fine family.

It was a very gratifying experience to go to La Scala and see the opera and ballet there. It was very thoughtful of Mrs. Natta to take me thru your beautifully situated box at La Scala. I enjoyed every moment of it thoroughly.

You both will be interested to know that I ran into trouble with Milano fog on Sunday and ended up taking a bus to Torino. The bus driver did not know his way too well and got lost in the outskirts of Torino but we finally made it to the airport and had a good flight to Frankfurt.

We are all happy to see that you are looking and feeling better and we hope that you will take care of yourself and not let your work and your travels get you down again. I would be interested to learn if you decide to go to Moscow. I am sure it will be an interesting experience.

Mrs. Asbury joins me in sending our best wishes to you both. She is naturally sorry that she could not have seen you both in Milano but she was busy working with her daughter and her newest grandson in Boston.

Once again, many thanks and best wishes for the future.

Sincerely yours,

*W. C. Asbury*

wca/cw

*Carbelle Esso*

Feb. 2, 1960

Dr. W. C. Asbury, Vice President  
Esso Research & Engineering Co  
P.O. Box 111,  
Linden, N. J. (U. S. A.)

our ref. 85/1v

Dear Dr. Asbury,

on your last visit to Milan, Dr. Giustiniani gave you a sample of an ethylene-propylene copolymer. Its vulcanization may be carried out by different methods: one of them is based on the use of peroxides.

The method described in the herewith enclosed sheet, is referred to the use of dicumyl peroxide, even if this peroxide is not quite satisfactory. Nevertheless, I pointed out this method to you, because dicumyl peroxide is an easily available product in U. S. A.

Hoping to see you in Italy again soon, I send you my kindest regards.

G. Natta

*End/*

The polymer we sent has a Mooney viscosity: 50 ML-1-4.  
It may be vulcanized at 165°C for 30' with the recipe:

C-23	100(parts in weight)
carbon black HAF	50 " " "
dicumyl peroxide	2,6 " " "
sulphur	0,3 " " "

With this recipe, the following characteristics of the vulcanizate are obtained:

Tensile strength	180	Kg/cm <sup>2</sup>
Elongation at break	450	%
Modulus at 300%	90	Kg/cm <sup>2</sup>
Residual elongation (tension at 200% for 1h., measure 1 min, after removal)	8	%

22 Febbraio 1960

dV/ma

*Contella  
Esso*

Ing. Piero GIUSTINIANI

• p.c. Ing. ORSONI  
Prof. NATTA

*///*

Oggetto: Catalizzatore Esso -

Trasmetto quanto scrive Toulmin in merito ai claims sul catalizzatore concesso alla Esso.

Occorre documentarsi con delle prove supplementari per poter controbattere al più presto che la presenza di titanio libero nel prodotto di riduzione del tetracloruro di titanio con titanio metallico è critica.

In altre parole occorre dimostrare che la presenza di questo titanio non esercita un effetto attivante sulla superficie di detto catalizzatore per quanto riguarda la polimerizzazione del butene ma specialmente quella del propilene.

E' importante che queste prove vengano condotte con la necessaria tempestività lasciando indietro, se necessario, altri lavori di ricerca purchè non siano stati richiesti da Brev.

Con ossequio.

*[Handwritten signature]*

all/

+ l'affermazione

ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

Telephone  
HYDe Park 7030

Cables  
Eurotech London

PATENTS AND CONTRACTS  
DEPARTMENT

ALL CORRESPONDENCE  
TO BE ADDRESSED TO  
THE MANAGER

*Handwritten signature and scribbles*

TL-628-61

27th November, 1961.

Professor G. Natta,  
Istituto di Chimica Industriale del Politecnico,  
Piazza Leonardo da Vinci, 32,  
Milano,  
ITALY.

973

Dear Professor Natta,

It was awfully good to hear from you in September and to note that your operation was successful. We are all most pleased to know about it. I am expecting to be in Italy later on this week and if you are in Milan I would like very much to see you. Dr. A. Barbieri of our Esso affiliate in Genoa may contact you regarding a possible visit. In any case I hope to see you, perhaps on Thursday. *(Venerdi 30.11.1961)*

With best wishes,

Sincerely yours,

*Ralph Hill*

R.M. Hill.

RMH/LP



*Corbella  
Esso*

April 3, 1963

Dr. Ralph M. Hill,  
ESSO Research Ltd.,  
50 Stratton Street,  
London W.1. (Inghilterra)

our ref.271/lv

Dear Doctor Hill,

Thank you for your letter of March 29.

Prof. Mazzanti will be in Toronto from May 7 to 10. After that, he will go to Washington and should be glad to visit your laboratories at Linden about on May 14.

If you, or other chemists of ESSO, participate in the Toronto meeting, you might arrange directly with Mazzanti, the date of his visit to Linden.

With kind regards,

Giulio Natta

ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

Telephone  
HYDe Park 7030

Cables  
Eurotech London W1

DR. RALPH M. HILL

TL-187-63  
March 29, 1963

Professor Dott. G. Natta  
Istituto di Chimica Industriale  
Del Politecnico  
Piazza Leonardo Da Vinci 32  
Milano, Italy

271  
1 11.11.63

Dear Professor Natta:

Thank you for your letter of February 28th, conveying the news that you would be unable to attend the meeting of the Society of Plastics Engineers in Los Angeles, California. I was certainly sorry to hear this, but your health is certainly more important.

Your suggestion that Professor Mazzanti might wish to visit the Esso Research Center in Linden was appreciated. As I understand it he expects to attend a meeting in Toronto, Canada in April. We would indeed be pleased to have him visit our facilities at Linden and meet and talk with some of our research people there. I expect to be in Italy next week and perhaps I can contact you or Professor Mazzanti by telephone regarding a visit to Linden.

*Mazzanti*

However, as time is perhaps short, if Professor Mazzanti is able to visit Linden, perhaps it would be advisable for him to contact Dr. B. C. Belden directly at the following address:

Esso Research and Engineering Company  
P.O.Box 215  
Linden, New Jersey  
Telephone: Linden 474-0100, Ext. 3413

Best regards,

Sincerely yours,

*Ralph Hill*  
R. M. Hill

RMH:cn

28.2.1963

*Joseph  
Carbelle  
Esso*

Mr. R.M. Hill

ESSO RESEARCH LIMITED

10 Stratton Street

London W.1 - Inghilterra

our ref.N.156/r1

Dear Doctor Hill,

many thanks for your kind letter of January 15. Following my letter of January 10, I wish to confirm you that, unfortunately, <sup>my doctors</sup> my doctors have discouraging 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 coworker Prof. Mazzanti, will go to the States. I think that, if you like it, he will come ~~and see~~ the Esso Research Center in Linden. He will certainly have no time to hold a lecture but he will discuss on arguments of 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

ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

Telephone  
HYDe Park 7030

Cables  
Eurotech London W1

*Handwritten signature/initials*

DR. RALPH M. HILL

TL-37-63  
January 15, 1963

Professor Dott. G. Natta  
Istituto di Chimica Industriale  
Del Politecnico  
Piazza Leonardo da Vinci 32  
Milano, Italy

Dear Professor Natta:

Thank you for your letter of January 10th. I can well understand how you might not wish to present a lecture at the Esso Research Center. Nevertheless, if your schedule would permit you to visit the Research Center in Linden our people there would very much like to have you. In such a case it would merely involve discussion with a small number of people.

Once again, I hope you have a very fine visit to the States and if you could visit Linden please let me know.

Sincerely yours,

Ralph Hill

R. M. Hill

*156*

RMH:cn

*Handwritten notes on the left margin:*  
Linden  
to be  
red  
with USA  
AGS  
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*Large handwritten notes at the bottom:*  
Suntore  
set  
anche  
Piacenti  
nel  
ma  
creare  
Dimitri  
Linden  
conferenza  
Linden  
X

January 10, 1963

*L. Natta*

our ref. 22/eg

Dr. R.M. Hill  
ESSO Research Ltd.  
50 Stratton Street  
London W.1. (Inghilterra)

Dear Mr. Hill.

Thank you very much for your kind letter of January 2.

With regard to a possible visit to the Linden Laboratories, which I already visited in the past, I wish to inform you that the schedule of my journey has not been made yet; therefore I do not know whether, during a possible stay in the New York area, I have time enough to come to Linden.

Owing to a cause beyond control, I have been compelled to give up all the invitations to hold lectures, from several institutions in the States. Therefore, in order to avoid a different behaviour with respect to other American friends, I shall have to give up also your invitation, which however was very much appreciated.

Thanking you very much again, I send you my kindest regards, and best wishes for the new year.

G.Natta

ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

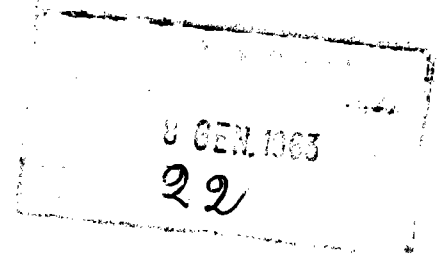
Telephone  
HYDe Park 7030

Cables  
Eurotech London W1

DR. RALPH M. HILL

TL-11-63  
January 2, 1963

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



Dear Professor Natta:

We recently learned that you had been named to receive the 1963 International Award in Plastics Science and Engineering. We were certainly pleased to learn that this honor would be given to you since it is so justly deserved.

I understand that you will receive the Award in Los Angeles, California during the Annual Technical Conference of the Society of Plastics Engineers. If there is any possibility that you may be in the New York area during your visit to the United States we would like very much to have you visit the Esso Research Center at Linden and give a lecture, perhaps to a relatively small group, depending upon your subject. I believe you have visited the Research Center in the past and our people there would be most happy to welcome you again.

If you are able to accept this invitation there would be an honorarium of \$175 plus a contribution of \$25. towards your expenses while you were in the New York area. Also we would appreciate receiving a suggested title for your talk.

I hope that you will have a pleasant journey to California and that you will be able to accept our invitation. I look forward to an early reply.

Sincerely yours,

*Ralph Hill*

R. M. Hill

RMH:cn

6th Sept. 1963

*Carbette  
Esso*

our ref. 804/lv

Dr. R. M. Hill,  
ESSO Research Limited,  
50 Stratton Street,  
London W. I.

Dear Doctor Hill,

Thank you very much for kindly sending me the nice photograph you took in my office last June. Since I find it particularly beautiful, I wonder whether you can send me its negative, which will be sent you back again in a short time.

Thanking you very much again, I am

Sincerely yours,

G. Natta

ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

Telephone  
HYDe Park 7030

Cables  
Eurotech London W1

RALPH M. HILL

TL-512-63  
August 27, 1963

Professor G. Natta  
Istituto di Chimica Industriale  
del Politecnico  
Piazza Leonardo da Vinci 32  
Milano

804

Dear Professor Natta:

During a visit to your office in the early part of  
June you were kind enough to allow me to take a  
photograph. In accordance with my promise I en-  
close a print herewith.

Best regards,

Sincerely yours,

*R. M. Hill*  
R. M. Hill  
*R.M.*

RMH:cn

*magratis - n. c. s. u. s.*  
*u. s. s. u. s. u. s. u. s.*  
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ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

*Coutelle*  
*Esso*

Telephone  
HYDe Park 7030

Cables  
Eurotech London W1

RALPH M. HILL

*[Handwritten signature]*

Professor G. Natta  
Insituto di Chimica Industrialle  
del Politecnico  
Piazza Leonardo da Vinci 32  
Milano

TL-430-63  
19 July 1963

Dear Professor Natta:

It was a real pleasure to meet and talk with you again during my visit to Milano with Dr. Barbieri on 5 June. The opportunity to learn of some of the progress in your researches was appreciated.

I want to thank you for the time you spent and I look forward to seeing you again in the near future.

Sincerely yours,

*Ralph Hill*

RME/MH

R.M. HILL

*Partello  
Esso*

April 26, 1963

our ref.337/1v

Dr. Ralph M. Hill,  
Esso Research Ltd.,  
50 Stratton Street,  
London W.1. (Inghilterra)

Dear Doctor Hill,

Thank you very much for the kind interest you took in the visit of prof.Mazzanti to the laboratories of ESSO Research in Linden.

Due to some engagements in Washington, after the Congress of the Rubber Division of A.C.S., Prof.Mazzanti would like, if possible, to postpone his visit to May 16. On his visit, Prof.Mazzanti would like to meet researchers of ESSO mainly interested in the field of copolymers and terpolymers.

Thanking you again, I send you kindest regards.

Giulio Natta

ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

Telephone  
HYDe Park 7030

Cables  
Eurotech London W1

DR. RALPH M. HILL

TL-223-63  
April 8, 1963

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

337  
11 APR. 1963

Dear Professor Natta:

Thank you for your letter of April 3. I am taking the liberty of contacting Professor Mazzanti directly, and I shall also write to Dr. Belden suggesting May 14 as a date for Professor Mazzanti's visit.

Best regards,

Sincerely yours,

*Ralph Hill*

R.M. HILL

RAH:MH

*Mazzanti*

Oct. 22, 1959

W. C. Asbury, Esq.

*c/o Ing. Funthausen*

our ref. 1114/lv

Dear Mr. Asbury,

Professor Natta is very sorry that he will not be able to meet you in Milan, because he is abroad (in Germany) at the moment and he will be back only after the 10th of November.

Professor Natta lets you know that you can visit his new Laboratory also if he is not here. An assistant of his will take care of you during your visit.

With kindest regards.

Dr. R. Lamma  
(secretary to Prof. Natta)

# ESSO RESEARCH AND ENGINEERING COMPANY

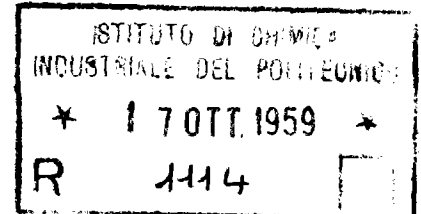
(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)

October 13, 1959



Prof. G. Natta  
Institute di Chimica Industriale  
del Politecnico  
Piazza Leonardo de Vinci, 32  
Milan, Italy

Dear Prof. Natta:

As you probably know, I have an appointment with Mr. Giustiniani at 5:00 p.m. on Friday, October 23. I understand from Dr. Guyer that you are in new quarters in the Institute. I would like to call on you and see your new facilities for a short time if it is convenient. I would plan to drop in and see you about 10:00 a.m. the morning of the 23rd if this is suitable for you.

Very truly yours,

W. C. ASBURY

wca/cw

CC: Mr. P. Giustiniani

*minutes  
copy  
P.L. 12/10*

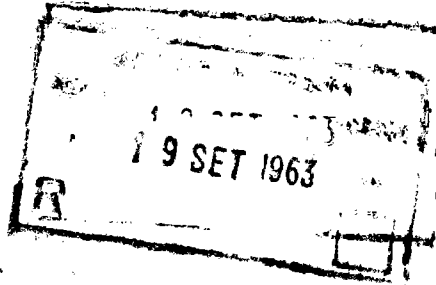
ESSO RESEARCH LIMITED

50 STRATTON STREET  
LONDON W.1

Telephone  
HYDe Park 7030  
Cables  
Eurotech London W1

*Cartello  
Esso*

RALPH M. HILL



TL-524-63  
September 17, 1963

Professor G. Natta  
Istituto di Chimica Industriale  
des Politecnico  
Piazza Leonardo da Vinci 32  
Milano

Dear Prof. Natta:

Dr. Hill is at present in the United States and will not be returning to the office until September 30th. I am therefore acknowledging your letter of September 6th requesting the negative of the photograph he sent you and no doubt he will let you have this when he returns to the office.

Very truly yours,

*C. Ness*

C. Ness  
Sec. to Dr. Hill

:cn

**MONTECATINI**

Società Generale per l'Industria Mineraria e Chimica

AMMINISTRATORE DELEGATO

PROMEMORIA

G/ra

ISTITUTO DI OVINDO  
INDUSTRIE REL. E LEGAL.  
8 APR. 1950  
R 436

Data: 7 aprile 1950

Cortelle  
Esso Euf.

per il Signor

Ing. DE VARDA  
Ing. GRISOMI  
Prof. NATTA  
Ing. BALLABIO

Il Signor ASBURY mi scrive che, di ritorno dagli Stati Uniti, voleva fare opposizione ai brevetti del pool Montecatini in Giappone. In considerazione, però, della possibilità di avere una licenza per la sua società giapponese, e cioè la TGA Henry, egli ha sospeso questa azione: e, aggiunge, anche perchè ha saputo che un'altra società giapponese ha già fatto opposizione e perchè, secondo la procedura vigente in Giappone, si possono fare anche opposizioni ritardate.

Prima di rispondere a dovere a questa onesta dimostrazione della, dirò così, ingenuità del nostro amico Asbury, desidero intrattenervi anche alla luce delle pratiche in corso con altri gruppi giapponesi.

Cordiali saluti.

13  
f

PROF. NATTA

*Carillo*  
*1959*

G/ra/Al

Milan, April 7, 1959

Dear Mr. Asbury.

I received your letter of March 12th last.

For reasons which you will easily understand, I am not yet able to take a position in respect to the wish expressed by your associate in Australia, Standard Vacuum Oil Company, aiming at obtaining by us a licence for the manufacture of polypropylene in that Country.

I will keep in mind the wish, now confirmed, of your associated Company for duly considering it at the right time.

With best personal regards,

Yours sincerely,

(Ing. Piero Giustiniani)

Mr. W. C. ASBURY  
Vice President  
Esso Research and Engineering Co.  
P. O. Box 111  
LINDEN, N. J.

*Asbury*



*Conkette  
Emm*

February 16, 1959

Mr. W.C. Asbury  
Esso Research & Engineering Co.,  
P.O. Box 111  
Linden, N.J.

201/mb

Dear Mr. Asbury,

I am most grateful for your letter of February 9 from which I learnt that the composition of epoxide product from oxidation of hexane corresponds to a mixture of many different products.

I wish to know whether they might be easily separated and whether it is possible to hold each of them apart from the others.

Anyway, it would be helpful for me having samples of them, possibly, few pounds.

With my best personal regards,

G.Natta

*contella*  
↓

# ESSO RESEARCH AND ENGINEERING COMPANY

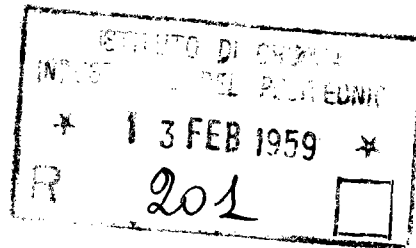
(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)

February 9, 1959



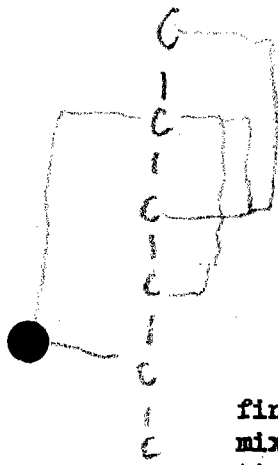
Prof. G. Natta  
Institute di Chimica Industriale  
del Politecnico  
Piazza Leonardo de Vinci, 32  
Milan, Italy

Dear Prof. Natta:

You will recall that during the meeting of January 24 in Milan, Mr. Murphree discussed some of the work that we had done on the oxidation of hydrocarbons such as hexane to make epoxides. You indicated interest in some details of the composition of these epoxides. I am giving below the composition of the epoxide product from oxidation of hexane.

Composition of Epoxide Product from  
Oxidation of Hexane

*acido perossido*



<u>Compound</u>	<u>Wt. %</u>
2,5 Dimethyltetrahydrofuran	52
2,4 Epoxyhexane	33
2,3 "	13
1,3 "	2
	<u>100%</u>

We have discussed this matter on returning home and find that our technical people are preparing a large sample of these mixed epoxides from hexane and would be glad to send you a representative sample after this work is completed which will be in a few months. In the meantime it would be helpful if you would let me know the approximate size of the sample you would like. We expect that we should be able to send you several pounds. Any comments you have on these epoxides and any possible uses that you foresee would be appreciated.

With best personal regards,

Very truly yours,

W. C. ASBURY

wca/cw  
CC: Mr. P. Giustiniani

**MONTECATINI**

Società Generale per l'Industria Mineraria e Chimica

AMMINISTRATORE DELEGATO

Data: \_\_\_\_\_

**7/4/1959**

**PROMEMORIA**

G/ra

per il Signor \_\_\_\_\_

**Ing. ORSONI**  
**Ing. DE VARSA**  
**Ing. BALLABIO**

**Prof. NATTA**

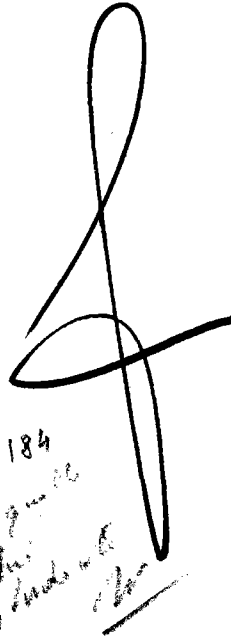
ISTITUTO DI CHIMICA INDUSTRIALE DEL POLITECNICO	
8 APR. 1959	
R	435

*Cartello  
Esse*

**Per Vostra conoscenza Vi rimetto  
copia di lettera del Signor Asbury del 12 marzo scorso e copia della  
mia risposta di oggi.**

**Cordiali saluti.**

**2 allegati**



*no - ha  
deposto un  
brevetto in  
questo campo  
e deve arrivare al  
brevetto -*

*Berti  
V. con 20 d  
L. 554/184  
1949 e 1950  
di cui  
1/2000000*

G/ra/Al

Milan, April 7, 1959

Dear Mr. Asbury,

I received your letter of March 12th, from which I note that the process for the production of 2-ethylhexanol is considered by you as being still in a development phase and that it could be susceptible of being placed at our disposal.

I beg you to bear in mind that the process is interesting to us and to take, therefore, diligence, when you consider the same is definitely set up.

I reserve to let you know as soon as possible the comparable data on A. M. alcohols, as per your letter of March 11th.

With regard to the process relevant to the oxidation of para-xylene covered by Belgium patent 554,184, I shall tell you something on the same with another letter.

With best personal regards,

Yours sincerely,

(Ing. Piero Giustiniani)

Mr. W. C. ASBURY  
Vice President  
Esso Research and Engineering Co.  
P. O. Box 111  
LINDEN, N. J.

*Capitelli*  
*Esso*

Data, 20 Marzo, 1959.

RP/50

## PROMEMORIA

per il Signor Dr. Ing. G. de Yarda

→ e p. c. Prof. G. Natta - Politecnico - Milano  
" " P. Pino - Ist. Chim. Generale - Pisa  
" " G. Mazzanti - Politecnico - Milano.

**OGGETTO: Brevetto U.S.A. 2,874.153 - Esso Research Co. -  
su "Polimerizzazione del propilene".**

---

Allego una breve analisi del file wrapper del brevetto in questione dal quale appare particolarmente interessante il rigetto delle rivendicazioni sul metodo di separazione del gesso, e di quelle di prodotte.

In base ai risultati della discussione circa la disclosure di Ziegler relativa ai rapporti nel brevetto belga sul polietilene, appare dubbio che la eventuale interferenza con la domanda XIV di Ziegler possa risolversi favorevolmente a Ziegler, in quanto il concetto di criticità del rapporto fra i componenti del catalizzatore non sembra contenuto nella XIV.

Con i migliori saluti.



---

R. Pirani

All.

Kuman L.V. e Leary R.F.

to Rose Research & Engineering Co.

Serial No. 543,470 - filed Oct. 28, 1955

---

La domanda contenuta originariamente 18 claims sui

- a) processo per produrre polipropilene con un catalizzatore "obtained by mixing aluminum trialkyl with a reducible compound of titanium"  $\text{Al/Ti} = 1.5 : 1$  a  $3 : 1$ , in particolare  $1.75 : 1$  a  $2.25 : 1$
- b) separazione del polipropilene "into an oil-soluble, essentially amorphous polypropylene product and an oil-insoluble essentially crystalline polypropylene product. (Claim 13).
- c) " polypropylene prepared according to the method" fra cui "oil-soluble, essentially amorphous polypropylene prepared according to the method of Claim 13" e "oil-insoluble, essentially crystalline polypropylene prepared according to Claim 13".

1st Office Action - 10 luglio, 1956 (Div. 60)

Citate interne 2.721.189

Sieler (Belgium) 533,342 (polietilene)

J. Am. Chem. Soc. - Marzo 20, 1955 (Nota - Communication to the Editor, received Dec. 10, 1954)

Chem. & Eng. News - luglio 11, 1955 (x)

ricepiti tutti i claims.

In particolare il metodo di separazione e i claims di prodotto sono ricepiti per via delle pubblicazioni Nota.

Si noti l'espressione dell'Esaminatore:

- " "Separating" broadly appears to be merely an obvious expedient for obtaining crystalline and amorphous fractions of the product and does not sustain patentability".

---

(x) Notizie sul IV Congresso Mondiale del Petrolio, Roma, con accenti alla Conferenza Nota sulle nuove poliolefine (polipropilene), separabili in frazioni amorfe e cristalline. /.

Nell' Amendment si mette in evidenza la specificità del rapporto impiegato, respingendo (giustamente) Anderson, e notando che Ziegler si riferisce solo all'etilene e parla di rapporti, per composti di Ti diversi dall'acetilacetato, di 8 : 1 a 12 : 1. Si fa un debole tentativo di difendere le rivendicazioni sulla separazione, aggiungendo ai claims valori del peso molecolare del polimero, e dicendo che le citazioni non dicono con quale catalizzatore è ottenuto il prodotto.

2° Office Action - 11 Sett. 1957 (Final) (Div. 3)

Si respingono ancora tutte le riv.

Ziegler insegna che la riduzione del Ti non è nessuna più di 3 moli di

---

Nell' Amendment si sostiene che l'ingegnamento di Ziegler non ha a che fare con una indicazione di rapporto critico. Si riporta un affidavit degli inventori, corredato da un "patent memorandum" di data (non leggibile) anteriore al luglio 1955, data della pubblicazione di Chem. & Eng. News citato. Questo memorandum illustra esempi di polimerizzazione del propilene con vari rapporti, dimostrando la criticità della stessa range.

Si rinuncia ai claims sulla separazione e ai claims di prodotto.

1° Office Action - 7 Febb. 1958 (Tech. A. Division)

respinge di nuovo i claims restanti, debolmente.

---

Amendment si limitano i claims a 11 trietile (nel frattempo ha avuto luogo l'intervista)

Si commenta esplicitamente sulla non-criticità dei rapporti insegnati da Z.

(Nota l'espressione "restricted requirements of a certain patent" riferita al brevetto Ziegler?)

Appelle - 21 Avril 1958 - Allocution 14 Juin 1958

Tentative, lueciste, di cambiare  $TiCl_4$  in "reducibile  $Ti$  chloride".

10 claims amended - Brevetto 2.674.153 concesso 17 Febbraio 1959.

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Milano, 11 Marzo 1959.

Pregro Signore  
Ing. Piero Giustiniani,  
S e d e.

Esso Research.

Avevamo promesso di prendere posizione su questi argomenti :

1. Scambio di informazioni sugli Elastomeri.

Il punto fondamentale è che noi non siamo interessati alla tecnica del butyl-rubber che Esso offre, bensì a quella degli elastomeri C<sub>2</sub>-C<sub>3</sub> che Esso non possiede, e che dobbiamo piuttosto cercare di costruire in collaborazione con un fabbricante di pneumatici e articoli di gomma animato da desiderio di progresso.

Viceversa, Esso può essere interessato alla produzione degli elastomeri C<sub>2</sub>-C<sub>3</sub> e anche alle loro applicazioni; è probabile che Esso abbia già lavorato e ottenuto dei risultati nel campo dei copolimeri, e che l'offerta di quanto noi abbiamo fatto non sia molto valutata.

Per conseguenza, dobbiamo dichiarare a Esso il nostro disinteresse allo scambio proposto, e offrire invece la cessione della nostra esperienza in fatto di produzione di copolimeri. Inoltre, stringere accordi con fabbricanti progrediti di pneumatici per costruire la tecnologia di impiego dei copolimeri.

2. Brevetto per produzione diretta di tereftalato di glicol.

Concesso in Belgio e Francia; in esame in Germania, Inghilterra, Olanda, Svizzera, Stati Uniti.

Lo studio, limitato nel 1957 all'essenziale per la brevettazione, è ora ripreso, ma in complesso è agli inizi. Ossidazione e esterificazione hanno luogo in una sola operazione e con un unico catalizzatore.

Tale è la situazione da presentare a Esso.

Lto. Orsoni

Cr/sl.

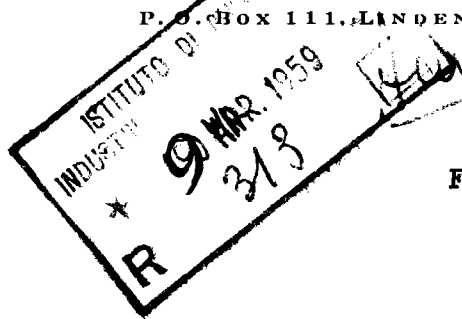
# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. Box 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)



February 27, 1959

Prof. G. Natta  
Istituto di Chimica Industriale  
del Politecnico  
Piazza Leonardo da Vinci, 32  
Milan, Italy

Dear Prof. Natta:

This refers to your letter of February 16 regarding the oxidation products of hexane. Our technical people tell us that the two main C<sub>6</sub> epoxides, namely, the 2,5 and the 2,4 can be separated into pure form by distillation. These account for about 80% of the total. The other epoxides (20%) cannot be separated by normal distillation. As I told you, we are planning to send you a few pounds of these products. This could be some of the total mixture and also some of the 2,5 and the 2,4, separately.

As I indicated in my previous letter, this will take some time, perhaps it will be two months before the large samples are prepared.

With best regards.

Very truly yours,

W. C. ASBURY

Handwritten signature of W. C. Asbury.

wca/cw  
CC: Mr. P. Giustiniani

Handwritten initials.

**MONTECATINI**

Società Generale per l'Industria Mineraria e Chimica

Brevetti e Documentazione Tecnica

AV/MA

27 Gen. 1959

*Carlo Esso*  
Data

**PROMEMORIA**

**Ing. Piero GIUSTINIANI**

per il Signor

**e p.c. Ing. OSONI**  
**PROF. NATTA**

**Oggetto: Polipropilene -**  
**Visita signori Esso Research -**

Trasmetto verbale sommario della  
riunione tenutasi sabato mattina con i signori  
della Esso Research.

Con ossequio.

*[Signature]*

all/

Milano, 24 Gennaio 1959

Oggetto: Visita Milano Presidente Esso Research -

Alla riunione di sabato 24 m.c. hanno partecipato:

per la Esso: Prof. Murphy, Presidente  
Mr. Asbury, Vice-Presidente per la proprietà  
ingegno-industriale  
Mr. Tyson, di Londra, agente brevettuale

per Montecatini: Ing. Giustiniani  
Ing. Orsoni  
Prof. Natta  
Ing. de Varda.

Nel corso della riunione sono stati presi degli appunti abbastanza dettagliati.

Riassumo qui i punti che vanno particolarmente ricordati:

1) Licenza Giappone polipropilene

Asb. Se la nostra consociata giapponese TOA riuscisse ad ottenere l'approvazione del governo per una licenza sul polipropilene la Montecatini sarebbe disposta in tal caso a concederla?

Giust. Si, a condizioni non peggiori di quelle fatte agli altri purchè detto permesso governativo sia stato concesso in modo inequivocabile e fra i primi concessi.

2) Francia

Asb. Se uno dei vostri due licenziatari francesi non dovesse, contrariamente alle previsioni, entrare in produzione, sareste allora disposti a darci una licenza in Francia?

Giust. Se ne potrà parlare allora, ma è poco probabile che la vostra ipotesi si verifichi.

3) Benelux

Asb. Benelux?

Giust. Dobbiamo attendere gli sviluppi in corso con la Shell. potremo riparlare in maggio/giugno senza impegno.

./.

4) Sud America

Asb. I paesi del Sud-America sono ancora disponibili?

Giust. Il Sud-America può essere preso in considerazione per una eventuale licenza.

5) Copolimeri C2 e C3

Murphy e Asbury: Abbiamo fatto un considerevole lavoro di sviluppo nel campo della gomma butile, specialmente nei copertoni di automobile. Abbiamo maturato una notevole esperienza in tale campo dovendo risolvere in proprio numerosi problemi. I nostri prodotti vanno lanciati col nome "Bucron". Possiamo sperare di poter esservi di aiuto nel vostro sviluppo dei copolimeri C2/C3 ?

Giust. La cosa è complicata in quanto abbiamo già un accordo di collaborazione con la Pirelli. Avete già pensato a eventuali basi per un simile accordo?

Asb. Sì; ecco lo schema che noi proponiamo (distribuendo ai presenti un promemoria dattiloscritto di due pagine articolate in una premessa e in cinque punti).

Giust. Ringrazio e mi riservo di esaminarlo a fondo prima di prendere posizione in merito.

6) Moplen Base

Asb. Abbiamo prodotto dell'ottimo Moplen confrontabile in tutto con i vostri prodotti. Pensiamo che il nostro Moplen sia forse un po' meglio stabilizzato del vostro.

Ors. Ulteriore lavoro è stato da noi fatto nel campo degli stabilizzanti, di fronte ai campioni da voi analizzati.

Asb. Abbiamo brevettato numerosi nostri trovati e ci sono già stati "allowed" dei claims negli U.S.A.

dV. Suppongo solo claims di processo.

Murp. (dopo aver controllato i suoi incarti assieme a Tyson) Sostanzialmente claims di processo, però un claim "involves in some ways a product".

dV: Claims del genere sono stati allowed, ormai, a parecchie Società.

Asb. Sappiamo che c'è una interference di processo in corso fra Sieglar e du Pont. Anche noi abbiamo parecchie interferences in corso con terzi.

dV. C'era da aspettarselo, visto il grande numero di domande di brevetto depositate in questo campo da molte società.

Asb. Non abbiamo invece parte nella interference dei cinque al claim di prodotto sul propilene.

dV. Esatto; comunque detta interference non costituisce ancora la chiave primaria ai principali brevetti sul polipropilene (come molti sembrano ritenere).

Asb. Può darsi; però riteniamo detta interference molto importante.

dV. Sì.

### 7) Polibutadiene e poliisoprene

Asb. Qual'è la vostra opinione in merito al polibutadiene 1-4, cis e al poliisoprene? Quale dei due è migliore?

Natta Il prezzo delle due materie prime è assai differente.

Asb. Il butadiene vale 14 cents la libbra. L'isoprene ne vale 25 la libbra, però aumentandone la produzione si potrà scendere a 20 cents, forse anche a 18 cents la libbra.

Giust. Il polibutadiene equivale a un dipresso il poliisoprene; salvo che il polibutadiene costa meno. Inoltre abbiamo raggiunto dei gradi di purezza molto elevati: 96% e oltre, mentre la concorrenza, pur rivendicando dei prodotti al 95% non ha mai superato gradi di purezza dell'ordine dell'88%. Inutile aggiungere che i prodotti ad alto grado di purezza possiedono caratteristiche particolarmente interessanti.

### 8) Paesi Scandinavi, Australia, Aruba, Spagna

Asb. (Ritornando al problema delle licenze polipropilene) Esistono altri paesi liberi per eventuali licenze alla Esso? Per esempio paesi scandinavi?

Giust. No. Abbiamo già trattative in corso con due industrie locali fra cui persino un gruppo finlandese fermamente deciso a iniziare la produzione del polipropilene per il mercato finlandese fino a oggi privo anche di stabilimenti che producano il polietilene. I finlandesi hanno dichiarato che non intendono esportare verso i paesi oltre Cortina.

Asb. Spagna?

Giust. Poco da fare, tutte le raffinerie sono in mano governativa che gestisce un monopolio del tipo Eni.

**Asb.** Australia?

**Giust.** Abbiamo già degli impegni in corso con Shell e I.C.I. Innanzitutto dobbiamo vedere come si mettono i due contratti inglesi.

**Asb.** Peccato perché potremmo anche trovarci in posizione migliore degli stessi inglesi.

L'India fa parte del Commonwealth in cui avete or ora escluso di poterci dare delle licenze?

**Giust.** No. Ma anche l'India è prematura.

**Asb.** Sarete disposti a darci una licenza per uno stabilimento da costruire nell'isola di Aruba (Ondie Occidentali olandesi) dove possediamo una importante raffineria accanto a quella della Shell, in modo da produrre in località unica per tutto il Sud America ?

**Giust.** Vi confermo che il Sud-America è tuttora disponibile, però col nazionalismo colà imperante intravedo un grave pericolo. Le vostre importazioni in detti paesi potrebbero essere fermate in qualsiasi momento dai governi locali col semplice pretesto che non produce in loco. Comunque non abbiamo impegni per l'isola di Aruba.

**29) Ossidazione del para-xilolo (Ms. trovato "F.147").**

**Asb.** Abbiamo avuto sentore del vostro trovato dopo la pubblicazione del brevetto belga 554.184. Desidereremo sapere se detto trovato è stato esteso anche agli U.S.A. e se lo ritenete tecnicamente interessante.

**Giust.** Per noi non molto interessante in quanto la materia prima è cara. La situazione potrebbe essere alquanto differente per voi negli U.S.A.

**dV.** Il trovato è stato esteso regolarmente negli U.S.A.

**Asb.** Sarete disposti a fornirci informazioni tecniche confidenziali per valutare fino a che punto detto trovato possa essere per noi interessante?

**Giust.** (ripromettendosi di parlarne con Kovara) Sì, ne prendiamo nota.

**10) Produzione alcoli**

**Asb.** (Solleva il problema della produzione alcoli secondo i processi Ziegler. Mentre la Esso non è riuscita finora ad accertarne una convenienza economica, ha saputo con sorpresa che la Continental Oil Company ha deciso di costruire un impianto industriale)

**Matta** E' questione del prezzo del catalizzatore.

**Giust.** Noi abbiamo messo completamente a punto il nostro processo ma ci siamo fermati in vista del prezzo del catalizzatore che diventa interessante al di sotto di un dollaro per libbra.

**Asb.** Negli U.S.A. quotano ora mezzo dollaro per libbra. Sareste interessati ad uno scambio di informazioni sui costi?

**Giust.** Perchè no. Potremmo scambiarci i flow sheets e i consumi unitari. Prima però l'Ing. de Varda dovrà controllare se detto scambio di informazioni non contrasti con gli impegni da noi presi con Ziegler.

**Asb.** Sia voi che noi siamo licenziatari di Ziegler anche per quanto riguarda detti alcoli.

**dV.** In tal caso non credo esista un impedimento a detto scambio; comunque farò ricontrollare gli accordi del nostro contratto con Ziegler.

**11) Acidi grassi (processo Koch - collaboratore Ziegler) ramificati**

**Giust.** non credo ci interessi da vicino.

**12) Acrilonitrile**

**Asb.** Abbiamo ~~un~~ un processo partendo dall'etilene.

**Giust.** Anche noi abbiamo dei processi ma il problema nel prossimo futuro non sarà tanto quello di trovare degli sviluppi all'etilene ma al propilene.

**Asb.** Sarà benissimo; però attualmente ci farebbe molto comodo poter collocare il propilene.

**Giust.** (fa vedere un elegante campione di stoffa fantasia per mantello da signora di polipropilene puro avente un'ottima "mano" paragonabile alla lana pura).

**Asb.** (dopo aver lodato il campione) E l'inflammabilità?

**Ors.,** Minore di quella del cotone.



**13) Alcoli C8-C9-C10 da ossosintesi**

**Asb. Producente voi ozcalcoli C8, C9 e C10 ?**

**Or. Si, il C8.**

**Asb. Siete in grado di produrre alcoli normali C4?**

**Giust. Si, e voi?**

**Asb. Noi no.**

**Giust. Sarete interessati ai nostri procedimenti?**

**Asb. Si.**

**Giust. Provvederò a farvi contattare in merito.**

**Alla fine della seduta l'Ing. Giustiniani ribadisce nuovamente e calorosamente la sua intenzione di arrivare ad una stretta collaborazione con la Esso ogni qual volta si presenterà un'opportuna occasione.**

**I signori della Esso dignitosamente ringraziano.**

**(G.dv.)**

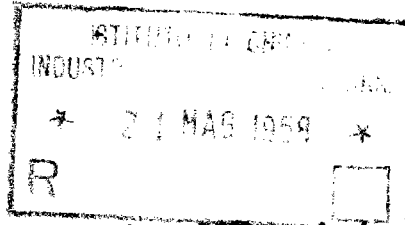
ig. prof. Natta .

## MONTECATINI

SETTORE PROGETTI E STUDI

Milano, 20 Maggio 1958.

**Preg. mo Signore  
Ing. Piero Giustiniani,  
S e d e.**



→ **Esso Research.**

**Mr. Guyer, che aveva accompagnato a Milano i sigg. Asbury e Sparks, mi avverte che verrà in Italia per il Congresso di Chimica di Torino. Egli scrive fra l'altre :**

**" I had occasion to be in contact with Mr. Asbury, who wants to emphasize our continuing interest in polypropylene licenses. Also, I gathered that prof. Natta presented a most favorable paper on your new rubber from butadiene".**

**Egli vorrebbe visitarci il 23 Maggio verso sera o il 24; gli ho telefonato che venga pure.**

lto: Orsoni

Or/sl.

May 19, 1958

Mr. Walter R. Guyer

Esso Research Limited  
33 Daviss Street

L O N D O N W.1 - England

Ref.N.611/r1

Dear Mr. Guyer,

I just received your kind letter of May 16, 1958, and I shall be glad to see Mrs. Guyer and you during your travel to Italy. As soon as you arrive to Milan, on Friday 23rd, please call for me, from 3 p.m. till 8 p.m. at my Institute (Telephone No. 235.181, 292.105, 292.106) and after at my home (Telephone No. 486.308), so that we may arrange an eventual appointment in the same day. If it not possible to meet each other on this day, I shall be pleased to see Mrs. Guyer and you during the Turin Congress, or after this, in Milan before your flying to Frankfurt.

Awaiting the pleasure of meeting you, Mrs. Natta and I send you our best regards.

Sincerely yours,

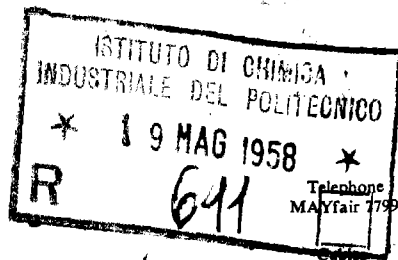
Giulio Natta

ESSO RESEARCH LIMITED

(Formerly Esso Development Company, Limited)

33 DAVIES STREET  
LONDON W.1

WALTER R. GUYER



May 16, 1958

Professor G. Natta  
University of Milan

Dear Professor Natta

You will recall meeting me when Messrs. W.C. Asbury and W.T. Sparks visited you at the Montecatini offices, and also when Dr. Sparks and I had the pleasure of visiting your home, last November.

I am wondering whether I could have the opportunity of talking to you when I come to Milan and Turin in connection with the Italian Chemical meeting in Turin. It turns out that my wife and I will be leaving London this coming Friday, May 23<sup>rd</sup>, to fly to Milan. After dinner we will take a train to Florence (leaving Milan in the evening) where we will be Saturday, Sunday, and Monday morning. Monday we will come to Turin, remaining there until Friday. On Friday we will proceed to Milan and then fly to Frankfurt to go to the Achema meeting.

The most favorable situation would be to have you and Mrs. Natta as a luncheon ~~and~~ dinner guest sometime during this period, with me and Mrs. Guyer, in Turin (or even in Milan). If for some reason, we can't get together for lunch or dinner, I would certainly appreciate the opportunity <sup>to see</sup> you for a half hour or so at your convenience. Any suggestions you

all care to make would be most welcome.

Mr. Asbury was in contact with me, and wants to emphasize our continuing interest in polypropylene. He told me that you gave a most successful and important paper at the A.C.S. in San Francisco. In particular, he said that your new rubber made from a purified butadiene is as good as the isoprene - natural - synthetic type. Dr. Sparks <sup>wondered</sup> in particular whether samples could be obtained, since he feels temperature-resilience problems are so important. (While you were in the U.S.A. I was at Bad Nauheim, Germany where Professor Hoff of Zurich gave an introductory paper on polyolefins. He spoke at length and with enthusiasm about your work and referred to tire testing work.) On all of this, which you discussed in general terms during our November visit, let me congratulate you.

If at all convenient, I would appreciate your dropping me an air mail express letter so that it reaches me by Thursday (May 22<sup>nd</sup>) since I leave Friday with my wife. Alternatively, a brief cable (to EUROTECH LONDON) "FOR BUYER ....." would be informative. To be sure that I can get to see you, I wonder whether you can suggest two alternate ways, <sup>or times</sup> that I could see you. I can even alter my schedule.

If for some reason I don't hear from you, I will leave a message at your TOWN hotel, so that you can let me know how I can get in touch with you. Otherwise I will talk to you when I see you at the meeting.

Sincerely yours  
Walter R. Guyer

Walter at home. Please excuse.

MR

# ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)

March 28, 1958

*From*

*ACB  
dint.*

Professor G. Natta  
c/o Mr. L. Lucini  
21 West Street  
New York 6, New York

Dear Professor Natta:

On behalf of Mr. Murphree, our President, we would like to invite you and Mrs. Natta to dinner on the evening of April 14 on the occasion of the American Chemical Society meeting in San Francisco. Mrs. Murphree and Mrs. Asbury would join us.

We assume that you are planning to go to the General Meeting at 8:30 P.M. in the Nourse Auditorium and therefore would propose that we have dinner together around 6:00 P.M. in the Fairmont Hotel where Mr. and Mrs. Murphree are staying. This hotel is across the street from your hotel the Mark Hopkins.

Mr. Lucini has kindly agreed to present this invitation to you on your arrival in New York. I would appreciate receiving a call from him or from you if you are able to have dinner with us.

Sincerely yours,

*W. C. Asbury*

wca/cw

*Accettato - e mai anche la signora Natta che  
Telefonato alla segretaria a Linden, N.J.  
2 apr. 1958*

March 20, 1958

AOS  
vrate

Ref.n.419/el

Mr. W.C. ASBURY

P.O. Box, 111

LINDEN - N.J. (U.S.A.)

Dear Mr. Asbury,

many thanks for your kind letter of March 12.  
I wish inform you that I have been obliged to anticipate my coming to United States owing to unforeseen circumstances.

I will leave Milan on March 27 ~~and~~ or 28; after a short touristic trip, Mrs. Natta and I will arrive most probably to Berkeley on April 8 (staying at the Claremont Hôtel). From April 13 to 18 we shall stay in San Francisco at the Mark Hopkins Hôtel, and then we shall go to Montreal through Chicago.

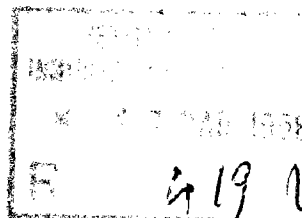
Mrs. Natta and I do hope to have the pleasure to meet Mrs. Asbury and you during our travel through the States.

With best personal regards.

Sincerely yours,

G.Natta

W. C. ASBURY  
P. O. BOX III  
LINDEN, N.J.



March 12, 1958

Prof. G. Natta  
Istituto di Chimica Industriale  
del Politecnico  
Piazza Leonardo da Vinci 32  
Milan, Italy

Dear Prof. Natta:

Many thanks for your letter of March 3 telling me of your travel plans in the United States. Mrs. Asbury would very much like to see Mrs. Natta while she is here and I wonder whether you would be so kind as to tell us your hotel address in San Francisco so that Mrs. Asbury could contact her there

With best personal regards,

Sincerely yours,

wca/cw

risposto 20 marzo -

dati nomi alberghi  
in Berkeley e San Francisco  
sfere vespero -



*F. S. S. S.*  
*Franklin*

March 3, 1958

Mr. W. C. ASBURY, Vice President  
ESSO RESEARCH AND ENGINEERING  
COMPANY  
P. O. Box 111  
LINDEN - N. J. - U. S. A.

Dear Mr. Asbury,

Many thanks for your kind letter of February 24. I wish to inform you that I will attend the Meeting of American Chemical Society in San Francisco. I shall arrive to Berkeley the week before the Meeting to give a lecture at California University in Berkeley. Furthermore, I shall be in Montreal from April 20 till 23; in New York on April 25 and 26, to participate to a Symposium. After, I shall remain in the United States a week again, and I do hope to have the opportunity to meet you.

With my best personal regards, I remain

Sincerely yours,

Giulio Natta

BOZZA

W.C. ASBURY

La ringrazio per la Sua gentile lettera del 24.3.

Colgo l'occasione per informarla che parteciperò al meeting dell'A.C.S. di San Francisco e che arriverò a Berkeley la settimana prima per fare una "lecture" all'Università di California a Berkeley. Sarò a Montreal dal 20 al 23 aprile, a New York il 25 e 26, dove parteciperò ad un simposio. Rimarrò poi ancora una quindicina di giorni negli Stati Uniti e spero di avere occasione di poterLa salutare.

Saluti

# ESSO RESEARCH AND ENGINEERING COMPANY

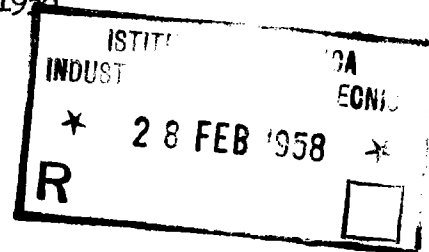
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P. O. Box 111, LINDEN, N. J.

W. C. ASBURY  
VICE PRESIDENT

TELEPHONE: WABASH 5-1600  
(LINDEN, N. J.)

February 24, 1958



Professor Giulio Natta  
Polytechnic Institute of Milan  
Milan, Italy

Dear Professor Natta:

I was very happy to see in the New York Times of February 22 that you had been elected a Fellow of the New York Academy of Sciences in recognition of your discoveries in polymer chemistry.

Our congratulations and best wishes.

Very truly yours,

W. C. ASBURY

A handwritten signature in cursive script that reads "W. C. Asbury".

wca/cw