11th June 1949.

Mr. GUSTAV EGLOFF,
Universal Oil Products,
CHICAGO, Ill.(U.S.A.)

Dear Mr. Egloff,

Many thanks for the publications you were good enough to let me have and which I perused with great interest. Under separate cover I am forwarding you some reprints of our works.

I wrote you already on the 15th March 1949,asking you to kind ly point out to me any new cracking process existing in the States which you could recommend for producing a high yield of olefines suitable for developin in Italy a petrochemical industry. Fearing that this letter might not have reached you I submit to your kind attention the problems we are facing.

Italy's Chemical Industry had attained previous to the war a remarkable level and is now most desirous to get up to date and to develop further its synthetical processing on the basis of the new raw materials now available. While we are lacking of coal we could draw thanks to our geographical position,at favourable conditions our supplies of crude oil from the Near East. It is therefore obvious that our chemical industry should give all it-s attention to the crude oil as raw material for organic synthesis.

Owing to the relatively rather high consumption of fuel oil and the low consumption of gasoline in Italy,there is not any notable crackin plant and none is expected to be erected in the near future. The existing reforming plants or those under construction cannot guarantee a regular and constant supply of olefines and therefore we are on the look-out for a specia cracking process with a very high yield in olefines. Following the technical advice received from the Universal Oil during my stay in your City in 1947 we would eventually consider steam cracking at high temperature(1400-1500°F).

I would be grateful to you if you could state the name and address of some suppliers in the States of suitable equipment. An autothermic cracking with oxygen instead of air has also been mentioned to me at that tim and I should thank you for letting me know whether this processing which has also been studied in Italy by the A.N.I.C. Company,has further been developed in the States. The "Catarole" processing of the Br.Company Petrocarbon Ltd.,Man chester has also been taken into consideration. This process,starting from 180°-260° fractions,has also good yields of benzol,toluol and other aromatics We are however somewhat doubtful of the suitableness of this process,because it yields high amounts of heavier aromatics of scarce practical interest.

I would be glad to receive your precious advice and should li to know the best american progress in the cracking processes for the producti of olefines and I hope you will excuse me for having taken advantage of your valuable time.

If you have the opportunity of coming to Europe I would be ve glad to meet you and should you come during the summer months,my wife and I would be very glad to have you at our home in Champoluc, a small village 5500 feet high,near the Monte Rosa where I have a cottage. With best personal regards

Yours sincerely,

2 copies

F.A. Trim

Rappresentative

UNIVERSAL OIL PRODUCTS COMPANY

Bush House
Aldwych
London W.C. 2

4th July, 1949

Prof. G.Natta
Piazza L.da Vinci 32
Milano, Italy

Dear Sir,

I note from a letter of our Chigago Office dated June 27th that they have written you in regard to Olefin Productio

My point in writing is to call your attention to this office which is at your service in fostering any projects you may have in mind, and I should be glad if you would call upon me for any assistence I might be acle to give you.

I shall also make a point of trying to contact you, for the purpose of having a discussion, on my next visit to Italy.

Very truly yours

Firmato: F.A.Trim

UNIVERSAL OIL PRODUCTS COMPANY

310 South Michigan Avenue - Chicago 4, Illinois U.S.A.

June 27, 1949

Prof.Ing.Giulio Natta
Piazza Leonardo da Vinci 32
Milano

Dear Prof.Natta: Subject; Olefin Production

We have delayed answering the questions in your letter to Dr. Egloff, dated March 15, 1949, until we had done more development work on two processes for the production of olefins. We have been doing development, process, and engineering work on the autothermic process and a thermal process usig tubular cracking for the production of olefin and expect shortly to have direct comparisons on these for yields, operating costs and plant costs. We do not have sufficient information to make any comparisons with the Catarole Process or ~~fa~~ of the Fischer Process.

We note from your letter that are interested in the production of 20,000 - 30,000 metric tons/year of olefins from Middle East oils. We are accordingly attaching for your information Tables III and IV, which give the yields of the two processes when making 15,000 metric tons/year of ethylene with 96 % purity, together with other olefins. These products would be made by cracking a Middle East "naphtha" of the following specifications:

API	46.5	
Flash	109°F	
IBP	337°F	
5 %	356	
10 %	370	
30	393	S = 0.15 to 0.20 %
50	415	
70	442	K = 12.05
90	489	MW = 172
EP	546°F	

POLITECNICO MILANO

ITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
ZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, January 2[illegible], 1954
TELEF. 292-125 - 292-126

Dr. Gustav Egloff
Universal Oil Products Company
30 Algonquin Road
Des Plaines, Illinois, U.S.A.

Dear Doctor Egloff,

I thank you very much for your kind letter of January 22, and for the very interesting information you sent me about the characteristics of Platforming catalists. I am very grateful to you and I beg you to thank Dr. Haensel on my part.

In regard to what you asked me for, about Dr. Parravano: I was well acquainted not only with Dr. Parravano's father, but also with the doctor himself.

During the war, he worked in my laboratory studying selective idrogenation of acethylene in ethylene. Doctor Parravano is a young man with a great will and perseverance in his work and he has also a good theoric preparation. After the war, he worked in U.S.A. with Prof. Taylor at Princeton. His scientific publications particularly the ones concerning, and Kinetics of polimerization initiators ~~and~~ the catalysis, offer a certain interest.

It is many years since I saw Dr. Parravano but I read several of his works published in scientific reviews.

Hoping to meet you soon in Europe, also before the World Petroleum Congress, I remain,

Very sincerely yours,

(Prof. G. Natta)

ITITUTO DI CHIMICA INDUSTRIALE
DEL POLITECNICO
\ZZA LEONARDO DA VINCI, 32 - MILANO

MILANO, December 14, 1953
TELEF. 292-125 - 292-126

Doctor Gustav Egloff
30 Algonquin Road
Des Plaines, Illinois, U.S.A.

Dear Doctor Egloff,

I thank you for your kind wishes that my wife and I reciprocate very cordially for a Merry Christmas and a Happy New Year.

I take the opportunity of asking you for some informationthat probably you can give me, because I know you gave much attention to Platforming use in aromatising hydrocarbons.

In europe we studied ethylesene aromatisation that gives, with chrome oxides catalists,highest yields of para-xylene. The yields are the following, referring to aromatised ethylesene;

55% para-xylene
26% orto-xylene
19% ethylbenzene

The aromatisation catalists, tested up now, have the disadvantage of giving low yields of aromtisation in each pass and need frequent regenerations.

Do you think that Platforming catalists can be used to aromatise ethylesene?

If the Universal Oil Products Company had studied olefines aromatisation, I should be very grateful to you if you could send me some information on this matter.

Awaiting your kind reply,
I remain,

Very truly yours,

(Prof.G.Natta)

March 24,1953

Dr. Gustav Egloff
Universal Oil Products Co.
310 South Michigan Avenue
Chicago 4,Illinois,U.S.A.

Dear Doctor Egloff,

I heard only today the conferment of the Washington Award for 1953 upon you. I am very pleased to hear that, and am sending you my best compliments and wishes for the high and highly merited honor that has been conferred upon you.

With my best personal regards,I am

Yours sincerely

(G.Natta)

UNIVERSAL OIL PRODUCTS COMPANY

30 ALGONQUIN ROAD UOP DES PLAINES, ILLINOIS, U.S.A.

January 22, 1954

Dr. G. Natta,
Instituto Di Chimica Industriale
Del Politecnico,
Piazza Leonardo Da Vinci, 32,
Milano, Italy.

Dear Dr. Natta:

Dr. Parravano, who is now in the United States, is looking for a position of permanency here. Will you be good enough to advise your opinion as to his abilities, etc., so that I can recommend him, as I do not know too much about him. I met his father years ago, in Rome, and I am sure that the son must have good qualifications.

With kindest personal regards until we meet again - perhaps during the World Petroleum Congress, in June 1955, if not sooner,

Most sincerely yours,

Gustav Egloff

GE:EP

UNIVERSAL OIL PRODUCTS COMPANY

30 ALGONQUIN ROAD UOP DES PLAINES, ILLINOIS, U.S.A.

January 22, 1954

Dr. G. Natta,
Instituto Di Chimica Industriale
Del Politecnico,
Piazza Leonardo Da Vinci, 32,
Milano, Italy.

Dear Dr. Natta:

Please pardon the delay in answering your letter of December 14, relating to the suitability of Platforming catalysts in aromatizing ethylhexene. I discussed the matter with Dr. Haensel, who is the inventor of the process, and I quote as follows:

Dr. Haensel said that he did not think the Platforming catalyst was particularly suitable because it produced too much isomerization. When ethylhexene is passed over Platforming catalyst, the equilibrium mixtures of C8 hydrocarbons consist of 20% ortho xylene, 45% meta xylene, 20% para xylene and 15% ethylbenzene, which compares unfavorably with the results obtained by Professor Natta and given in the letter. Dr. Haensel further stated that one of the reasons that the chromium oxide catalyst apparently acted better was that it underwent periodic regeneration and did not have so high an average activity as the Platforming catalyst, at least along the line of isomerization.

Dr. Haensel is carrying on experiments on the aromatization of the various hydrocarbons. He does not favor recommending Platforming catalysts for this particular reaction at the present time.

Hoping the above information is of service to you, and with the Season's best greetings,

Most sincerely yours,

Gustav Egloff

GE:EP

AIR MAIL

UNIVERSAL OIL PRODUCTS COMPANY

30 EAST ALGONQUIN ROAD DES PLAINES, ILLINOIS, U.S.A.

April 13, 1953

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

Dear Dr. Natta:

Although belated, I do wish to express my deepest appreciation for your note of congratulation upon my being given the Washington Award for 1953. It was a delight to hear from you. Under separate cover, I am sending you a copy of the address I presented on the occasion of the Award, which you may find of interest.

With kindest regards and best wishes,

Most sincerely yours,

GE:EP Gustav Egloff

Original Air Mail
Copy Regular Mail

COPY

UNIVERSAL OIL PRODUCTS COMPANY

30 ALGONQUIN ROAD UOP DES PLAINES, ILLINOIS, U.S.A.

April 13, 1953

Dr. G. Natta,
Instituto Di Chimica Industriale
Del Politecnico,
Piazza Leonardo Da Vinci, 32,
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With kindest regards and best wishes,

Most sincerely yours,

Gustav Egloff

GE:EP

Original Air Mail
Copy Regular Mail

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS, U. S. A.

November 6, 1951

Prof. Dott. Ing. Giulio Natta,
Piazza Leonardo Da Vinci 32,
Milan, Italy.

Dear Professor Natta:

Many of us missed you and Mrs. Natta at the various chemical meetings held in New York in September, and wondered why you were not there. A number of other chemists had difficulty in obtaining visas, and a good many of us felt that serious errors had been committed in this regard.

I still look forward with keenest anticipation to a vist from you, and when you do, let us know so that we may assist you in any way we can while in the United States.

It was a pleasure, indeed, to learn that you liked the Dacron shirt, and likewise your friends. It is a very remarkable fabric.

I very much hope to see you again, if not in the United States, certainly in Italy. Until then, and with best good wishes to Mrs. Natta, who was especially kind to me while in Milan,

Most cordially and sincerely yours,

Gustav Egloff

GE:EP Dr. Gustav Egloff

Original Air Mail
Copy Sea Mail

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE UOP CHICAGO 4, ILLINOIS, U. S. A.

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Most cordially and sincerely yours,

GE:EP

Dr. Gustav Egloff

Original Air Mail
Copy Sea Mail

COPY

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS, U. S. A.

July 10, 1951

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

Dear Professor Natta:

At the request of Dr. Egloff, we are sending you herewith a Dacron shirt. We trust this will arrive safely.

Yours very truly,

E. V. Pherigo

EVP

E. V. Pherigo
Secretary to Dr. Egloff

17th October 1951

Ir. G. Egloff
Universal Oil Products Company
310 South Michigan Avenue
Chicago 4, Illinois - U.S.A.

Lear Dr. Egloff,

please excuse me delaying so long in thanking you for your very kind sending a Jacron shirt. I have been very pleased with your present and all my friends have admired very much the new tissue, which is still little known in Italy.

The more pleased I have been in receiving this gift, as in this laboratory we are actually interested in reactions of hydrocarbon oxydation and, among the various reactions studied, there is the oxydation of p-xylene to terephtalic acid, the starting material for Jacron.

I hoped to be able to come to America for the Chemical Congress, but, for reasons unexplainable to me (as I do not belong to any political party and have anticomunist ideas) American Consulate has not accepted the visa to my passport.

This surprised very much not only me but also all my friends and acquaintances, and it is not been possible to me to know the reason for which the visa has not been conceded. Perhaps, this is due to the fact that in 1947 I have been in Poland, and the Consulate functionaries might have considered this as a reason for not concessing the visa, according to american law.

Many friends of mine in America, among ther Dr. Fisher of the National Research Council, took interest for me to the State Department of Washington, but without success.

I hope to see you again, will you have the occasion to come to Europe.

Again many thanks and best greetings

Yours very sincerely

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS, U. S. A.

May 7, 1950

Dr. Giuseppe Zilli,
Savoy Plaza Hotel,
5th Avenue & 59th Street,
New York City, New York.

Dear Dr. Zilli:

Thank you for your letter of May 4, advising that you are in New York. I had already heard from Professor Natta that you were enroute to the United States.

It will be a pleasure, indeed, to see you and discuss your problems on Tuesday, May 15. In the event that for any reason I am not in, will you please ask for Dr. Deanesly.

I am leaving on May 19 for Europe, but do hope to see you before leaving. I plan seeing Professor Natta in Milan about June 11.

Looking forward to your visit with keenest anticipation,

Most sincerely yours,

GE:EP Gustav Egloff

Original Air Mail
Copy Regular Mail

Copy - Professor Giulio Natta

COPY

DR. ING. GIUSEPPE ZILLI

May 4, 1951

Savoy Plaza Hotel
5th Ave. & 59th St.
New York, N. Y.

Dr. Gustav Egloff
Universal Oil Products Co.
310 S. Michigan Avenue
Chicago, Ill.

Dear Dr. Egloff:

The writer who is visiting the U. S. is in possession of a letter of introduction to you from Prof. Natta of Milano (Italy).

It would be a pleasure to meet you and I would appreciate to be informed when it is more convenient for you to arrange an appointment in Chicago during this month of May.

Please address your letter to me at the Savoy Plaza Hotel (Room 2131 - 'Phone Eldorado 5-2600) New York, N. Y.

Thanking you in advance and with best personal regards, I remain,

Sincerely yours,

GIUSEPPE ZILLI (Signed)

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS, U. S. A.

August 8, 1949

Dr. Giulio Natta
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

Thank you very much for sending me a set of reprints of your studies. They look most interesting. I am passing them around our organization for their knowledge also.

When do you plan coming to the United States? We look forward to your visit.

You may be interested in the attached copy of my address on "Review of Present Status and Trends of Oil Chemistry" to be presented before the United Nations Scientific Conference on the Conservation and Utilization of Resources at Lake Success, New York on August 29.

Until we meet again,

Sincerely yours,

Gustav Egloff

GE:MP
Enc.

24 th April 1951

Mr. Gustav Egloff
Universal Oil Products
Chicago Illinois U.S.A.

Dear Mr. Egloff,

I had much pleasure in knowing that you will come to Italy in the early part of June. My wife and I shall be very glad if you will come to lunch or dinner with us, during your stay in Milan. We also hope to see you in Holland at the Petroleum World Congress.

I wish to inform you that Dr. Zilli of the Montecatini Co. is leaving today for U.S.A. to develop a plan of production and utilisation of olefines to the Montecatini factory of Ferrara, which will be built up with the cooperation of U.S.A.

I shall be very grateful to you, if you will be able to receive Dr. Zilli, eventually kindly assist him in the visits to U.S.A. plants of Chemical applications of olefines and give to him some advices on the various proceedings.

Hoping to see you in Europe soon

Yours sincerely

(Giulio Natta)

Milan, August 23, 1949.

Mr.
H. A. K N I G H T L E Y
Universal Oil Products Co
310 South Michigan Avenue
C H I C A G O, Illinois USA

Dear Mr. Knightley:

I thank you for your kind letters of August 2 and 3 and am awaiting with interest the data about the thermic and autothermic processes you promised us.

As I am leaving on August 31 for Argentine and shall not be back to Europe before the middle of October, please forward copies of your letters to Soc. Montecatini: Direzione Tecnica Progetti e Studi - Via Albania 18, Milano (Italy).

In the meantime, I wish more fully to explain to you what our problem is and what our conditions are, to complete the information already forwarded to you and to your European representative Dr. Prim.

1. - The cracking plant is likely to be erected at a place far away from any petroleum refining plant and, therefore, we are interested in obtaining exclusively products utilizable in the chemical industry. As returning liquid products to the refining plant is not easy, we would recycle them or use them as a fuel. On the contrary, we would be interested in extracting the aromatics present, if their separation turns out to be economical commercially.

2. - The yields indicated by you for the thermic cracking of kerosene are highly interesting, also regarding the yields of light aromatics.
I should like you to confirm to us if the yields of pure benzene are 11% and those of toluene 9% of the charge, as we feel from the data of Table IV, paragraph II of your letter of June 27. Would you possibly also inform us of what would be the approximate cost of installation as well as of running a plant for separating pure aromatics (benzene and toluene). Moreover, we should like to know if the non-aromatic liquid products, after extracting aromatics, may be sent again to cracking in the same plant (possibly together with C_3-C_4 saturated fractions).

./.

Milan, August 23, 1949

3. - As for the separation of the different olefins (ethyhene) propene), we are in the opinion that under the conditions prevailing in Italy processes of fractionating at low temperature (Linde system) present advantages over these generally used in America at high pressure.
Montecatini have much experience in low temperature fractionating as they own two plants for the extracting of ethyhene) from coke oven's gas.
Please inform us separately of the approximate cost of plant installation and data to determine the cost of running a plant for the fractionating of olefins from cracking-gases with the process envisaged by you.

4. - From your letter of June 27 we would understand that with the autothermic process olefin yields are very high, about 60% of the batch. Please inform us if those yields refer to a commercial plant in operation, or if they are data obtained from a pilot plant, in which latter case please tell us the capacity of said pilot plant. We would prefer if possible to adopt a process already experienced with a commercial plant.
We are worried about the higher costs of installation and operation and the lower yields in ethene extraction as to be foreseen with the autothermic process with air owing to the presence of relevant quantities of nitrogen. We therefore would ask you separately to point out to us in this case what the approximate costs are for the cracking plant and for the olefin separation plant, as well as any data that may enable us to compute the cost of running such plants.

5. - In your letter of August 2 you say that an autothermic cracking plant with oxygen would be little advisable owing to the cost of oxygen production. As to this point I could inform you that we are developing a project for the production of synthesis gas from partial combustion of methane with oxygen and that our forecast for that plant is a potentiality of 130-150,000 m^3/daily of oxygen. I think that it may be suitable to erect a bigger oxygen plant (for example of 180,000 m^3/daily) and in such case the cost of the surplus oxygen production would become comparatively low (about 0.6 ¢ a m^3).

./.

Milan, August 23, 1949.

We therefore are asking you to consider whether under these particular conditions the autothermic process with oxygen might turn out to be preferable over other processes.

Awaiting your news, I thank you for your kind attention. Please accept my best regards

Yours sincerely

F.to Prof. Natta

Milan, August 23, 1949.

Mr.
H. A. K N I G H T L E Y
Universal Oil Products Co
310 South Michigan Avenue
C H I C A G O, Illinois USA

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Milan, August 23, 1949.

We therefore are asking you to consider whether under those particular conditions the autothermic process with oxygen might turn out to be preferable over other processes.

Awaiting your news, I thank you for your kind attention. Please accept my best regards

Yours sincerely

F.to Prof. Natta

F.A. Trim

Rappresentative

UNIVERSAL OIL PRODUCTS COMPANY

Bush House
Aldwych
London W.C. 2

4th July, 1949

Prof. G.Natta
Piazza L.da Vinci 32
Milano, Italy

Dear Sir,

I note from a letter of our Chigago Office dated June 27th that they have written you in regard to Olefin Productio

My point in writing is to call your attention to this office which is at your service in fostering any projects you may have in mind, and I should be gled if you would call upon me for any assistence I might be able to give you.

I shall also make a point of trying to contact you, for the purpose of having a discussion, on my next visit to Italy.

Very truly yours

Firmato: F.A.Trim

14.9.1949

Prof.Dr.Gustav Egloff
Universal Oil Products Company
310 South Michigan Avenue
Chicago 4 -Illinois

Dear Professor Egloff,

Prof.Natta is go to Buenis Ayres and he charged me to reply to his letters.

I thank you very much for your reprint that I found very interesting.

I think Prof.Natta will be also very insterested on the argument.

Very truly yours

(Prof.N.Agliardi)

POLITECNICO MILANO

TUTO DI CHIMICA INDUSTRIALE

zm/

Copia

Milano, 23 Agosto 1949

Piazza Leonardo da Vinci - Telef. 292-125 - 292-126

Mr.N.A.Keightley
Universal Oil Products Co
310 Sonth Midrigan Avenue
Chicago
Illinois U.S.A.

Dear Mr.Keightley ,

Vi ringrazio per le Vostre gentili lettere del 2 e del 3 agosto ed attendiamo con interesse i dati sui processi termico ed autotermico che ci avete promesso.

Siccome io partirò il 31 Agosto per l'Argentina e non sarò di ritorno in Europa prima della metà Ottobre. Vi prego di inviare copia delle Vostre lettere alla Soc.Montecatini :Direzione Progetti e Studi - Via Albania,18 -Milano .

Desidero frattanto meglio precisarvi quale é il nostro problema e quali sono le nostre condizioni,completarne le notizie già trasmesse a Voi ed al Vs/rappresentante europeo Dr. Frim.

1°) E' probabile che l'impianto di cracking venga costruito in una località lontana da una raffineria di petrolio e perciò ci interessa di ottenere esclusivamente prodotti utilizzabili dall'industria chimica: Non essendo agevole ritornare alla raffineria i prodotti liquidi penseremmo di rimetterli in ciclo o usarli come combustibile.
Ci interessa invece poter estrarre gli aromatici presenti se la loro separazione risulta commercialmente economica .

2°) Le rese da Voi indicate per il cracking termico del cherosene sono molto interessanti anche per quanto riguarda le rese in aromatici leggeri.
Vi pregherei di confermarci se, come abbiamo interpretato dai Vostri dati della tabella IV cap.V.II della Vostra lettera del 27 Giugno ,le rese in benzolo puro sono del 11% e quelle in toluolo del 9 % rispetto alla carica .
Gradiremmo che Voi ci comunicaste possibilmente anche quale sarebbe il costo approssimato di impianto ,quello di esercizio per la separazione di aromatici puri (benzolo e toluolo) . Inoltre gradiremmo sapere se i prodotti liquidi non aromatici ,dopo estrazione degli aromatici ,possono essere rimandati al cracking nello stesso impianto (insieme eventualmente alle frazioni sature C_3-C_4).

3°) Per quanto riguarda la separazione delle diverse olefine (etilene,propilene) riteniamo che nelle condizioni italiane i procedimenti di frazionamento a bassa temperatura (sistema Linde) presentino dei vantag-

gi rispetto a quelli generalmente usati in America ad alta pressione.

La Montecatini ha una notevole esperienza nel frazionamento a bassa temperatura avendo due impianti per l'estrazione dell'etilene dai gas di cokeria.

Vi preghiamo di comunicarci separatamente il costo approssimativo dell'impianto ed i dati per determinare quello di esercizio per il frazionamento delle olefine dai gas di cracking con il procedimento da Voi previsto.

4°) Dalla Vostra lettera del 27 giugno risulterebbe che con il processo autotermico le rese in olefine sono altissime, circa il 60 % rispetto alla carica. Vi pregheremmo di comunicarci se tali rese corrispondono a quelle di un impianto commerciale funzionante, oppure provengono dai dati di un impianto pilota ed in questo caso quale é la potenzialità dell'impianto pilota.

Noi preferiremmo possibilmente adottare un procedimento che già sia stato provato in impianto commerciale.

Ci preoccupano le maggiori spese di impianto e di esercizio e le minori rese nell'estrazione dell'etilene che sono prevedibili con il processo autotermico con aria a causa della presenza di notevoli quantità di azoto. Vi pregheremmo perciò di indicarci separatamente in questo caso quali sono i costi approssimativi dell'impianto di cracking e quelle dell'impianto di separazione delle olefine e gli elementi che ci permettono di stabilire i relativi costi di esercizio.

5°) Nella Vostra lettera del 2 Agosto sconsigliate l'impianto di cracking autotermico con ossigeno a causa del costo della produzione dell'ossigeno. A questo proposito desidero informarVi che noi abbiamo in studio un progetto per la produzione di gas di sintesi per combustione praziale del metano con ossigeno e che prevediamo per tale impianto una potenzialità di 130-150.000 m^3/giorno di ossigeno. Io penso che potrebbe convenire installare un impianto di ossigeno più grande (ad es. di 180.000 m^3/giorno) ed in tal caso il costo della maggiore produzione di ossigeno sarebbe relativamente piccolo (circa 0,6 cents al m^3).

Vi preghiamo perciò di esaminare se in tali particolari condizioni il processo autotermico con ossigeno non risulterà preferibile agli altri procedimenti.

In attesa di Vostre notizie Vi ringrazio per la Vostra gentile attenzione e Vi prego di gradire i miei migliori saluti

23 Agosto 1949

Mr.N.A.Keightley
Universal Oil Products Co
310 South Midrigan Avenue
Chicago
Illinois U.S.A.

zm/

Dear Mr.Keightley ,

Vi ringrazio per la Vostra gentile lettera del 2 e del 3 agosto ed attendiamo con interesse i dati sui processi termico ed autotermico che ci avete promesso.

Siccome io partirò il 31 Agosto per l'Argentina e non sarò di ritorno in Europa prima della metà Ottobre. Vi prego di inviare copia delle Vostre lettere all'Soc.Montecatini :Direzione Progettazione Studi - Via Albania,18 -Milano .

Desidero frattanto meglio precisarvi quale é il nostro problema e quali sono le nostre condizioni,completando le notizie già fatte conoscere a Voi ed al Vs/rappresentante europeo Dr. Frisch.

1°) E' probabile che l'impianto di cracking venga costruito in una località lontana da una raffineria di petrolio e perciò ci interessa di ottenere esclusivamente prodotti utilizzabili dall'industria chimica. Non essendo agevole ritornare alla raffineria i prodotti liquidi penseremo di rimetterli in ciclo o usarli come combustibile.
Ci interessa invece poter estrarre gli aromatici presenti se la loro separazione risulta tecnicamente economica .

2°) Le rese da Voi indicate per il cracking termico del cheroseene sono molto interessanti anche per quanto riguarda le rese in aromatici leggeri.
Vi pregherei di confermarci se, come abbiamo interpretato dai Vostri dati della tabella IV a pag.11 della Vostra lettera del 27 Giugno ,le rese in benzolo puro sono del 1% e quello in toluolo del 3 % riferito alla carica .
Gradiremmo che Voi ci comunicaste ,possibilmente anche quale sarebbe il costo approssimativo di impianto ,quello di estrazione per la separazione di aromatici puri (benzolo e toluolo) . Inoltre gradiremmo sapere se i prodotti liquidi non aromatici ,dopo estrazione degli aromatici ,possono essere rimandati al cracking nella stessa impianto (insieme eventualmente alle frazioni a tre atomi di C_3-C_4).

3°) Per quanto riguarda la separazione delle diverse olefine (etilene,propilene) riteniamo che nelle condizioni in cui i procedimenti di fra-

zionamento a bassa temperatura (sistema Linds) presentino dei vantaggi rispetto a quelli generalmente usati in America ad alta pression

La Montecatini ha una notevole esperienza nel frazionamento a bassa temperatura avendo due impianti per l'estrazione dell'etilene dai gas di cokerie.

Vi preghiamo di comunicarci separatamente il costo approssimativo dell'impianto ed i dati per determinare quello di esercizio per il frazionamento delle olefine dai gas di cracking con il procedimento da Voi previsto.

4°) Dalla Vostra lettera del 27 giugno risulterebbe che con il processo autotermico le rese in olefine sono altissime, circa il 60 % rispetto alla carica. Vi pregheremmo di comunicarci se tali rese corrispondono a quelle di un impianto commerciale funzionante, oppure provengono dai dati di un impianto pilota ed in questo caso quale è la potenzialità dell'impianto pilota.

Noi preferiremmo possibilmente adottare un procedimento che già sia stato provato in impianto commerciale.

Ci preoccupano le maggiori spese di impianto e di esercizio e le minori rese nell'estrazione dell'etilene che sono prevedibili con il processo autotermico con aria a causa della presenza di notevoli quantità di azoto. Vi pregheremmo perciò di indicarci separatamente in questo caso quali sono i costi approssimativi dell'impianto di cracking e quelle dell'impianto di separazione delle olefine e gli elementi che ci permettono di stabilire i relativi costi di esercizi

5°) Nella Vostra lettera del 2 agosto sconsigliate l'impianto di cracking autotermico con ossigeno a causa del costo della produzione dell'ossigeno. A questo proposito desidero informarVi che noi abbiamo in studio un progetto per la produzione di gas di sintesi per combustione parziale del metano con ossigeno e che prevediamo per tale impianto una potenzialità di 130-150.000 m^3/giorno di ossigeno. Io penso che potrebbe convenire installare un impianto di ossigeno più grande (ad es. di 180.000 m^3/giorno) ed in tal caso il costo della maggiore produzione di ossigeno sarebbe relativamente piccolo (circa 0,6 cent. al m^3).

Vi preghiamo perciò di esaminare se in tali particolari condizioni il processo autotermico con ossigeno non risulterà preferibile agli altri procedimenti.

In attesa di Vostre notizie Vi ringrazio per la Vostra gentile attenzione e Vi prego di gradire i miei migliori saluti

Milan, August 23.1949.

Mr.
H. A. K N I G H T L E Y
Universal Oil Products Co
310 South Michigan Avenue
C H I C A G O, Illinois USA

Dear Mr. Knightley:

I thank you for your kind letters of August 2 and 3 and am awaiting with interest the data about the thermic and catathermic processes you promised us.

As I am leaving on August 31 for Argentine and shall not be back to Europe before the middle of October, please forward copies of your letters to Soc. Montecatini: Direzione Tecnica Progetti e Studi - Via Alberto 16, Milano (Italy).

In the meantime I wish more fully to explain to you what our problem is and what our conditions are, to complete the information already forwarded to you and to your European representative Dr. Prin.

1. - The cracking plant is likely to be erected at a place far away from any petroleum refining plant and, therefore, we are interested in obtaining exclusively products utilizable in the chemical industry. As returning liquid products to the refining plant is not easy, we would recycle them or use them as a fuel. On the contrary, we would be interested in extracting the aromatics present, if their separation turns out to be economical commercially.

2. - The yields indicated by you for the thermic cracking of kerosene are highly interesting, also regarding the yields of light aromatics.
I should like you to confirm to us if the yields of pure benzene are 11% and those of toluene 9% of the batch, as we feel from the data of Table IV, paragraph II of your letter of June 27. Would you possibly also inform us of what would be the approximate cost of installation as well as of running a plant for separating pure aromatics (benzene and toluene). Moreover, we should like to know if the non-aromatic liquid products, after extracting aromatics, may be sent again to cracking in the same plant (possibly together with C_3-C_4 saturated fractions).

./.

Milan, August 23, 1949

3. - As for the separation of the different olefins (ethene, propene), we are in the opinion that under the conditions prevailing in Italy processes of fractionating at low temperature (Linde system) present advantages over those generally used in America at high pressure.
Montecatini have much experience in low temperature fractionating as they own two plants for the extracting of ethene from coke oven's gas.
Please inform us separately of the approximate cost of plant installation and data to determine the cost of running a plant for the fractionating of olefins from cracking-gases with the process envisaged by you.

4. - From your letter of June 27 we would understand that with the autothermic process olefin yields are very high, about 60% of the batch. Please inform us if these yields refer to a commercial plant in operation, or if they are data obtained from a pilot plant, in which latter case please tell us the capacity of said pilot plant. We would prefer if possible to adopt a process already experienced with a commercial plant.
We are worried about the higher costs of installation and operation and the lower yields in ethene extraction as to be foreseen with the autothermic process with air owing to the presence of relevant quantities of nitrogen. We therefore would ask you separately to point out to us in this case what the approximate costs are for the cracking plant and for the olefin separation plant, as well as any data that may enable us to compute the cost of running such plants.

5. - In your letter of August 2 you say that an autothermic cracking plant with oxygen would be little advisable owing to the cost of oxygen production. As to this point I would inform you that we are developing a project for the production of synthesis gas from partial combustion of methane with oxygen and that our forecast for that plant is a potentiality of 130-150,000 m^3/daily of oxygen. I think that it may be suitable to erect a bigger oxygen plant (for example of 180,000 m^3/daily) and in such case the cost of the surplus oxygen production would become comparatively low (about 0.6 ₤ a m^3).

./.

Milan, August 23, 1949.

We therefore are asking you to consider whether under those particular conditions the autothermic process with oxygen might turn out to be preferable over other processes.

Awaiting your news, I thank you for your kind attention. Please accept my best regards

Yours sincerely

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS, U. S. A.

August 3, 1949

Prof. Dott. Ing. Giulio Natta
Via M. Pagano 54
Milano, Italy.

Dear Prof. Natta:

We now have your letter of July 26, 1949, and also a letter from Montecatini of July 23. We are pleased to have your inquiry and will give it our earliest possible attention. Should any questions arise as we make our studies, we will write you for further information.

Very truly yours,

UNIVERSAL OIL PRODUCTS COMPANY,

W. A. Keightley

WAK:E

Milano, 23 Luglio 1949.

UNIVERSAL OIL PRODUCTS COMPANY
310 South Michingan Avenue,
CHICAGO 4, Illinois U.S.A.

Ho ricevuto la Vostra lettera del 27 Giugno firmata da Mr. Keightley, e successivamente la lettera del Luglio di Mr. Egloff, di cui Vi ringrazio.

Insieme con l'ing. Orsoni della Società Montecatini ho avuto occasione di incontrare a Londra il Vostro Rappresentante Europeo Mr. Trim, al quale abbiamo esposto i problemi della Società Montecatini. Questa ultima Società ha scritto in data 23 Luglio precisandoVeli.

A proposito della Vostra lettera del 27 Giugno, la quale risponde ad una richiesta generica che io Vi avevo fatto, Vi pregherei di modificare ed adattare le Vostre proposte in armonia ai dati che abbiamo esposto a Mr. Trim, e che sono riassunti nella lettera della Società Montecatini del 23 Luglio.

Ho osservato che col procedimento di cracking termico (tabella IV, caso II) esposto nella Vostra lettera del 27 Giugno, si ottiene una frazione liquida C5-400 °F, contenente il 75% di aromatici.

Vi confermo che questi prodotti hanno in Italia un alto valore, perchè la loro produzione è modesta e una parte del fabbisogno deve essere coperta mediante l'importazione.

Vi pregherei di confermarmi la possibilità di poter ricavare da detta fase liquida il benzolo ed il toluolo allo stato puro, tale da rendere i diversi prodotti atti al successivo impiego nell'industria chimica.

Gradite i miei migliori saluti.

Milano, 26 July 1949

Messrs.
UNIVERSAL OIL PRODUCTS CO.
310 South Michigan Avenue,
C H I C A G O 4, III

Dear Sirs:

I thank you for your letter of June 27 signed Mr. Keighley and following letter of July 3 by Mr. Egloff.

I have had the pleasure, together with dr.Orsoni of the Montecatini Company, to meet your European Representative in London, Mr. Trim, whom we have stated the problems of Montecatini. This Company wrote to you on July 23, on the subject.

Refering to your letter of June 27, answering to a general inquiry I had submitted to you, I am asking you now to change and adapt your proposals to data we exposed to Mr. Trim, summarized in Montecatini's letter of July 23.

I noted that a C_5-400°F liquid fraction containing 75 % of aromatic compounds is obtained by the thermic cracking process (Table IV, 2nd. case) illustradet in your letter of june 27.

I confirm that these products have a high market value here in Italy because their production is quite small and part of requirements are to be covered by imports.

Please confirm whether pure benzene and toluene are to be obtained from above mentioned liquid phase se as to dispose of products apt to be re-used in the chemical industry.

With best regards, I am,

sincerely yours

Milan, July 26, 1949

Messrs.

UNIVERSAL OIL PRODUCTS CO.,

310 South Michigan Avenue,

C H I C A G O 4, Ill.

Dear Sirs

~~Gentlemen:-~~

I thank you for your letter of June 27 signed Mr. Keighley and following letter of July 3. by Mr. Egloff.

I have had the pleasure, together with dr. Orsoni of the Montecatini Company, to meet your European Representative in London, Mr. Trim, whom we have stated the problems of Montecatini. This Company wrote to you on July 23, on the subject.

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I confirm that these products have a high market value here in Italy because their production is quite small and part of requirements are to be covered by imports.

Please confirm whether pure benzene and toluene are to be obtained from above mentioned liquid phase so as to dispose of products apt to be re-used in the chemical industry.

With best regards, I am, ~~Gentlemen,~~

sincerely yours

F. A. TRIM

REPRESENTATIVE

UNIVERSAL OIL PRODUCTS COMPANY

OWNER & LICENSOR OF THERMAL & CATALYTIC REFINING PROCESSES

CHICAGO, U.S.A.

CHICAGO 4
310, SOUTH MICHIGAN AVENUE
CABLE ADDRESS "DUBBSPRO" CHICAGO
BENTLEY CODE

TELEPHONE TEMPLE BAR 7331 & 7332
CABLE ADDRESS "DUBBSPRO" LONDON
INLAND TELEGRAMS
"DUBBSPRO" ESTRAND LONDON

BUSH HOUSE
ALDWYCH
LONDON, W.C.2

18 July 1949.

Prof.Dott.Ing. GIULIO NATTA,
Midland Hotel
MANCHESTER.

Dear Professor Natta,

It was pleasurable to be the recipient of your letter of 11 July 1949 from Milan, received this morning, and to learn of your visit to England.

I have spoken to the secretary of Dr. Rossi this morning and have arranged that we keep a rendezvous at 10.30 here on Monday 18th July.

I shall be very happy to see you, and should there be any change in your plans I hope you will let me know but I will definitely keep some time open for your convenience on Monday. I shall also be glad to welcome Ing. Orsoni who I understand is accompanying you.

Yours very truly,

F.A.TRIM

FT/EF.

11.7.09

Dear Mr. Trim

I thank you very much for your kind letter of the 4th July. I shall be very glad to see you in Italy. However I am coming to England myself on the 13th inst. I shall be in Liverpool and Manchester for the second part of this week. On my way back I might stop in London (Hotel Park Lane) on Monday 18th and should be delighted to see you if possible. My Manchester adress is Midland Hotel. Please let me hear from you on the 15th or 16th there.

With best regards

Yours sincerely

Mr. F.A. Trim
Bush House
Aldwych
London, W.C. 2

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS, U. S. A.

July 15, 1949

Prof. Giulio Natta
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

Just received your letter of June 11 relating particularly to the production of olefins. We will study this matter and advise you just as quickly as we can.

Sincerely yours,

Gustav Egloff

GE:MP

UNIVERSAL OIL PRODUCTS COMPANY

310 SOUTH MICHIGAN AVENUE UOP CHICAGO 4, ILLINOIS, U. S. A.

July 15, 1949

Prof. Giulio Natta
Piazza Leonardo da Vinci 32
Milan, Italy

Dear Dr. Natta:

Just received your letter of June 11 relating particularly to the production of olefins. We will study this matter and advise you just as quickly as we can.

Sincerely yours,

GE:MP

Gustav Egloff

COPY

We are now doing process and engineering work on these two schemes and ww at the moment cannot give you exact capital cost figures nor operating figures. For your information, however, we we would suggest the thermal plant to produce 18,000 metric tons/ year of ethylene would cost, erected in the U.S.A. including royalties, to be somewhere in the neighborhood of $ 12,000,000. Probably the autothermic plant would cost 10 to 20 % more, while the operating costs of the autothermic plant probably would be lower than those of the thermal plant because of lower refrigeration and requirements and lower charge stock requirements. The exact comparisons can be made only after considerable process and engineering work, but we would suggest that the operating costs would be between 1 and 2/pound of ethylene produced.

We believe that with all equipment purchased in the U.S.A. such plants could be erected in Germany within fourteen or fifteen months from the signing of the contract.

If this preliminary information is interesting to you, and if you still have in mind a specific scheme, please give us your exact requirements and we will give you more complete information when our development work has been completed.

Should any of your people come to the United States we would be glad to see them in Chicago.

Yours very pruly

UNIVERSAL OIL PRODUCTS COMPANY

W.A. Keightley

TABLE III

CASE II

ESTIMATED YIELDS AND PRODUCT DISTRIBUTION FROM AUTOTHERMIC CRACKING OF ARABIAN KEROSENE TO PRODUCE 18,000 METRIC TONS/YEAR OF ETHYLENE

Charge to Reactor

	Lbs/Hour	M/Hour	SCF/Hour	B/SD
Kerosene	15.450	69.8	-	1335
Air	20.300	702.8	266,400	-
Total	35.750	793.6		

Reactor pressure 25 psig.
Conversion to C_4 and lighter 75 wt. %

Reactor Effluent

	Lbs/Hour	Libbre M/Hour	SCF/Hour
H_2	134	67.0	25.400
C_1	1,575	98.4	37.250
$=C_2$	5,160	184.3	69.800
C_2	324	10.8	4.090
$=C_3$	2.690	64.0	24.250
C_3	101	2.3	872
$=C_4$	626	11.6	4.400
$=C_4$	1.010	18.0	6.850
C_4	181	3.1	1.175
C_{5+}	2.010	17.9	6.780
CO	1.445	51.6	19.550
CO_2	2.685	61.0	23.100
N_2	15.570	556.0	210.500
H_2O	2.190	122.0	46.300
total	35.706	1.268.0	480.297

Yields

C_2H_4	18.450	MT/Yr.
C_3H_6	9.640	"
C_4H_8	3.620	"
C_4H_6	2.240	"
Total	33.950	MT/Yr.

C_{5+} Material - Estimated M.W. = 112

Aromatic Content	Weight %
Benzene	1.73
Toluene	2.25
Xylenes	2.90
Naphthalene	2.87
Mid-Naphthalene	1.60
total	12.35

TABLE IV

CASE II

ESTIMATED YIELDS AND PRODUCT DISTRIBUTION FROM LOW PRESSURE THERMAL CRACKING OF ARABIAN KEROSENE TO PRODUCE 18.000 METRIC TONS/YEAR ETHYLENE

Charge to Heater

	Lbs/Hour	M/Hour	B/SD
Kerosene	29.900	173.5	2.580
Steam	12.500	694.0	-
total	42.400	867.5	

Steam/Oil = 4/1 Mol Ratio
Cracking Temperature = 1400°F.
Coil Outlet Pressure = 15 psig.
Conversion to C_4 and Lighter = 61.5 wt. %

Heater Effluent

	Lbs/Hour	M/Hour	
H_2	300	150.0	
C_1	5.770	295.5	
C_2H_2	30	1.2	Yields
$=C_2$	5.170	184.5	
C_2	1.755	57.8	C_2H_4 - 18.450 MT/Yr.
$=C_3$	4.610	109.5	
C_3	450	10.2	C_3H_6 - 16.500 "
$==C_4$	868	16.1	
$=C_4$	898	16.0	C_4H_8 - 3.210 "
C_4	149	2.6	
C_5-400	10.700)	95.3	C_4H_6 - 3.100. "
Bottoms	1.195)		
CO and CO_2	234	6.5	total 41.260 "
H_2O	12.266	680.0	
total	42.375	1.565.2	

C_5-400 Material - Estimated B.P. = 118

Aromatic Content	Weight %
Benzene	32.0
Toluene	25.0
Xilenes and Et. Benzene	15.0
C_9 to 400°F. Aromatics	3.0
total	75.0

Milano, 15 marzo 1949

Mr. Gustav Egloff
Universal Oil Products Co.
Chicago (Illinois) U.S.A.

Dear Mr. Egloff,

I thanke you very much for the interesting reprints of your works that you kindly have sent to me. I thanke you also for the greetings sent through the Ing. Bazzocchi.

The field of petrochemie have great interest for us. Some of the most important chemical Companies in union with the bigest Rubber Company of Italy are thinking to come to an agreement to build a cracking plant for the production of chemicals, synthetic rubber and plastics. This cracking plant should probably be built near the town of Ferrara, because there exists allready a plant for the production of Buna S and of Styrene.

We have not till now decided which process we will chose. The "Catarole" process of Petrochemicals Ltd. of Manchester seems to be interesting and Mr. Kind gave us a lot of informations on it. I should be very greatful to you il you could inform me if there are other processes of cracking more suitable than this. We are interested for a production of about 20.000 - 30.000 t yearly of olefins from the oils of Midle East.

We would like to krow the yelds in olefins and other products, the cost of the production and of the plant and the delivery time of it from U.S.A.

During my visit to Universal Oil Co. in Chicago in 1947, I heard of an autothermic process of cracking with steam and oxygen. Has this process pratic applications?

Near our plant of Ferrara there are natural gas (dry methan) and we have also considered the possibility to build a Fischer-Synthese plant by higher temperature, by which the yeld in C_4 reaches the 30 %, and to crack the higher products, but the cost of olefins through this process seems to be more expensive.

I shall be greatfull to you if you would be se kind to tell me your opinion on the matter.

If you or other people of Universal Oil Co. will have the opportunity to come to Europe we shall be very glad to meet you. In any case somebody of us will probably come to U.S.A. and will be very glad to meet you there.

Many regards from me wife and from me.

Yours sincerely

Milano, 3 Luglio 1947

copy

Mr. Gustav Egloff
Universal Oil Products
Chicago Illinois U.S.A.

Dear Mr. Egloff,

I am very greatful to you for having sent to me your very interesting publications and I thank you very muck for it.

I am leaving today for the U.S.A. where I shall remain about a month I shall be in New York about the Yth and should be very glad to have the opportunity to meet also you and to visit your research Laboratory. I suppose that you will go to London for the International Congress of Chemistry. I shall not be back in time for it, but I hope to see you in the U.S.A. before your departure, if it is possible. You can let me know something to the following adress:

Natta - by Di Veroli 14 25 Wall Street - New York

My wife sends her greetings and with my best regards. I am your very faithbully

In original letter was mistaken the number of the ~~we~~ address of Di Veroli.

(The right number is n. 14)

That is Di Veroli 14 Wall Stree New York

Milano, 4 Luglio 1947

C O P Y

Mr. Gustav Egloff
Universal Oil Products
Chicago Illinois U.S.A.

Dear Mr. Egloff,

I am very greatful to you for having sent to me your very interesting publications and I thank you very muck for it.

I am leaving today for the U.S.A. where I shall remain about a month I shall be in New York about the 7th and should be very glad to have the opportunity to meet also you and to visit your research Laboratory. I suppose that you will go to London for the International Congress of Chemistry. I shall not be back in time for it, but I hope to see you in the U.S.A. before your departure, if it is possible. You can let me know something to the following adress:

Prof.Natta - by Di Veroli 14 Wall Street - New York

My wife sends her greetings and with my best regards. I am your very faithbully

firmato: Prof.G.Natta

PS: In original letter was misteken the number of the adress of Di veroli.
That is: by Di Veroli - 14 Wall Street - New York

TELEPHONE:
WELBECK 2833.

18, DORSET HOUSE
GLOUCESTER PLACE
LONDON, N.W.1.

14 July 1947.

Prof. Ing. Giulio Natta,
C/o Di Veroli,
14 Wall Street,
New York.
U.S.A.

Dear Prof. Natta,

It is a pleasure indeed to receive your letter of July 3rd advising that you are leaving for the United States. I shall be most pleased to meet your good wife and self again.

I expect to arrive in New York, stopping at the Chemist Club, August 3rd or 4th, on present indications.

Our Research Laboratories are in Chicago where our headquarters are also at 310 South Michigan Avenue. It will be a pleasure indeed to have you visit our laboratories at your convenience.

Looking forward to our meeting again with keenest anticipation, and, until then, kindest regards to Mrs. Natta and your good self,

Sincerely,

Gustav Egloff

Chemist Club 52 E 41
Lexington 27649

GE/EF.

UNIVERSAL OIL PRODUCTS COMPANY
OWNER & LICENSOR DUBBS CRACKING PROCESS
CHICAGO 4, U.S.A.

NEW YORK 20, N.Y.
50 WEST 50TH STREET

310 S. Michigan Ave,
Chicago, June 4, 1946

Professor Giulio Natta, Director
Institute of Chemical Industry
Piazza Leonardo Da Vinci 32
Milano, Italy

Dear Dr. Natta:

It was good to hear from you and to learn that you are still in the land of the living and have been carrying on researches during the war, copies of which you were kind enough to send me. I am passing your reprints on to various members of our organization and will advise you of any useful comments that may be developed therefrom.

Under separate cover we are pleased to forward reprints of books and articles which have been published by Universal Oil Products Company Research Laboratories.

Will you be good enough to give my best good wishes to Professors Levy and Padevani and others of your staff. Should you be in Chicago at any time it will be a pleasure indeed to see you and your good wife. You were both most kind to me while I was in Italy.

Until we meet again,

Most sincerely and cordially yours,

GE:MP

Gustav Egloff

COPY

Milano 15.3.1946

GN/mr

Mr. Gustav Egloff
Universal Oil Products
Chicago Illinois U.S.A.

Dear Sir,

I remember your kindness, during the last Congress of Chemistry in Roma in 1938 and I am very pleased to have the opportunity of writing to you again hoping that a long period of peace will allow us to restablish soon the scientifical bounds among the different Countries.

I believe that our Italien Chemical Reviews have not yet arrived in America, therefore I am sending you now some new works, which might interest you.

I have worked on the Oxosynthese, reaction of general character for olefinic bounds. I do not know if that reaction has allready been studied in America and I believe it will probably interest your chemical Industry.

In my laboratory we have worked very much on the kinetic of chain-reactions and on the catalyse, particulary on the elective hydrogenation of carboxylic group (or of the acetylenic bound and diolephinic bound) without altering the olefinic bound.

I think that what we have done here in our scientifical laboratories must be very little in comparison to what has been done in yours during these last years, but if there is something which interest you, I shall be very glad to hear of it. We have not yet received the American Reviews and I should be very greatful to you if you would be so kind as to sending me some works of yours and of your collaborators.

My wife and I send you our best regards hoping that it will be possibile to meet soon again in Italy.