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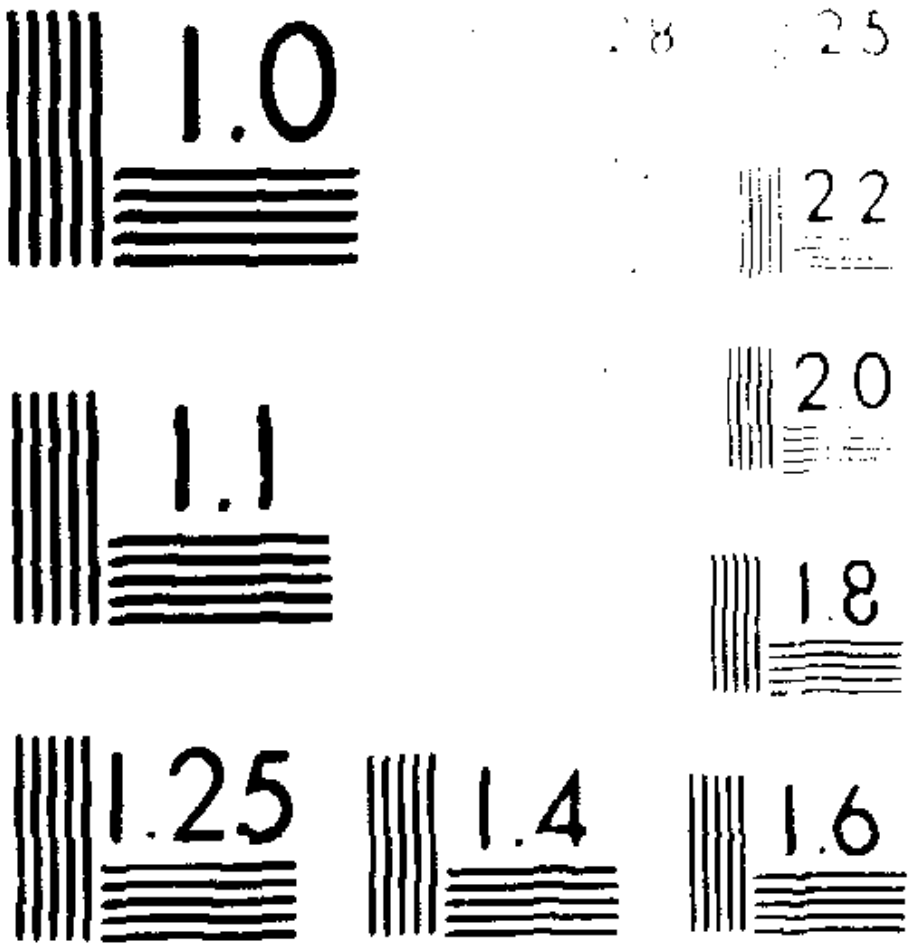
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China. MISSION TO

BEIJING RESEARCH INSTITUTE OF CHEMICAL INDUSTRY

FINAL REPORT

submitted

by

DR. LUCIANO LUCIANI

Post: DP/CPR/80/009/11-02B

Mission Duration: 4 October to 15 October 1982

TO:

UNITED NATIONS DEVELOPMENT PROGRAMME IN CHINA

attention MR.A.W. SISSINGH (SIDFA)

REPORT ON THE MISSION AT:

BEIJING RESEARCH INSTITUTE OF CHEMICAL INDUSTRY from monday October 4, I982 to Friday October I5, I982.

REFERENCE:PRU 82/PPRS/APP/VAT/JT

DR. LUCIANO LUCIANI

37, MC ALISTER

44I00 FERRARA /ITALY

MISSION AT :

BEIJING RESEARCH INSTITUTE OF CHEMICAL INDUSTRY IN BEIJING,CHINA

From Monday Oct 4, I982(arrival) to Friday Oct I5, I982 (departure).

Main scope of the mission was to hold lectures and to discuss in detail problems and questions concrning the most advance knowledge about:

-polyolefines catalysts(preparation-performance-mechanism and structure).

-processes for producing polypropylene(homo and block-copolymers),polyeth-ylene(HDPE-MDPE-LDPE-LLDPE)in high and low pressure, EPM and EPDM rubbers

-organization of a research center and scaling up.

-applications and main new resins under development.

-other

TitLes and summary of some lectures are herewith endclsed as annexes(from I-7).

The managing people I met is reported in annex 8.

Every morning I held a lecture for about 2.30-3.00 hours.Every afternoon I had discussions about questions arising from the lecture-People attending the presentions were around sixty and in some lectures more.

I met technicians very well prepared, active and really very interested in learning Good lab. results were and are achieved reproducing indications reported in the most advanced literature and patents.

However it seems not to be some thing new or original in the research field here carried out Lab. equipments for polymerization, characterization etc, are judge good.

Main lack is a tradition and a school expecially in studying, calculating, developing the scaling-up of processes from lab results to industrial scale.

They need services(engineers expert in scaling up) and equipments(computers pilot plants and devices).

Concluding : I have found nucleating agents and nucleation is close to start. For helping to short the developing time it is necessary to create a school with some consultant(experts) especially selected and devoted for a sufficiently long period.

S U M M A R Y

GRUPPO MONTEDISON

MONTEPOLIMERI
FE/VDG/RIC
Centro Ricerche Giulio Natta

ANNEX 1

MONTEDISON HIGH YIELD POLYPROPYLENE PROCESS

VALIDITY AND ADVANTAGES

FERRARA, FEBRUARY 1982

I N D E X

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ANNEX 2

LINEAR LOW DENSITY POLYETHYLENE BY A NEW ECONOMICAL SLURRY PROCESS

Process, Products, and Applications

Catalysts and Catalysis, Kinetic and Correlation Between Structure and Polimeri Properties

Ferrara, October 1982

I N D E X

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Centro Ricerche Giulio Natta
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ANNEX 3

HOW TO ORGANIZE AN ANALYSIS AND CHARACTERIZATION CONTROL LABORATORY FOR POLYOLEFINES

Ferrara, October 1982

MONTEPOLIMERI S.p.A.
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FERRARA

ANNEX 4

CHOICE AND OPTIMIZATION OF REACTORS FOR ALPHA-OLEFINS POLYMERIZATION BY ZIEGLER-NATTA CATALYSTS.

Ferrara, October 1982

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ANNEX 5

SOME NOTES ON CONVENTIONAL AND ON ADVANCED POLYPROPYLENE CATALYSTS

Ferrara, October 1982

I N D E X

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ANNEX 6

PRODUCTS AND PROCESSES DEVELOPED AT FERRARA RESEARCH CENTER.

Ferrara, October 1982

I N D E X

ANNEX 7

GIULIO NATTA RESEARCH CENTER - FERRARA

MONTEPOLIMERI PLASTICS RESEARCH CENTER

Structure and Organization, Activities, Some Results, Future

October, 1982

ANNEX 8

年 月 日 第 页

Participants in the meeting

on oct. 5.

WU JIN CHEN . president of the Institute

XIE YI . deputy director of lab. of high polymers

LU LI XIN . pricipal enginner of lab. of plastic processing,

HUANG YU KONG .deputy director of lab. of chemical engineering

YAN LIAN XI .engineer, department of chief engineers.

ZHAI REN LEE. engineer, department of research work management.

HU BO XIONG. head of department of scientific and technological cooperation ,bureau of forein affairs. ministry of chemical industry.