

CHEMICAL HERITAGE FOUNDATION

J. PAUL HOGAN

Transcript of an Interview
Conducted by

James J. Bohning

at

Bartlesville, Oklahoma

on

10 February 1995

(With Subsequent Additions and Corrections)

ACKNOWLEDGMENT

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J. PAUL HOGAN

1919 Born in Lowes, Kentucky, on 7 August

Education

1942 B.S., chemistry and physics, Murray State University

Professional Experience

1942-1943 Chemistry and Physics Instructor, Mayfield High School
1943-1944 Physics Instructor, Oklahoma State University of Agriculture and Applied
Science

Phillips Petroleum Company

1944-1947 Research Chemist
1947-1954 Project Leader
1954-1960 Group Leader
1960-1977 Section Supervisor
1977-1985 Senior Research Associate
1985 Retired
1985-1986 Consultant

1986-1993 Independent Consultant, Neuman, Williams, Anderson, and Olson

Honors

1969 ACS Award for Creative Invention, American Chemical Society
1971 Honorary D.Sc., Murray State University
1972 Pioneer Chemist Award, American Institute of Chemists
1972 Distinguished Alumnus Award, Murray State University
1972 Lifetime Appointment as Kentucky Colonel by Governor of Kentucky
1976 Inventor of the Year Award, Oklahoma Bar Association, Copyright and
Patent Section
1981 Man of the Year Award for Outstanding Achievement in Polymeric
Materials, Society of Plastics Engineers
1987 Perkin Medal Award, Society of Chemical Industry

ABSTRACT

The interview begins as **J. Paul Hogan** discusses his family background and early education in Lowes, Kentucky. Next follows a description of Hogan's college education at Murray State and teaching experiences at the high school and college levels. The central portion of the interview focuses on Hogan's career with Phillips Petroleum Company, which began after his position teaching physics at Oklahoma A&M was eliminated. Hogan's first work at Phillips was with Grant Bailey and Alfred Clark on double bond shifting. After about five years, he switched to the Fischer-Tropsch project, preparing and commercializing a process for the production of hydrocarbon. Next Hogan worked with Clark, and eventually others, beginning by investigating the nickel oxide catalyst and using it to produce 223-trimethylpentene and 223-trimethylpentane. Ultimately Hogan and Banks discovered polypropylene, and the interview examines some of the many patents and papers stemming from this research. Throughout the interview, Hogan comments on his relationships with Clark, Bailey, Robert L. Banks and Clarence Lanning. He also discusses the reaction of Phillips' management to the production of polymers, the work and decisions leading to the commercialization of polyethylene before polypropylene, and the legal situations surrounding the commercialization of polypropylene. Towards the end of the interview, Hogan examines Phillips' attitude toward publishing, records retention, and R&D; his own work on copolymerization; and his views on the research process and the roles of theory and intuition in it. The interview concludes with a discussion of the meaning of the Perkin Medal and the future of chemical R&D.

INTERVIEWER

James J. Bohning is Professor of Chemistry Emeritus at Wilkes University, where he was a faculty member from 1959 to 1990. He served there as chemistry department chair from 1970 to 1986 and environmental science department chair from 1987 to 1990. He was chair of the American Chemical Society's Division of the History of Chemistry in 1986, received the Division's outstanding paper award in 1989, and presented more than twenty-five papers before the Division at national meetings of the Society. He has been on the advisory committee of the Society's National Historic Chemical Landmarks committee since its inception in 1992. He developed the oral history program of the Chemical Heritage Foundation beginning in 1985, and was the Foundation's Director of Oral History from 1990 to 1995. He currently writes for the American Chemical Society News Service.

TABLE OF CONTENTS

1	Childhood, Early and College Education High school in Lowes, Kentucky. B.S. in chemistry and physics from Murray State University.
4	Early Career Teaching position at Mayfield High School. Position teaching physics in Army pre-flight school at Oklahoma A&M.
6	Early Work for Phillips Petroleum Company Work on Fischer-Tropsch project. Work on Nickel oxide catalyst project.
14	Polypropylene Discovery and Patent Discovery process. Patents and papers on polymerization.
26	Later work for Phillips Petroleum Company Perkin Medal award. Copolymerization of polyethylene. Views of intuition and theory in research process. Comments on atmosphere at Phillips.
37	Notes
38	Index

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3. John F. Henahan, ed. "The Chemical Innovators—8. John P. Hogan: The near-perfect molecule," *Chemical & Engineering News*, Nov. 2, 1970: 38-40. Quotes, pp. 38, 40.
4. J. P. Hogan and R. L. Banks, low-pressure process for production of high-density polyethylene," U.S. Patent 2,825,721, issued March 4, 1958 (application filed 27 January, 1953, Serial Number 333,576).

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INDEX

A

Alkylation catalysts, 21
Allied Chemical, 36
Alumina, 25
Arnold, Phil, 21

B

1-butene, 8
2-butene, 8, 9, 12
Bailey, Grant, 6-8, 11, 28
Banks, Robert L., 9-12, 16, 17, 21, 22, 26, 30, 34
Barkley, Alban W., 1
Bartlesville, Oklahoma, 6, 14, 28
Borger, Texas, 12
Butene, 12

C

C₈, 12
Carbon monoxide, 9, 13
Catalysis Institute, 35
Celanese Chemical Company, Inc., 23, 36
Chromium, 16-20, 22, 25, 26, 35
Chromium oxide, 14, 26
Clark, Alfred, 8-11, 15, 16, 21, 22, 26, 29
Codimerization, 12
Coke, 18
Copolymerization, 27

D

Dewey, Oklahoma, 7
Diazomethane, 20
Dimerization, 12, 13
Disproportionation, 21
Divalent chromium, 26
E. I. Dupont de Nemours and Co., Inc., 24, 27

E

Ethylene, 8, 12, 18-20, 26, 31
Ethylene Polymerization Catalysis over Chromium Oxide, 26

F

Fischer-Tropsch process, 20
Fischer-Tropsch project, 9-12

G

Glendale, California, 2
Glendale Community College, 2
Grace, Peter, 34

H

H₂S, 14
Hercules, Inc., 24
Heterogeneous catalysis, 6
Hexavalent chromium, 20, 26
Hexene copolymer, 27, 28
Hogan, J. Paul
 aunt, 4
 brothers, 2, 4, 32
 effect of depression on family, 4
 father, 1
 mother, 1
 sister, 2
 teaching experience at Oklahoma A&M, 5
 uncle, 4
Homogenous catalysis, 6
Hydrofluoric acid, 21
Hydrogen, 9, 12, 13, 31

I

ICI [Imperial Chemical Industries], 19
Isobutane, 8, 9, 12
Isooctane, 12

J

Jackson purchase, 2
Johnston, R. A., 4, 5

L

Lanning, Clarence, 10, 14, 21
Loves High School, 2
Loves, Kentucky, 1, 2
Lyon, France, 35

M

4-methyl-1-pentene, 19
Marlex, 29
Mayfield, Kentucky
Mercaptans, 14
Montecatini, 24
Murray State College, 3
Murray State University, 2-5

N

Natta, Giulio, 34
Nickel, 16-19, 24
Nickel oxide, 11, 14
Nitrogen, 13, 14
Nobel Prize, 34
Northwestern University, 35

O

Ohio River, 2
Oklahoma Agricultural and Mechanical College, 4,5
 Army pre-flight school, 5, 6
Oklahoma State University, 4, 6, 7
Oxygen, 14

P

Paducah, Kentucky, 2
Paraffin hydrocarbon, 16
Perkin Medal, 26, 33, 34
Phillips Petroleum Company, 5-8, 14, 22-29, 31-36
 Research and Development, 26, 27, 32, 35
 Research Center, 12
 Sales Service Laboratory, 27
Phillips, Frank, 14
Polyethylene, 19, 20, 22, 25, 27, 31, 32, 36
Polymer chemistry, 17
Polymerization and copolymerization, 25-28, 35
Polymerization of Light Olefins over Nickel Oxide-Silica-Alumina, 25
Polymethylene, 20
Polypropylene, 14, 15, 18-20, 22-25, 29, 30, 34
Propane, 16
Propylene, 8, 12, 16-19, 25

R

Reagan, Ronald, 34
Redlands, California, 4
Redlands, University of, 4
Reid, James A., 11, 16

S

Schultz, Walter, 6
Smith-Hughes Agriculture, 3
Solvay, 23
Standard Oil of Indiana, 20, 24
Stillwater, Oklahoma, 5, 6, 28
Sulfur, 14
Sweeny, Texas, 12, 14

T

223-trimethylpentene, 12
Trimerization, 13
Triolefin process, 21
Trivalent chromium, 20
Tulsa, Oklahoma, 32

U

Union Carbide, 36

W

Washington, D.C., 26
Western Kentucky University at Bowling Green, 1
Woolarock [Ranch], Oklahoma 14
World War I, 4

X

Xylene, 6

Y

Yugoslav Academy of Science, 33

Z

Ziegler, Karl, 34
Zucchini, --, 26