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WALTER H. STOCKMAYER

Transcript of an Interviews
Conducted by

Jeffrey L. Sturchio and Peter J. T. Morris

in

Philadelphia, Pennsylvania

on

25 August 1986 and 22 January 1992

(With Subsequent Corrections and Additions)

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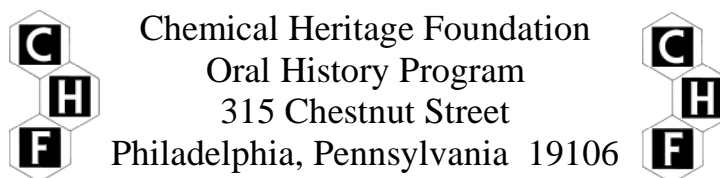
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WALTER H. STOCKMAYER

Education

1935 S.B., Massachusetts Institute of Technology
1937 B.Sc., University of Oxford
1940 Ph.D., Massachusetts Institute of Technology

Professional Experience

Massachusetts Institute of Technology
1937-1938 Teaching Fellow in Chemistry
1938-1941 Instructor and Research Fellow

1941-1943 Instructor, Columbia University

Massachusetts Institute of Technology
1943-1946 Assistant Professor of Chemistry
1946-1952 Associate Professor of Physical Chemistry
1952-1961 Professor of Physical Chemistry

Dartmouth College
1961-1962 Professor of Chemistry
1962-1967 Class of 1925 Professor
1967-1979 Albert W. Smith Professor
1963-1967 Chairman, Chemistry Department
1973-1976 Chairman, Chemistry Department
1979- Professor Emeritus

Honors

1935-1937 Rhodes Scholar, Oxford University
1946 Fellow, American Academy of Arts and Sciences
1954-1955 Guggenheim Fellowship
1955 Stas Medal, Société Chimique de Belgique
1956 National Academy of Sciences
1958 Bourke Lecturer, Faraday Society
1960 College Chemistry Teacher Award, Manufacturing Chemists Association
1966 Polymer Chemistry Award, American Chemical Society
1972 Honorary Doctorate, Université, Louis-Pasteur, Strasbourg, France
1974 Debye Award in Physical Chemistry, American Chemical Society

- 1975 High Polymer Physics Prize, American Physical Society
1976 Honorary Fellow, Jesus College, Oxford
1977 Honor Scroll, Massachusetts Institute of Chemists
1978 Humboldt Preis, Humboldt Foundation, West Germany
1982 Distinguished Lecturer Award, Polymer Science Department, University of
Massachusetts
1983 Honorary L.H.D., Dartmouth College
1987 Service Award, Division of Polymer Chemistry, American Chemical Society
1987 National Medal of Science
1988 Richards Medal, Northeastern Section, American Chemical Society
1988 Polymer Chemistry Division Award, American Chemical Society

ABSTRACT

In the first interview, Walter Stockmayer describes early influences directing him towards the chemical sciences. Stockmayer first became interested in the mathematical aspects of physical chemistry as an undergraduate at MIT. A Rhodes Scholarship brought Stockmayer to Oxford, where he undertook gas kinetics research with D. L. Chapman. Stockmayer returned to MIT for Ph.D. research and pursued his study of statistical mechanics, which he continued at Columbia. He returned to MIT in 1943 as an assistant professor of chemistry and became involved in the theory of network formation and the gelation criterion. Stockmayer increasingly directed his attention to theories of polymer solutions, light scattering and chain dynamics.

The second interview begins with Stockmayer's Guggenheim Fellowship in Strasbourg, France, his first meeting with Hermann Staudinger in Freiburg, Germany, and his subsequent return to MIT. Stockmayer then moved to Dartmouth University in 1961, where he worked primarily on copolymers in dilute solution, established the journal *Macromolecules*, and collaborated with numerous Japanese scientists. He discusses his impression of the Gordon Conferences and the polymer community since the 1940s. Stockmayer concludes with his retirement and work as a consultant for Du Pont and other companies.

INTERVIEWERS

Jeffrey L. Sturchio is Executive Director, Public Affairs, Human Health, Europe, Middle East & Africa, at Merck & Co., Inc., where he is responsible for the development, coordination, and implementation of a range of policy and communications initiatives for the region. Before assuming his current position in 1995, he was Merck's Director, Science & Technology Policy, in the Corporate Public Affairs Department from 1993 to 1994; and Associate Director, Information Resources & Publishing, from 1992 to 1993. Dr. Sturchio joined Merck & Co., Inc. as Corporate Archivist in June 1989. He received an A.B. in history from Princeton University and a Ph.D. in the history and sociology of science from the University of Pennsylvania. He was Associate Director of the Beckman Center for the History of Chemistry from 1984 to 1988, and has held teaching appointments at the New Jersey Institute of Technology, Rutgers University, and the University of Pennsylvania as well as a fellowship at the Smithsonian National Museum of American History.

Peter J. T. Morris is currently at the Department of the History of Science and Technology of the Open University, where he is Royal Society-British Academy Research Fellow. Morris was educated at Oxford University receiving his B.A., chemistry in 1978 and D.Phil., modern history in 1983. He was a Research Fellow at the Open University from 1982 to 1984. During the period 1985-1987, Peter Morris was Assistant Director for Special Projects at the Beckman Center. He was the Royal Society-British Academy Research Fellow at the Open University, Milton Keynes, between 1987 and 1991, and Edelstein International Fellow in 1991-92. He is author of the monographs, *Archives of the British Chemical Industry, 1800-1914*, *Polymer Pioneers*, and *The American Synthetic Rubber Research Program*. Morris also co-edited *Milestones in 150 Years of the Chemical Industry* and *The Development of Plastics*.

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