ROCHOW, EUGENE G.

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EUGENE G. ROCHOW

1909 Born in Newark, New Jersey, on 4 October

Education

1931 B. Chem., Cornell University
1935 Ph.D., chemistry, Cornell University

Professional Experience

1931-1932 Research Chemist, Halowax Corporation
1932-1935 Assistant Chemist, Cornell University
1935-1948 Research Chemist, General Electric Company Research Laboratory

Harvard University

1948-1951 Associate Professor
1951-1970 Professor
1970-Present Professor Emeritus

Honors

1948 Honorary M.A., Harvard University
1949 Baekeland Medal, American Chemical Society
1951 Myer Award, American Ceramic Society
1958 Mattiello Award, Federal Paint & Varnish Society
1962 Perkin Medal, Society of Chemical Industry
1964 Honor Scroll, American Institute of Chemists
1965 Frederick Stanley Kipping Award, American Chemical Society
1966 Honorary D.Sc., Carolo-Wilhelmina Universität Braunschweig
1968 Chemical Pioneers Award, American Institute of Chemistry
1970 Award for Excellence in Teaching, Manufacturing Chemists Association
1971 Inventor’s Award, General Electric Company
1973 Norris Award for Teaching of Chemistry, American Chemical Society
1983 Alfred Stock Medal, German Chemical Society
1992 Honorary Doctorate of Natural Science, Technische Universität, Dresden
ABSTRACT

Eugene G. Rochow begins this interview by talking about his early years in New Jersey and his family background in the Brandenburg region of Germany. Rochow’s interest in electricity and silicon stems from his first radio set, which he put together using silicon crystals. Sparked by his brother Theodore’s interest in chemistry, Rochow joined his brother as a chemistry assistant both in high school and at Cornell University. He worked as both lecture and laboratory assistant to Louis M. Dennis, then chair of Cornell’s chemistry department, who referred Rochow to Alfred Stock as a lecture assistant while Stock was guest professor at Cornell. Here Rochow relates some anecdotes about Alfred Stock. Although the Depression caused severe cuts in job opportunities, Rochow found employment with the Hotpoint Company, a General Electric Company subsidiary, where he conducted research on periclase. During this time, Rochow produced ethyl phenyl silicone, which Corning Glass Works had also just produced, for use as an insulator. He then produced methyl silicone. This led to patent and publication difficulties between GE and Corning Glass Works, now the Dow-Corning Corporation. During this time, Rochow discovered how to produce methyl silicone, first using magnesium, then using silicochloroform and copper. Further, he and Charles E. Reed developed a way to manufacture methyl silicone using fluid-bed catalysis. Rochow continued his research on silicone production and zinc promotor development until his transfer to Richmond, Washington, where he conducted research on nuclear fission as a source of domestic energy. When the U.S. Government requested GE to work on nuclear propulsion for naval vessels, Rochow, a Quaker, left to teach chemistry at Harvard University. Rochow closes with comments on how his Perkin Medal award brought him international recognition and expanded professional opportunities.

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.
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Family Background and Early Education

Childhood in Maplewood, New Jersey; family background in Brandenburg, Germany. Der Kinderfreund, text authored by ancestor. Childhood interest in electricity. Early use of siliccon as a crystal detector in radio sets. Influential high school teachers in chemistry and mathematics.

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Early Career


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Early Research at GE

Early work with Louis M. Navias. Otto Hahn's and Liza Meitner's work on uranium atom fission. Rochow's research on uranium hexafluoride.

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Methyl Silicone; GE/Corning Glass Works Controversy


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Later Career

Later development of the production of methyl and other silicones. Struggle with Marshall over An Introduction to the Chemistry of the Silicones. Zinc promoter development. Move to Richland, Washington, to conduct research on nuclear fission as source of domestic energy. GE's government requirement to leave GE. Chemistry professorship at Harvard University. International recognition as result of winning Perkin Medal. Guest professorship at University of Innsbruck.

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Later Career

Research Foundation fellowship. Theodore Hescher, Cornell University founder. Chemistry department and Rochow's assistantships under Louis M. Dennis. Influential professors at Cornell.

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NOTES


E. G. Rochow, “Methyl Aryl Silicones & Insulated Conductors & Other Products Utilizing the Same,” U. S. Patent 2,258,222, issued 7 October, 1941.


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