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HERMAN E. SCHROEDER

Transcript of Interviews Conducted by

Raymond C. Ferguson

in

Greenville, Delaware

on

30 December 1986 and 12 January 1987

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### HERMAN E. SCHROEDER

1915 Born in Brooklyn, New York on 6 July

# Education

1936	A.B.,	chemistry,	Harvard	University
1937	A.M.,	chemistry,	Harvard	University
1939	Ph.D.	, organic c	hemistry	Harvard University

# Professional Experience

	E. I. du Pont de Nemours & Co., Inc. Chemical Department
	-
1938-1945	Research Chemist
	Organic Chemicals Department, Jackson Laboratory
1945-1946	Research Chemist
1946-1948	Research Supervisor
1949-1950	Research Division Head
1951-1956	Assistant Laboratory Director
	Elastomer Chemicals Department
1957-1963	Assistant Director of Research
1963-1965	Director of Research
1965-1980	Director of Research and Development

1980- President, Schroeder Scientific Services, Inc.

### Honors

1936	summa cum laude, Harvard University
1936	Phi Beta Kappa
1979	General Award, International Institute of Synthetic
	Rubber Producers
1984	Goodyear Medal, American Chemical Society, Rubber
	Division

#### ABSTRACT

Herman Schroeder starts the interview by telling of his family background and growing up in Brooklyn. An early learner, Schroeder attended public and private high schools where his scientific interests were first aroused. After an early graduation he entered Harvard, where he initially planned for a career in medicine but soon changed towards chemistry, in part influenced by his tutor, John Edsall. Staying on at Harvard for graduate study in the physical aspects of organic chemistry, Herman Schroeder investigated the rates and mechanism of the closure of large rings. He discusses the choice between industrial and academic careers and the advice of the Harvard faculty. Arriving at the Du Pont Experimental Station in 1938, Schroeder outlines his initial assignments and his important wartime research on tire cord adhesives. Transferring to the Jackson Laboratories, he worked on both dyestuff synthesis and the mechanisms of dyeing synthetic fibers, as well as obtaining experience in production control. Moving to greater research responsibilities, Schroeder played an important role in the development of several polymers, which is described towards the end of the first interview. In a second interview, Ferguson asks Schroeder to comment on some of his Du Pont colleagues and on some of the academic consultants to the company. The interview concludes with some of Schroeder's retirement activities and a full account of the Louisville plant explosion.

#### INTERVIEWER

Raymond C. Ferguson obtained his degrees in chemistry from Iowa State University (B.S., M.S.) and his Ph.D. from Harvard University. He worked in research divisions of the Organic Chemicals, Elastomer Chemicals, and Central Research Departments of Du Pont, principally in molecular spectroscopy, organic structure analysis, and polymer characterization. Currently he is affiliated with CONDUX, Inc., a consulting association of ex-Du Pont professionals. 1 Childhood and Early Education

Parental background. Prejudice against German name. Public and private schools in New York. Interest in science, early graduation from high school.

5 Harvard University

Concentration on chemistry, Edsall as tutor. Courses and faculty. Graduate study in physical organic chemistry, the rate of closure of large rings. Marriage. Discusses choice of industrial over academic position and reaction of faculty.

- 17 Chemical Department of Du Pont Intermediates for polymers. Hydrocarbon chlorination, correcting ICI results. Wartime research on tire cord adhesives. Colleagues at the Experimental Station. Patents and reports. Rubbery fluoropolymers.
- 26 Jackson Laboratory Dyestuff chemistry. Problems with new pigments plant. Rates and mechanisms of dyeing, dispute with Pauling. Marketing and business strategy. Return to polymers, the polyether-urethanes, segmented copolymers. Fluoropolymers.
- 42 Elastomer Chemicals Department Terpolymers with unconjugated dienes. Hypalon. Nordel, patent protection. Viton and successors. Kalrez.
- 50 Second Interview Vamac, cost efficiency. Termination of research projects. Research direction in Elastomer Chemicals. Du Pont personalities; Charch, Carter, Elley, Holbrook. Academic consultants.

### 59 Retirement

Advising the Metropolitan Museum of Art on conservation. Chemical consulting. School board, Chester County. Professional organizations, Harvard visiting committee. Industrial safety, the Louisville explosion. Carcinogenic substances, toxicological testing.

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