Transcript of an Interview
Conducted by

James J. Bohning
at
Highland Beach, Florida
on
1 May 1986
THE BECKMAN CENTER FOR THE HISTORY OF CHEMISTRY

Oral History Program

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Dr. James J. Bohning  on 1 May 1986.

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(Date)  March 15, 1989

(Revised 24 February 1988)
ROBERT ARMSTRONG

1909 Born in Chadron, Nebraska on 27 December

Education

Massachusetts Institute of Technology
1931 S.B., chemistry,
1935 Ph.D., organic chemistry,

Professional Experience

Massachusetts Institute of Technology
1928-1935 Assistant Chemist
1935-1937 Instructor, organic chemistry
U.S. Rubber Company, Passiac, N.J.
1937-1941 Chemist
1941-1944 Group Leader
North American Rayon Corporation, Elizabethton, Tennessee
1944-1946 Research Chemist
Celanese Corporation of America
1946-1949 Group Leader
1949-1950 Technical Superintendent
1951-1952 Director, Technical Control
1952-1953 Associate Director of Research
1953-1956 Technical Director, Textile Division
1956-1966 Vice-President, Technical Director
1966-1975 Senior Vice-President, Research
ABSTRACT

Dr. Robert Armstrong describes his childhood in Nebraska and Arizona and how he managed to support himself through undergraduate and graduate studies at the Massachusetts Institute of Technology. He recollects the faculty at MIT and the support that some of his teachers gave him during his stay there. After graduate research, Armstrong moved to the U.S. Rubber Company, where he coupled investigations of rubber vulcanization with pioneering research on radical polymerization; he early recognized the value of systematic studies of copolymerization. During World War II he was persuaded to work at the North American Rayon Company and he briefly alludes to the conditions he found at their production plant. Soon after WWII, Armstrong started his career at the Celanese Corporation, which was to last until his retirement. He describes his functions as he progressed up the corporate ladder and also outlines his involvement with the establishment of the Research Triangle Institute.

INTERVIEWER

James J. Bohning holds the B.S., M.S., and Ph.D. degrees in chemistry, and has been a member of the chemistry faculty at Wilkes College since 1959. He was chair of the Chemistry Department for sixteen years, and was appointed chair of the Department of Earth and Environmental Sciences in 1988. He has been associated with the development and management of the oral history program at the Beckman Center since 1985, and was elected Chair of the Division of the History of Chemistry of the American Chemical Society for 1987.
1 Childhood and Early Education
Born in Nebraska, family moved to Arizona soon after. Father's failed attempt as a banker. Mother as teacher in small rural school. Agricultural prep school after mother's death.

3 Undergraduate Education
Enters MIT, choice of chemistry as major. Recollections of faculty. Support by part-time work. Undergraduate research and experimental work. Effect of the Depression.

7 Graduate Studies
Infrared and Raman spectroscopy of cyclopropane. Instructor at MIT.

8 U.S. Rubber Company
Key researchers in U.S. Rubber Research Laboratory. Study of rubber vulcanization and of polymerization. Initiation of copolymerization mechanisms pursued by Mayo, Walling and Lewis.

12 North American Rayon Company
Circumstances of move during WWII, conditions at plant.

14 Celanese Corporation
Establish quality control functions. Move to research laboratories at Summit, N.J. and then to Charlotte N.C. as technical director, textile division. Role in formation of Research Triangle Institute. Transfer to head office, New York and progress to Senior Vice-President, Research.

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