

THE BECKMAN CENTER FOR THE HISTORY OF CHEMISTRY

JAMES BURTON NICHOLS

Transcript of an Interview
Conducted by

Raymond C. Ferguson

in

Wilmington, Delaware

on

14 and 16 January 1986

ARNOLD AND MABEL BECKMAN CENTER FOR THE HISTORY OF CHEMISTRY

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J. Burton Nichols

(Date) _____

J. Burton Nichols

JAMES BURTON NICHOLS

1902 Born in Danbury, Connecticut on 5 February

Education

1923 B.S., chemistry, Cornell University
1924 M.S., chemistry, University of Wisconsin
1927 Ph.D., physical chemistry, University of Wisconsin

Professional Experience

E. I. du Pont de Nemours & Company, Inc.
1927-1942 Research chemist
1942-1953 Head, physics section
1953-1966 Supervisor, physics and analytical division

ABSTRACT

Born in Danbury, Connecticut, Burton Nichols was only a few months old when his father died and his mother then found employment in the local industry so as to support Nichols and his sister. Encouraged by the high school superintendent, Nichols won scholarships to help him through his undergraduate studies of chemistry at Cornell, where he completed a senior research project with Wilder D. Bancroft. At Bancroft's urging, Burton Nichols met Svedberg, then on his way to Wisconsin on sabbatical leave, and followed him to Madison. His introduction to sedimentation techniques was by construction of a pioneer optical centrifuge and its use in pigment characterization. Fellowships enabled the newly-married Nichols and his bride to go to Uppsala where he contributed to the early development of the ultracentrifuge. Recollections of this period are followed by an account of his arrival at the Du Pont Experimental Station to work in Kraemer's group, starting with the application of ultracentrifugal techniques to industrial problems. During his long career at Du Pont, Nichols was involved in the evolution of new instruments and polymer characterization. The interview concludes with Nichols recalling colleagues, Du Pont management and organization as well as his professional society activities.

INTERVIEWER

Raymond C. Ferguson obtained his degrees in chemistry from Iowa State University (B.S., M.S.) and Harvard University (Ph.D.). 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.

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