

# GENEALOGY DATABASE ENTRY

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Williams, John Warren

1898 - 1988

DEGREE: PhD

DATE: 1925

PLACE: Wisconsin

TEACHER/RESEARCH ADVISOR: Daniels

investigated the dipole moments of polar molecules from precise measurements of the dielectric constants of their dilute solutions in nonpolar solvents, and showed that the calculated dipole moment was related to molecular structure; formulated the theory of the frequency dependence of the dielectric constant of polar liquids; used ultracentrifuges to measure molecular weights; developed the theory and applications of ultracentrifuge technology to protein chemistry and immunology; worked on blood plasma fractionation to improve the yield of  $\gamma$ -globulins; studied the partial digestion of  $\gamma$ -globulins by various proteolytic enzymes to localize the antibody activity in specific fragments of the protein.

1. *Langmuir* **1989**, 5, 2-3.
2. *McGraw-Hill Modern Men of Science*; McGraw-Hill: 1966; vol. 2, p606-608.