

GENEALOGY DATABASE ENTRY

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Swain, Charles Gardner

1917 - 1988

DEGREE: PhD

DATE: 1944

PLACE: Harvard

TEACHER/RESEARCH ADVISOR: Bartlett, P. D.

studied the scale of nucleophilic reactivities, field and resonance components of substituent effects, anion- and cation-solvation components of solvent effects, and the effect of structural changes in reactants on the structure of transition states; demonstrated one of the first polyfunctional enzyme models; found strong evidence for phenyl cation as a true intermediate in many diazonium reactions; developed an equation relating deuterium and tritium isotope effects; calculated all thermodynamic differences between light and heavy water from spectral frequencies; discovered a reliable method for estimating the uncertainty of any computer-calculated quantity; developed a valid alternative to replace "factor analyses".

1. Research advisor confirmed by Harvard Archives (3Sept93).
2. Swain, C. G. *Curriculum Vitae*; MIT Museum: 1986; p1-2.