

GENEALOGY DATABASE ENTRY

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Polányi, Mihály (Michael)

1891 - 1976

DEGREE: PhD

DATE: 1917

PLACE: Budapest

TEACHER/RESEARCH ADVISOR: Bredig

investigated vegetable fibers -- was the first to apply X-ray diffraction to the structural investigations of fibers; improved the rotating crystal method of X-ray analysis; established the dislocation theory of crystal lattice imperfections; studied reaction kinetics and established the theory of bimolecular activation energy (with Eyring) and the generalized theory of absolute rates of reaction (with M. Evans); investigated ionic reactions in solutions, bond dissociation energies, and the mechanism of polymerization.

FOOTNOTE: Polányi studied with Bredig at the Technische Hochschule in Karlsruhe in 1912-1914, when he left to serve as an army medical officer. While serving, he wrote several scientific papers, one of which became his doctoral dissertation submitted to the University of Budapest.

1. *Biog. Mem. Fell. Roy. Soc.* **1977**, 23, 413-448.
2. *Dictionary of Scientific Biography*; Charles Scribner's Sons: 1970-1990; vol. 18, p718-719.
3. *Nature (London)* **1976**, 261(6May), 83-84.