

GENEALOGY DATABASE ENTRY

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Herzfeld, Karl Ferdinand

1892 - 1978

DEGREE: PhD (physics)

DATE: 1914

PLACE: Vienna

TEACHER/RESEARCH ADVISOR: Hasenöhrl

independent discoverer of the steady-state assumption to calculate rate laws; investigated the mechanism of the absorption of sound in gases, the theory of the binding of atoms in crystal lattices, the kinetic theory of gases, the theory of absorption on surfaces, and the electronic structure of benzene and dye molecules; instrumental in introducing the techniques of statistical mechanics to physical chemists in the years between 1920-1935; derived the rate constant for a first order reaction; first to calculate a relaxation equation for vibrational energy transfer; pioneer in calculating the kinetics of radical chain mechanisms.

1. Personal communication, Karen Johnson (20Sept93).
2. *J. Stat. Phys.* **1990**, 59, 1547-1572.
3. *Physics Today* **1979**, 32(Jan), 99.