GENEALOGY DATABASE ENTRY

Scherrer, Paul Hermann 1890 - 1969

DEGREE: PhD DATE: 1916 PLACE: Göttingen
TEACHER/RESEARCH ADVISOR: Debye

invented the Debye-Scherrer X-ray technique for studying the structure of polycrystalline materials and used it to study lithium fluoride powder, finding a series of sharp lines due to diffraction from the randomly oriented microcrystals; first to obtain crystallographic evidence that simple salts are composed of charged species in the solid state; first to observe the fibrous structure of cellulose and other organic compounds; contributed greatly to our understanding of the structures of organic colloids; with Debye, showed that X-ray diffraction can yield information about the molecular structure of liquids; determined the structure of various complex salts and proved they were in accordance with the ideas of Werner; studied ferroelectrics, magnetism, piezoelectricity, and other aspects of solid-state physics.

1. *Dictionary of Scientific Biography*; Charles Scribner's Sons: 1970-1990; vol. 18, p784-785.
2. *Physics Today* **1970**, *23(1)*, 129-133.
3. *Helv. Phys. Acta* **1970**, *43*, 5-8.
4. Personal communication with H. Frauenfelder (**28Sep95**) and K. Alder (**5Oct95**) confirmed research advisor.