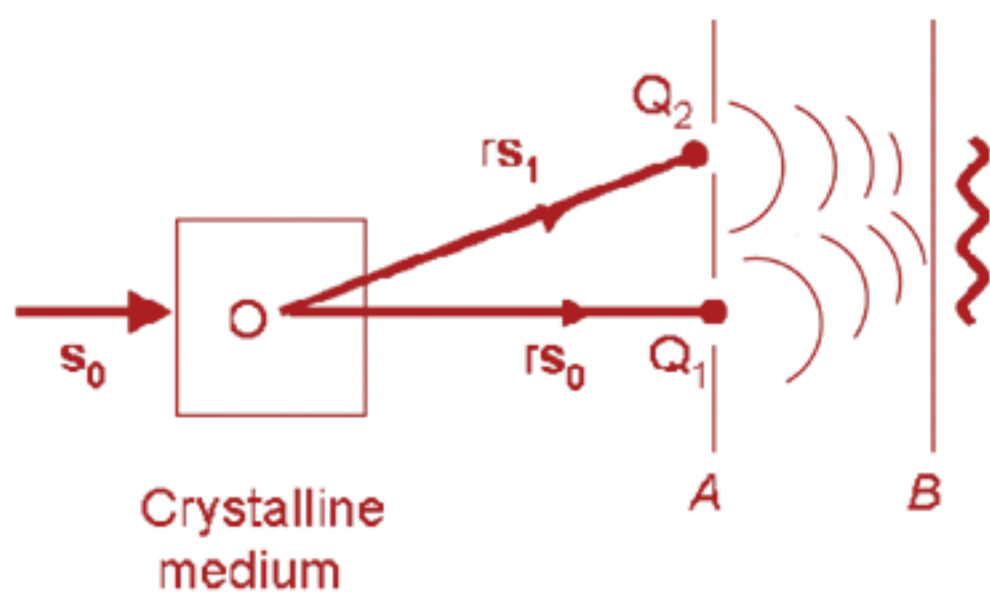
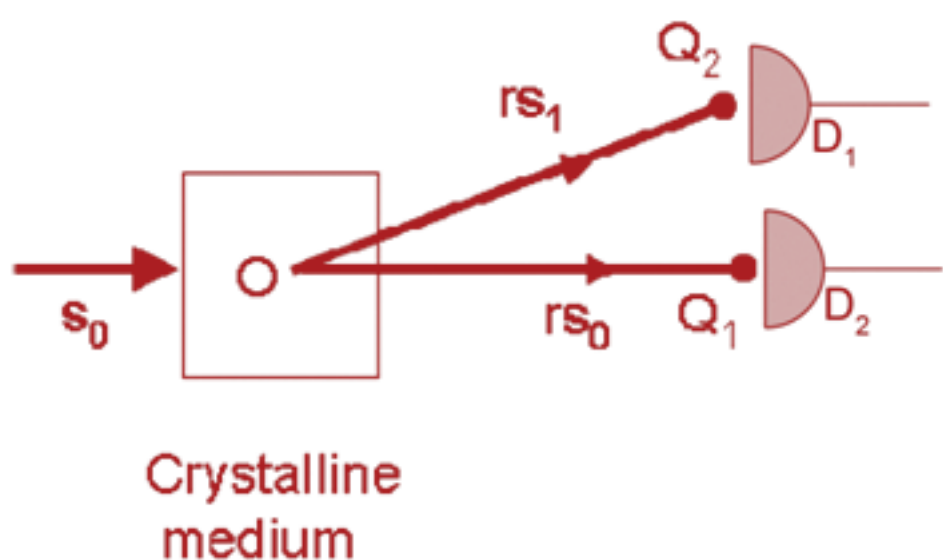


Emil Wolf

“History and Solution of the Phase Problem in the

Theory of Structure Determination of Crystals from

X-ray Diffraction Experiments”



Since the pioneering work of Max von Laue on interference and diffraction of x-rays, carried out almost 100 years ago, numerous attempts have been made to determine structures of crystalline media from x-ray diffraction experiments. The usefulness of all of them has been limited by the inability of measuring phases of the diffracted beams. In this talk,¹ the most important research carried out in this field will be reviewed and a recently obtained solution of the phase problem will be presented.

Emil Wolf is the Wilson Professor of Optical Physics and also Professor of Optics at the University of Rochester. His main research is in physical optics. He has published more than 400 papers and is the co-author, with Max Born, of a well-known book, *Principles of Optics*, now in its seventh edition, and with Leonard Mandel, of *Optical Coherence and Quantum Optics*. He is also the author of *Introduction to the Theory of Coherence and Polarization of Light*. He is the editor of *Progress in Optics*, an ongoing series of volumes of review articles on optics and related subjects. Fifty-four volumes have been published to date, all under his editorship. Professor Wolf is the recipient of numerous awards for his scientific contributions and is an honorary member of the Optical Societies of America (of which he was President in 1978), India, and Australia. He is the recipient of seven honorary degrees from universities around the world.

Wednesday, June 2, 2010 | 3:00 p.m.

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