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crystallographers

Deane K. Smith (1930–2001)

Deane K. Smith passed away on 7 September 2001 at his home in State College, Pennsylvania. Deane was born on 8 November 1930, in Berkeley, California. He was a son of the late Deane K. Sr and Anna Virginia Long Smith. In July, 1953, he married Patricia Ann Lawrence, who survives him at home. In addition to his wife, Deane is survived by three daughters, Paula Lynn Smith of Seattle, Jeanette D. Metcalf of Chesterland, Ohio, and Sharon R. Stanford of Colbran, Colorado; two sons, Kingsley L. of Madison, Wisconsin, and Dana E. of State College; and nine grandchildren.

In 1952, Deane graduated from the California Institute of Technology with a bachelor's degree in geology, and in 1956 he graduated from the University of Minnesota with a doctorate in geology. From 1956 to 1960, he was a research associate of the Portland Cement Association Fellowship at the National Bureau of Standards in Washington, DC. During the 1960s, he worked as a chemist and diffractionist in the Inorganic Materials Division of the Lawrence Radiation Laboratory in California and later as assistant section leader of the laboratory's Properties of Materials section. In 1968, he joined Penn State University's Department of Geosciences as an associate professor and became professor in 1971.

Deane's long career impacted most areas of geology and powder diffraction analysis. He performed some early high-temperature experiments while at NBS as well as impacting the understanding of one of the most complex phase assemblages in materials science: Portland Cement. At Lawrence Livermore Laboratories Deane developed the first version of his powder pattern calculating program which over time has become the accepted standard for such computations. The first published major work using this early *POWD* program was not just a few example patterns but instead a full book-length compendium of silicate mineral patterns, written with Iris Borg and published by the Geological Society of America. Many people collaborated with Deane on the development of *POWD* over the years, with his son Kingsley being one of the most recent contributors to the development of the MDI PC version. Deane continued the development of quantitative analysis methods with the technique for whole-pattern quantitative analysis developed initially for clays. Deane was the prime driving force of this development. The foundations in calculation of reference powder patterns and in whole-pattern analysis proved to be a major lighthouse towards the development of modern analytical methods of X-ray analysis. In addition to these widely used methods, Deane published the well known book on *Specimen Preparation* with Ron Jenkins and Vic Buhrke, as well as a recent book with Frank Chung. Deane's contributions to the literature and our craft will live long and affect generations to come. A newly discovered mineral, Deanesmithite, was named after him.

Deane was a long-time member of the ICDD, Distinguished Fellow (1995), 16-year board member, and Chairman of the Board from 1978 to 1982 and 1986 to 1990. Throughout this time Deane was a major contributor to the Minerals Subcommittee and participated in extensive editing of the new mineral patterns of the Powder Diffraction File. Deane co-founded and became the first Editor-in-Chief for the journal *Powder Diffraction*, a position that he held for 13 years (1986–1999).

Others will come forward to take Deane's place. But they can never replace him. Deane was a unique combination of teacher, researcher, organizer, director, family man and dog lover. He was a good friend. We will miss him.

Camden R. Hubbard

Ron Jenkins

Robert L. Snyder