



Joseph A. Pask

JOSEPH A. PASK

1913–2003

Elected in 1975

“For contributions to the technical literature and to the development of modern science and technology of non-metallic materials.”

BY DOUGLAS W. FUERSTENAU

JOSEPH ADAM PASK, emeritus professor of ceramic engineering at the University of California, Berkeley, died peacefully in his sleep on June 14, 2003, at the Brentwood residence of a home health care nurse. He had been moved there from his home in Berkeley a week earlier after his wife of 65 years, Margaret, suffered a heart attack.

Pask was born February 14, 1913, in Chicago to Adam and Catherine Poskoczem. After changing his name to Pask at the suggestion of a high school teacher, he entered the University of Illinois, where he received a B.S. degree in ceramic engineering in 1934. He obtained a master's degree in 1935 from the University of Washington and completed a Ph.D. in ceramic engineering at the University of Illinois in 1941. From 1941 to 1943 he served as an assistant professor in ceramic engineering at the University of Washington, where he broadened his research experience through a concurrent appointment as associate engineer in the Northwest Experiment Station of the U.S. Bureau of Mines. There he furthered his interest in clays and their properties as a ceramic raw material. Subsequently, he obtained valuable industrial experience and a reputation for research achievement as a research ceramist and research section engineer in the Lamp Division of Westinghouse Electric Corporation, in Bloomfield, New Jersey, which led

to a lifelong interest in glass-metal seals. In 1948 he accepted an appointment as associate professor of ceramic engineering at the University of California at Berkeley, with the daunting assignment of initiating a graduate program in the field of ceramic engineering, a task he carried out with distinction.

By 1954, Pask had developed an impressive teaching and research program and had been promoted to professor. He was then authorized to recruit two junior faculty members. Within a few years the program, under his leadership, had grown to have an enrollment of more than 20 graduate students and postdoctoral researchers, and an upper-division major in ceramic engineering was instituted. The ceramics programs, which continued under Pask's benevolent and effective leadership until the time of his retirement in 1980, were remarkably successful. More than 40 graduate students and postgraduate researchers from the program rose to tenured positions at major universities throughout the world. Pask directed the research of 39 master's and 31 Ph.D. students. With only 3 faculty members, ceramic science and engineering at Berkeley attained a level of professional regard comparable to that of elite graduate programs that were staffed by more than 20 faculty.

During his years at Berkeley, Joe Pask was considered one of the leading professionals in the United States, and worldwide, in ceramic science and engineering, with a definite orientation toward ceramic processing. Over the years he was a strong proponent of the need for ceramic processing research in order to produce more reliable ceramic products. He helped organize and served on numerous National Research Council committees and panels on ceramic processing, particularly emphasizing the need for research directed at producing more reliable ceramic bodies. Early on, with several of his graduate students, he made significant contributions to clay mineralogy and the behavior of clay suspensions with regard to ceramics. He had a long-term interest in phenomena involved in producing glass-metal bonds, which started from his years in research at Westinghouse. He is well known for his many studies on mullite ceramics (a dense alumina-silica compound

used in engines, turbines, and energy conversion systems) and was one of the world's leading experts on this material. With many of his graduate students, he investigated interfacial phenomena involved in ceramic processing systems. Over his career he made more than 200 contributions to archival journals and conference proceedings and authored or edited 8 books in the field, including the important Ceramic Microstructures Conference series proceedings, which served as a benchmark of progress in ceramics and identified new frontiers for research. The Ceramic Microstructure Conferences were held in Berkeley at the University of California. The various proceedings were published by a number of different publishers.

Pask served his department (first known as the Department of Mineral Technology, followed by a name change to the Department of Materials Science and Engineering in 1969) one year as vice chairman, followed by three years as chairman from 1958 to 1961. It is noteworthy that he filled that often vexing role with unruffled good humor while simultaneously maintaining his momentum in research and serving as associate dean of engineering in charge of the graduate office, a responsibility he discharged from 1969 until his nominal retirement in 1980. After that date he continued to arrive at his office every normal workday, in term and out, to pursue research and provide advice solicited by students and a stream of visiting professionals. He was well into his 80s before his defective knees forced him to abandon his routine of walking his downhill mile in the morning, to be picked up by his wife in the evening.

In addition to election to the National Academy of Engineering, Joe Pask was an honorary member of the Ceramic Society of Japan, a charter member of the International Academy of Ceramics, and a fellow of the American Association for the Advancement of Science. The awards that he probably treasured most were the Berkeley Citation awarded at his retirement and the Distinguished Life Membership and the Jeppson Award of the American Ceramic Society. The Distinguished Life Membership is the highest honor of the American Ceramic Society and recognizes lifelong achievement and

contributions to the society. The Jeppson Award recognizes distinguished scientific, technical, or engineering achievements in ceramics. In addition to the American Ceramic Society, he was exceptionally active in other professional societies and on National Research Council committees and panels related to ceramic materials. He was not only a member of the ceramic society of several different foreign countries but also a member of the American Mineralogical Society, the Clay Minerals Society, and the American Institute of Mining, Metallurgical, and Petroleum Engineers, among others.

The first stop for Japanese junior and senior scientists en route to an American Ceramic Society meeting was, for many years, Berkeley, where Joe and his wife Margaret welcomed them into their home. There the fog always seemed to lift in time to provide a spectacular view of the bay, San Francisco, and the Golden Gate Bridge. In this way, the Pasks played a significant role in fostering early collaboration between Japanese and American ceramic researchers. Joe and Margaret were devoted members and seemingly tireless servants of the Berkeley campus and the society.

Margaret Pask died in February 2005. She and Joe are survived by their son Tom, daughter Kathryn Pask Hruby, three grandchildren, and four great-grandchildren.

