

# MEMORIAL RESOLUTION KONRAD BATES KRAUSKOPF

(1910-2003)

On May 4, 2003 Konrad Bates Krauskopf passed away peacefully in his Stanford, CA home. Konnie, as friends knew him, had been a member of the Stanford faculty since 1939, after 1976 as Professor Emeritus.

Konnie was born in Madison, WI on November 30, 1910, son of a chemistry professor at the University of Wisconsin. He grew up there and received his AB degree in chemistry at the University of Wisconsin in 1931. Coming west, he attended the University of California, Berkeley for doctoral study in chemistry under the direction of Professor Gerhard K. Rollefson. Konnie received his Ph. D. degree in 1934 with a dissertation entitled “Photochemical Studies: I. The role of Oxygen as an Inhibitor for the Photosynthesis of Hydrogen Chloride. II. A Method for Deriving Reaction Mechanisms from Empirical Rate Laws for Chain Reactions. III. The Photochemical Reaction between Chlorine and Formaldehyde.” After a one-year instructorship at Berkeley, Konnie came to Stanford in 1935, and decided to matriculate into the Ph.D. program in geology. For his research, Konnie worked with Professor Aaron C. Waters, and received a second Ph. D. degree in 1939 for a dissertation entitled “Geology of the Northwest Quarter of the Osoyoos Quadrangle, Washington.” He admitted that continuing to do bench chemistry was far less interesting to him than geologic fieldwork. Concurrently he served as instructor of a Stanford undergraduate physical science course that combined his expertise in chemistry with his newfound interest in geology.

His professional life was filled with extraordinary achievements in both geology and geochemistry. He made numerous original contributions in all aspects of academic performance that we deem critically important—research, instruction, and public/professional service.

In addition to his enormously productive professional life, Konnie was a devoted family man. His lifelong companion for more than 60 years, Kathryn McCune Krauskopf, known to all her friends as Kay, died in 2001. She and their four children often traveled the world with him during his geologic studies. The children are Karen Hyde of Belvedere, California; Frances Conley, Stanford Professor of Neurosurgery, Emerita, of Sea Ranch, California; Karl Krauskopf of Ashland, Oregon; and Marion Foerster, of Oceanside, California.

Conciseness and simplicity of expression characterized Konnie's teaching style. This resulted in remarkable clarity for subjects generally considered as especially challenging. Lectures were polished and methodically delivered—he chose his words very carefully, and forswore lecture notes. In guiding the research of advanced students, he cut them considerable slack, but was ready to provide incisive guidance when appropriate. He was a teacher's teacher.

He literally wrote the book on application of the principles of physics and chemistry to the Earth, having provided geoscientists with discipline-defining texts in geochemistry and physical geology over a span of five decades. These pioneering works focussed on and illuminated the fundamental chemical and physical foundations of the Earth sciences. Acclaimed books include: The Third Planet; Introduction to Geochemistry; Fundamentals of Physical Science; The Physical Universe; Radioactive Waste Disposal and Geology; and Introduction to Physics and Chemistry. Most have run through several (up to ten) editions. Special research emphases included seminal studies of aqueous solution-metal complex equilibria as well as thermodynamic applications to solid-melt-fluid partitioning, published at a time when most Earth scientists were mapping quadrangles. Konnie did that too, having published seven geologic quadrangle maps. Field associates were always impressed by his seemingly endless supply of limericks—one to fit any occasion.

He was a member of the military geology division of the U. S. Army during WW II. In 1947 he was appointed chief of the G-2 geographic section in Tokyo, receiving a citation for meritorious civilian service. Konnie served for more than a decade as a member, then chair, of the U. S. National Research Council Board on Radioactive Waste Management, and was responsible for an outstanding, problem defining National Academy report.

Konnie received many honors during his long career. He was the recipient of Fulbright, Guggenheim and NSF fellowships for research study abroad. He was elected to membership in the National Academy of Sciences, and the American Philosophical Society. He served as president of the American Geological Institute in 1964, received its Ian Campbell Medal in 1984, and its Legendary Geoscientist Award in 2000. In 1961 he was awarded the Arthur L. Day Medal of the Geological Society of America, and was elected GSA president in 1967. Konnie served as president of the Geochemical Society in 1970, and received its V. M. Goldschmidt Medal in 1982. These medals and awards are the highest honors given by these three professional societies. He was also honored with the Mineralogical Society of America Distinguished Public Service Award in 1994.

**Konrad Krauskopf Memorial Resolution—continued...**

Geochemistry has come a long way, thanks to intellectual leaders such as Konnie. Perhaps no other geochemist so expertly and faithfully served the Earth science profession in such far-ranging ways, being enormously impactful in all of them, as geologist, geochemist, and science/technology advisor to the Nation. Konrad Bates Krauskopf was a scientific icon. His insightful scientific contributions and keen wit will be greatly missed.

**Committee:**

Dennis Bird  
Gordon Brown  
Gary Ernst  
George Thompson