

Howard Krouse
1935-2010



With the passing of Roy Krouse, 75, professor emeritus in the Department of Physics and Astronomy, we have lost not only an excellent scientist, but also a tremendous colleague, an exceptional mentor and a very dear friend. His warm and deeply inquisitive nature, was shared in the classroom, in university hallways, and at numerous conferences around the globe. Krouse added insight and liveliness to events wherever he was; his generosity of spirit, inquiring mind and collegial warmth will be sorely missed. He died on Tues., Mar. 2, after a short, courageous battle with cancer.

Krouse was an outstandingly patient and determined educator who transmitted his encouragement and sense of wonder about the world to students. He supervised numerous graduate students and co-supervised and participated on the committees of hundreds of students over the years. The Stable Isotope Laboratory he founded is an international entity, regularly visited by well-known scientists from around the globe. Krouse has consistently offered analyses to students and colleagues and the scientific benefits have been enormous. A large number of former students now working in industry, government and universities developed a comprehensive knowledge of isotope systematics and the ability to apply isotope data to geological and environmental problems because of Krouse's generosity with his time and his analytical facilities.

Throughout his outstanding career as scientist and educator, Krouse was always able to carve out some time for his favorite hobbies. This included spending quality time with his loving wife Irene, sons Donald and Ian, daughter in law Kendall (Donald), and grandchildren James and Edward. Over 50 years, he had acquired an extensive collection of model trains from around the world. On a regular basis, Krouse also played the guitar and fiddle with the Prairie Mountain Fiddlers of Calgary at Stampede events, pancake breakfasts and various other occasions. He and his wife Irene have composed songs in traditional country style, some of which are featured on his CD, "Calgary Country."

Using and developing specialized analytical tools, complemented by home-made and commercial mass spectrometers, Krouse made significant contributions to the application of stable isotope techniques in solving environmental and geological problems. He is a world-renowned pioneer in the application of sulfur isotopes in environmental studies. The unique situation in Alberta, with its isotopically distinct sulfur emissions from sour gas processing plants, not only allowed him to trace the fate of these emissions in the environment, but also to study many fundamental physical, chemical, and biological processes in the sulfur cycle. As a consequence he was invited to serve on a UNEP/SCOPE committee, which addressed global cycling of sulfur. One of his tasks was co-editing and contributing to a definitive book on distinguishing between natural and anthropogenic sulfur locally, regionally, and globally. Krouse received numerous honors and awards throughout his scientific career. He was an elected fellow of the Royal Society of Canada (since 1994), the Chemical Institute of Canada (since 1990), and the Arctic Institute of North America (since 1989). In 1999, he was co-recipient of the Miroslaw Romanowski Medal of the Royal Society of Canada for significant contributions of

scientific aspects of environmental problems. In 2001, Krouse received the CAP medal for outstanding achievement in Industrial and Applied Physics from the Canadian Association of Physicists (CAP).

Krouse received his BSc (Honours) in physics and chemistry in 1956, and a PhD in physics in 1960 from McMaster University in Ontario, Canada. He completed his PhD thesis on selenium isotopes under the direction of Harry G. Thode. In 1960, Krouse joined the University of Alberta in Edmonton as a faculty member in the Department of Physics. There, he established an extensive multidisciplinary stable isotope research program, the second in Canada. In 1971, he moved to the University of Calgary as professor and head of the Department of Physics and Astronomy, where he established another internationally recognized stable isotope laboratory and conducted pioneering research devoted to the application of isotope techniques to numerous different disciplines throughout his scientific career. In 1997, he was awarded the honorary title of professor emeritus. At the same time, the University of Calgary appointed him to the position of faculty professor, a designation that recognizes the expertise and continuing high caliber of research being done by “retired” professors.

*Credits to the Faculty of Science
University of Calgary*