



## OBITUARY

Loren G. Hepler

(26 August 1928 – 8 June 1996)

Loren G Hepler died in Edmonton, Alberta, Canada during a by-pass heart surgery. He leaves behind his wife of the last two years, Leslie, and four children, Bill, Jim, Charley, and Rachel of his first wife Olivia.

Loren's scientific career began at the University of Kansas where he completed a B.S. degree in 1950. He received his Ph.D. three years later from the University of California at Berkeley, followed by a one year post-doctoral position at the University of Minnesota as a DuPont fellow. He joined the faculty of the University of Virginia in 1954, later moved to the Carnegie Institute of Technology, and then to the position of Department Chair at the University of Louisville. In 1970, Loren moved to the University of Lethbridge in Alberta and shortly thereafter became a Canadian citizen. His last move was to the University of Alberta in Edmonton.

Loren did research on a wide range of subjects, but always from a base in thermodynamics. Thermodynamic principles were the standard to judge the quality of measurements, theories, and predictive correlations. An example was his demonstration in a series of papers published in the late 1960s and early 1970s that the Hammett equation, an empirical relation widely used to predict the effects of a substituent on both thermodynamic and kinetic properties of organic compounds, was a consequence of substituent effects on the enthalpy and entropy. Since then, several such relationships, now known as linear free-energy relations, have been recognized. However, Loren was the first to recognize the understanding to be gained from discovering the relationships between the

thermodynamics and empirical relations derived from common experience.

Loren made significant contributions to the determination of standard values for thermodynamic parameters for several elements, compounds, and ions, and to methods for obtaining such values. He also contributed to the understanding of complex natural systems such as bitumen, oil sand, and clays through his work for the Alberta Oil Sands Technology and Research Authority.

In addition to publishing about 250 articles and book chapters, Loren also published a beginner's chemistry textbook. He was a member of the editorial boards of the Canadian Journal of Chemistry, the Journal of Chemical Thermodynamics, the Journal of Solution Chemistry, and Thermochimica Acta. Along with teaching numerous undergraduates, during his career Loren served as mentor and host to about 150 graduate students, post-doctoral students, and visiting scientists.

In his personal life, Loren was a devoted husband and father, advocate of peace, and fisherman. Many of his students and visitors fondly recall spending long days sport fishing with Loren. His dedication to education and world peace are memorialized by the Loren Hepler Memorial Scholarship Fund at the University of Lethbridge and his participation in Project Ploughshares at St. Anthony's Church in Edmonton.

Thank you, Loren.

Lee D. Hansen