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Preface to the Donald W. Setser Festschrift

Professor Donald W. Setser officially retired from his position as Distinguished Professor of Chemistry at Kansas State in the spring of 2000, having sustained a thriving research program at KSU for over 37 years. This special issue of *The Journal of Physical Chemistry A* has been compiled to honor Professor Setser for the many contributions he has made in the field of reaction dynamics and to recognize the impact he has made through the mentoring of a generation of graduate students and postdoctoral fellows.

As an Assistant Professor at KSU, Don began by studying the energy transfer and reaction dynamics of metastable species. His pioneering work on rare gas metastables led to the discovery of rare gas-halogen excimers and the development of excimer lasers (for which he received the Rank Foundation Prize (1992)). Popular accounts of this achievement recognize the importance of the excimer laser as a tool for surgery and photolithography. However, as the readers of this Journal are well aware, the field of physical chemistry has also greatly benefited from the development of these pulsed ultraviolet light sources.

Basic science issues, rather than technical goals, motivated Don's studies of rare gas-halogen excimers. The success of the laser systems did not distract Don, and he continued to pursue the most fundamental questions in his research. The incredible productivity of Don's career is a testament to the passion and dedication that he brought to his work. Don's research group has made significant contributions to many important topics in physical chemistry: diatomic and polyatomic spectroscopy; electronic, vibrational, and rotational relaxation and energy transfer; and fundamental reaction kinetics and dynamics related to combustion, the atmosphere, and chemical laser systems. Meticulous care and attention to detail characterize the research. This is work that will stand the test of time.

As an instructor, Don was known to be a very careful and well-prepared lecturer and a hard taskmaster. His insistence on excellence was often intimidating but never unappreciated or unproductive. Not surprisingly, students and post-docs trained in his laboratory are making important scientific contributions in dozens of university, governmental, and industrial laboratories around the globe.

In recognition of his achievements Don received the following awards: Ramsay Memorial Fellow (England) 1962–63, Alfred P. Sloan Fellow 1967–68, KSU Distinguished Faculty Award 1980, American Chemical Society Midwest Award 1981, Petefish Award, University of Kansas 1984, Fellow of American Physical Society, Frontiers in Chemical Research Lectures at Texas A&M, 1988, Professorship at Joseph Fourier University sponsored by City of Grenoble (1992/93), Rank Foundation Prize for Electrooptics 1992, Segebrecht Teaching Award, Kansas State University 1995, and H. H. King Lecture, Kansas State University, 1999.

It is particularly fitting that *The Journal of Physical Chemistry* is publishing this tribute, as Don served on the editorial board for many years and was the associate editor from 1982 to 1985. Don also devoted time to the ACS, serving as Vice Chairman (1977), Chairman-Elect (1978), and Chairman (1979) of the Physical Division. He was also a member of the Publications Committee from 1987 to 1994.

Don's retirement from KSU does not, of course, mark the end of his involvement in science. He continues work with collaborators, and we look forward to further insights and discoveries from these endeavors.

Michael C. Heaven
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