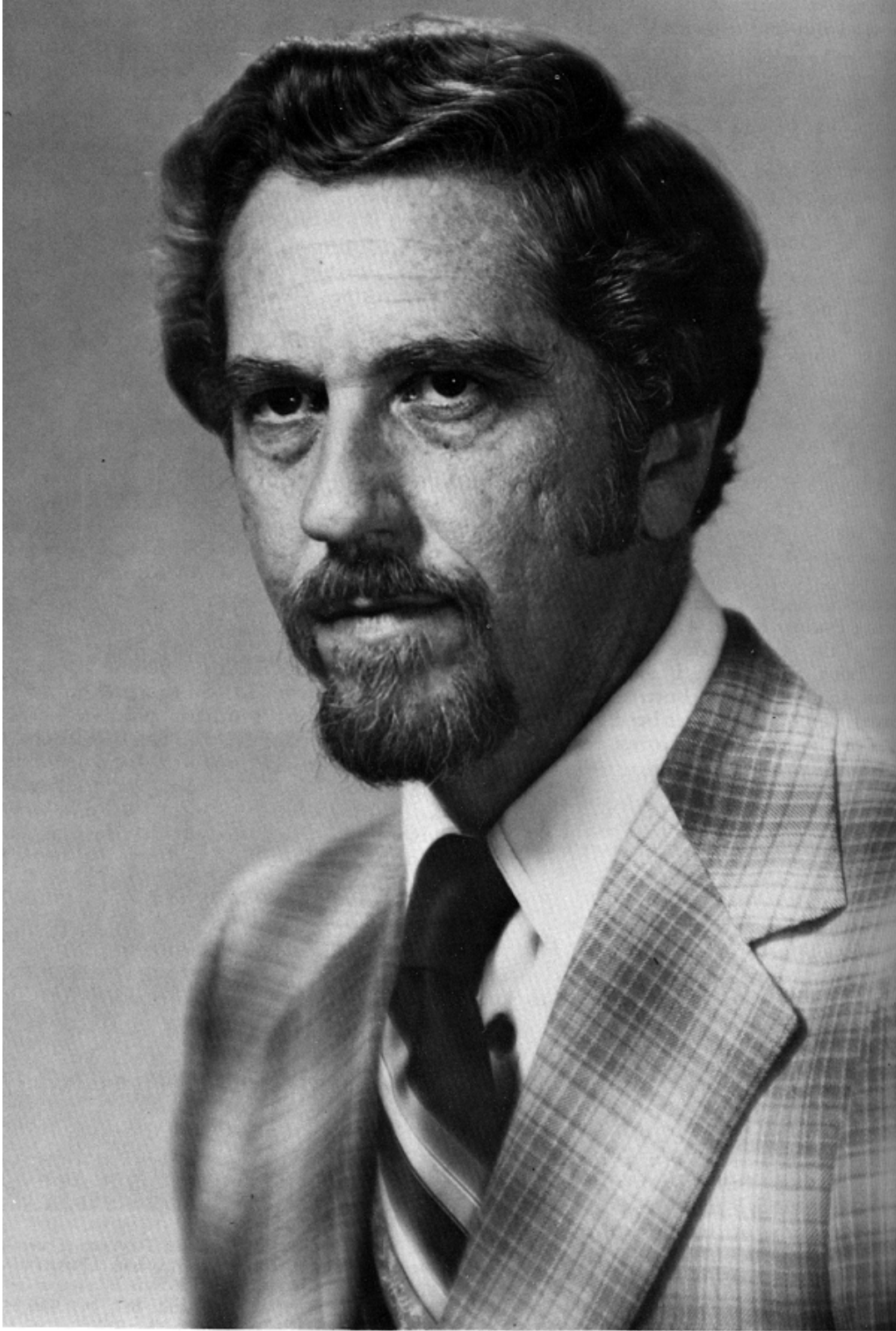


**DR. LIONEL M. RAFF**



**DR. LIONEL M. RAFF**  
**AWARD OF MERIT RECIPIENT**  
**FOR 1979**

On November 9, 1979, Dr. Lionel M. Raff received the Award of Merit of the Oklahoma Academy of Science in recognition of his contributions to the knowledge and fundamental theories of rates, mechanisms, and dynamics in gas-phase collision processes. These contributions have appeared in 56 journal articles and two book chapters in a series dealing with modern methods of theoretical chemistry.

Dr. Raff received his B.S. and M.S. degrees from the University of Oklahoma in 1956 and 1957, respectively. At the University of Illinois, Champaign-Urbana, he conducted pioneering research in the field of electron-impact spectroscopy in the laboratories of Professor Aron Kuppermann and obtained the doctorate in 1962. A National Science Foundation Postdoctoral Fellowship followed his Ph.D. During this postdoctoral research with Professor Martin Karplus at Columbia University, Dr. Raff entered the field of theoretical chemical physics. In September 1964, he joined the faculty in the chemistry department at Oklahoma State University. Promotion to Professor of Chemistry followed in 1971, and in 1978 he was appointed Regents Professor of Chemistry.

The research conducted by Dr. Raff and his students during the past 16 years has established the fundamental basis for the understanding and prediction of the mechanistic details and rates for reaction processes between specific quantum states. Such research has laid the foundation for the area of research now generally termed "state-to-state" chemistry.

In more specific terms, the research has generated over \$400,000 in external federal funds granted to Oklahoma State University. The excellence of the contributions has led directly to invited lectureships before national meetings of the American Chemical Society and the American Physical Society, 24 universities in this country, Scotland, and West Germany, two national research laboratories, and two international scientific Gordon Conferences. It has led to membership on the National Executive Committee of the Physical Division of the American Chemical Society, to election as an Outstanding Educator of America, and to appointment as Associate Editor of the Journal of Chemical Physics. In March 1979, Dr. Raff received the Oklahoma Chemist of the Year Award from the four sections of the American Chemical Society in Oklahoma and north Texas.