



## IN MEMORIAM

David H. Volman  
Professor of Chemistry, Emeritus  
UC Davis  
1916 – 2007

David H. Volman, professor emeritus, chemistry, was born in 1916 in Los Angeles California. He received his BS and MS degrees in chemistry from UCLA in 1937 and 1938 and his Ph.D. from Stanford University in 1940. In 1940 he joined UC Davis as an instructor and junior chemist but left during World War II to work as research chemist for the U.S. Office of Scientific Research and Development (US- OSRD). In 1946 Volman returned with his new wife, Ruth Jackson, who he had met at Northwestern University during the war to UC Davis as an assistant professor in the Department of Chemistry. He became a full professor in 1956. His academic honors included a Guggenheim Foundation Fellowship, a research fellowship at Harvard University, and a visiting research professorship at the University of Washington. He was a founding member of Sigma Xi chapters at Stanford University in 1939 and UC Davis in 1947. He retained his membership for life.

In 1986, at age 70, he retired due to the mandatory retirement policy, but his distinguished research and service career was not over. From 1986 to 1999 he edited the definitive series in photochemistry “Advances of Photochemistry” and until he moved to Washington, D.C. in July 2005, he was in his office daily and eager to discuss with all comers any and all subjects. His discussions with faculty, postdocs and graduate students ultimately led to over one hundred and eleven publications in eight decades.

When UC Davis became a general campus of UC, Volman, as a senior member of the faculty, played a major role in the development of the divisional senate. He chaired the senate in 1971-1972 during the student unrest over the Hanoi bombing and managed to obtain the faculty’s agreement to continue classes, feeling this would be best for the university. This illustrates how he could address complex issues because a year earlier, he had presented a statement signed by some 200 Faculty members to a meeting of faculty and staff that opposed the war in Indochina and the invasion of Cambodia.

Throughout his career he paid particular attention to the University Library and chaired the Senate Library Committee when the present campus Librarian was recruited. He was particularly proud of having served a term on the Editorial Committee of the system wide Academic Senate, which determines the books published by the University of California Press.

Professor Volman served as department chair from 1974 to 1980. As a long time member of the UC Davis Faculty he was active in recruitment and evaluation of outstanding faculty in chemistry, as well as, for other departments in the University. In the early years of UC Davis he frequently served on committees to evaluate the performance of members of the Department of Art, which grew to become one of the finest in the nation.

Professor Volman had an outstanding reputation as a research chemist, primarily in the areas of photochemistry and chemical kinetics. Over the years he and his students developed or refined many state of the art experimental methods. He was principally interested in systems involving hydrogen and oxygen, i.e., hydrogen peroxide, ozone, and various free radicals formed either by irradiation or by chemical reactions. Over twenty of his publications dealt with the chemistry of hydrogen peroxide. His research investigations were primarily concerned with the pure chemistry of these subjects, but the results had major applications to the problems of air pollution in atmospheric chemistry, combustion and interstellar chemistry. In 1951, he and his long- time departmental colleague, the late Professor Robert K. Brinton while studying diazoethane, discovered the first organic diradical, ethylidene. This diradical is a key intermediate in the formation of soot in combustion as well as in the interstellar medium. He was one of the pioneers in the application of electron spin resonance to the study of free radicals in solution.

He regarded photochemistry merely as a tool for the study of chemical reactions, and it was the chemistry of the various systems that he focused on. He always emphasized to his students that the sine qua non of any research must be a thorough understanding of the thermodynamics of the system of interest. He had an elegant understanding of chemical thermodynamics in all its aspects, and several of his papers were devoted to this topic. Over nearly forty- years, he taught the subject to hundreds of students with diverse academic interests, many of whom who went on to have distinguished scientific careers. While he personally had less than twenty graduate students, he mentored many more and was always available to graduate and undergraduate students alike.

He often collaborated with faculty members from the College of Agriculture in research on colloids and surfaces. This was a continuation of an interest in the surface chemistry that resulted from his work as a civilian for US- OSRD at Northwestern University.

On campus, he was well known for his love of a cigar, and was rarely seen without one. He even fitted his bicycle with a cigar holder so he could relight on reaching his destination.

He had a lifelong interest in many types of music, especially jazz and opera. His other interests included tennis, in which he successfully competed in local tournaments for many years, swimming every summer at the university pool, and handicapping football games. He enjoyed camping on the Mendocino coast, where he instilled in his children a love of fishing. He also appreciated good food and wine, and served a long tenure as a wine judge for the California State Fair. Professor Volman is preceded in death by his wife Ruth Jackson Volman who passed away in 2001; together they leave three children Dr. Tom Volman and his wife Leslie Horowitz, of Ithaca, New York; Dr. Susan Volman and Dr. Daniel Volman, of Washington, DC. Professor Volman's children grew up in Davis, California.

Thomas L. Allen  
William M. Jackson  
Charles P. Nash