Harold S. Olcott, Food Science and Technology; Marine Resources: Berkeley and Davis

1909-1979
Professor of Marine Food Science, Emeritus

Harold Olcott was possessed with an insatiable curiosity. This trait contributed greatly to his productivity as a scientist and made him a lively conversationalist. His sense of amazement at learning something new about anything -- a molecular reaction or one of his acquaintances -- was genuine and freely expressed -- "I never knew *that*!"

He was born in Denver, Colorado, on July 24, 1909, and died on February 4, 1979. He grew up in the Denver area and obtained both B.S. and M.S. degrees from the University of Denver. His Ph.D. degree was from the University of Iowa in 1931. Following postdoctoral positions at Iowa and Yale, the latter as a National Research Council Fellow, he accepted a position as a research fellow at the Mellon Institute in Pittsburg. In 1941, he moved to the Western Regional Research Laboratory of the U.S. Department of Agriculture. While at this laboratory he made substantial contributions to the area of protein modification and in the development of analytical procedures for use in the study of proteins.

In 1955, Harold Olcott was named first Professor in the newly founded Institute of Marine Resources of the University of California and was nominated by its Director, Charles Wheelock. He was housed in a laboratory in Hilgard Hall at Berkeley that had served for many years as the home of Dr. William Cruess, founder of the Food Science and Technology Department of the University of California. With other members of the Institute housed in Berkeley, Dr. Olcott moved to the Davis campus in 1970. At the time of his death he was Emeritus Professor in the Institute of Marine Resources and in the Department of Food Science and Technology.

Harold Olcott made significant scientific contributions in a number of areas. However, it seems reasonable to conclude that his work in lipid oxidation and the mechanism of antioxidant action may have been the most noteworthy. In the 1930s while a postdoctoral student in the laboratory of Professor H. A. Mattil, he did pioneering work in describing the properties of vitamin E and published a series of papers dealing with autoxidation of fats, including studies on antioxidants. Later papers on vitamin E described its biological function. He and Dr. Mattil also first defined synergists (in lipid oxidation) as compounds which usually have no antioxidant activity but which enhance the effects of antioxidants.

That portion of his career with the U.S.D.A Laboratory dealt mainly with proteins and resulted in a number of important papers, many in collaboration with Dr. Heinz Fraenkel-Conrat. However, later at the University he returned to his interest in lipid oxidation and resumed his search for the mechanism by which certain types of antioxidants function. The substantial body of work completed under the direction of Dr. Olcott at Berkeley and Davis can hardly be summarized here, but it seems appropriate to note that his theory of the function of stable free-radicals as antioxidants appears to have general application. This theory has implications in biology far beyond technological considerations in the handling and processing of foods.

Through his involvement with the Institute of Marine Resources, Harold Olcott made more immediate practical contributions to the tuna industry in California by suggesting the use of antioxidant materials for the preservation of fishery by-products and helping to cope with a variety of toxicological problems.

He played a key role in the development of the aquaculture program of the University of California, serving in the 1970s as an Assistant Dean for Aquaculture. He was not without concern for citizens outside the scientific community and took particular interest in promoting the use of fluoridation for the betterment of dental health in children. This activity led him to numerous, and vigorous, oral and written debates with an irate opposition from which he never backed away.

Travel was a vital part of the life of Harold Olcott, and his journeys throughout the Orient, Russia, Scotland, Tasmania, South Africa, and South America led to the establishment of important avenues for the exchange of scientific information.

Harold Olcott's scientific achievements did not go unnoticed by his peers. He received the American Chemical Society Eli Lilly Award in Biochemistry in 1935; the American Oil Chemists' Society Bailey Award in 1969; the American Oil Chemists' Society Bond Award in 1975; the Institute of Food Technologists' Babcock-Hart Award in 1976; and the American Chemical Society Award for Distinguished Achievement and Service in Agricultural and Food Chemistry in 1976. He was a fellow in the Institute of Food Technologists and in the American Institute of Nutrition.

His activity following his formal retirement in 1977 was typical for him: he journeyed to Taiwan to be a visiting professor at National Taiwan University for six months. At the time of his death, he was actively involved in pursuing research dealing not only with antioxidants, but also with the scombroid toxicity of fish products and with leprosy, the latter with researchers in such diverse locales as the U.S., Taiwan, and South America.

Dr. Olcott is survived by his lively and lovely wife, Bernice; two daughters, Dana and Peggy; and two sons, Jim and H.S., Jr. He is also survived by a host of former students and colleagues who occupy key scientific positions throughout the world from Korea to Israel, from Greece to Iowa, from Scotland to Santa Cruz, from Dallas to Japan. A fiercely loyal group, they will perpetuate the memory of Harold Olcott.

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