

# George H. Morrison

*August 24, 1921 — June 11, 2004*

Our good friend and colleague, George H. Morrison, died peacefully in his sleep on Friday, June 11, 2004 in Delray Beach, Florida, and was laid to rest in Ithaca, New York. His loving wife of over 50 years, Annie; three children, Stephen, Katherine, and Althea; and five grandchildren survive him. He was immediate past Editor of Analytical Chemistry, serving this publication with distinction through the years 1980-90.

George, a proud native New Yorker, was born on August 24, 1921 in Brooklyn. He received a B.S. degree from Brooklyn College in 1942 and was drafted into military service soon afterward. He was assigned to work at Princeton, New Jersey on the chemical purification of uranium for the Manhattan Project, an effort that led to an outstanding commendation from the U.S. Army for his contributions to the successful conclusion of World War II. George earned a Ph.D. degree from Princeton in 1948 at a time when it was one of the leading institutions for analytical chemistry, under the direction of N.H. Furman. There he met many of the individuals who like he, would lead and define analytical chemistry for decades.

George was an internationally recognized authority in the field of trace element analytical chemistry and materials characterization. He was a leader in the development of modern physical methods, including ion microscopy, solids mass spectrometry, neutron activation analysis, and atomic spectroscopy and their application to important solid state, cosmochemical, biological, and medical problems. He was one of a very select group of analytical chemists who made important contributions to both classical wet chemical methods of analysis and modern instrumental methods.

During his ten years as Head of Inorganic and Analytical Chemistry at GTE Laboratories, he made great contributions to methods for the characterization of semiconductor materials, which advanced the development of solid-state devices. During this time and together with James Cosgrove, he developed the technique of instrumental neutron activation analysis, which became one of the most effective tools of non-destructive trace element analysis. In 1957, he co-authored with Henry Freiser, *Solvent Extraction in Analytical Chemistry*, which was translated into more than a dozen languages and became the primary reference book in the field for decades.

George joined Cornell in 1961 as a Professor of Chemistry and Director of the Materials Science Center Analytical Facility and continued his pioneering research in trace analysis. He received the ACS Award in Analytical Chemistry in 1971 for performing the most complete and detailed analysis of the Apollo Lunar samples; an accomplishment

of which he was especially and rightfully proud. As editor of *Analytical Chemistry*, he not only maintained and enhanced the leadership position of the journal, but also advanced the stature of the field worldwide. The last decades of his research career were directed toward biomedicine, and his analytical innovations led to new concepts in the cell biology of calcium, and of boron, fluorine, and isotopically labeled therapeutic anti-cancer agents.

As a scholar and mentor, George trained generations of analytical chemists who went on to most successful careers in academia, industrial and government labs. To his students and research group members, he was unfailingly loyal and generous with his time. He co-authored over 400 professional articles many of which represented seminal contributions. In addition to the ACS Award in Analytical Chemistry mentioned above, George received numerous awards for his scholarly achievements including a Guggenheim Fellowship (1974-75), the Eastern Analytical Symposium Award (1986), and the Pittsburgh Analytical Chemistry Award (1990).

As a colleague, George was gracious and generous. We, as his former colleagues, students and members of the wider community of chemists, mourn his departure, but celebrate his contributions. His dignity, good humor, and wise counsel on matters beyond the world of ions and molecules will be deeply missed.

*J.T. Brenna, S. Chandra, F.W. McLafferty, H.A. Scheraga, H.D. Abruña.*