

# Michell J. Sienko

*May 16, 1923 — December 4, 1983*

Michell J. Sienko exerted a major influence on the field of inorganic chemistry through his teaching, writing, and research. His influence was also felt by his friends and colleagues, who admired his industry, his creativity, and his integrity.

Mike was born in Bloomfield, New Jersey, and grew up in Middletown, New York. He received the B.A. degree from Cornell in 1943. He was a Cornell Scholar, a New York State Scholar, and a Boldt Fellow. He was awarded the Ph.D. degree from the University of California, Berkeley, in 1946 and spent a year in postdoctoral work at Stanford University. He then returned to Cornell as instructor and was promoted to assistant professor in 1950, to associate professor in 1953, and to professor in 1958. During his thirty-six years on the Cornell faculty, he taught more than 25,000 undergraduate students and supervised some 350 graduate student teaching assistants. At the same time, he carried out a major research program in which he supervised the graduate training of over 25 graduate students and 15 postdoctoral associates.

Mike was a superb teacher. He has been described by Roald Hoffmann, Nobel laureate and chairman of Cornell's Department of Chemistry, as "the best general chemistry lecturer any of us has ever heard." From his teaching experience he developed a fresh new approach to chemistry that he and Robert Plane implemented in a series of four textbooks that have by now sold well over a million copies here and abroad. In addition, he wrote two advanced texts and was a co-author of two others. His brilliant teaching was recognized by the Cornell College of Engineering and College of Arts and Sciences, from which he received the Sporn Award and the Clark Award, and by the American Chemical Society, from which he received the Award in Chemical Education.

Mike did his research in an area that is on the borderline between inorganic chemistry and solid-state physics. Just as his teaching was characterized by ventures into new approaches, so was his research directed toward new concepts in the structure of materials. The results of his studies have been reported in more than one hundred papers published in leading American and foreign journals. Typical of his research was the synthesis of a new material, the determination of its structure, and his interpretation of its properties in terms of condensed-matter chemistry and physics. He liked to work with unusual materials that exhibited special behavior that could provide answers to important fundamental questions. He worked with metal-ammonia systems, nonstoichiometric oxide bronzes, and layered compounds. He was interested in the electronic properties of these materials as revealed by

X-ray analysis, by magnetic resonance, and, in some cases, by superconductivity. It was typical of his research that he opened up new areas of investigation that have become subjects for intensive study by other chemists and physicists.

Mike developed strong ties with many colleagues in Europe during his frequent visits to major European laboratories. He was a Fulbright lecturer at Toulouse and a Guggenheim Fellow at Grenoble. He also held visiting professorships at Paris and Vienna and was a visiting fellow at Clare Hall College, Cambridge. He brought young chemists from these institutions to Ithaca to work with him as postdoctoral associates.

Mike had a deep commitment to the community of chemists. He frequently gave lectures to high school and college groups. For a number of years he was a lecturer designated by the American Chemical Society in a program to sponsor visits to colleges by outstanding chemists. He was active in the affairs of the society, was a member of the Examination Committee in the Division of Chemical Education, and was chairman of the Inorganic Subcommittee. He recognized the need for a new journal in the field of research and so, in 1969, was a cofounder of the *Journal of Solid State Chemistry* and served as an editor until 1982. The October 1984 issue of the *Journal* is being planned as a memorial in his honor.

Mike had very close ties to his graduate students and postdoctoral associates. Every Friday he took them all to lunch, a working lunch, since he used the occasion to discuss matters of general interest to the group. But he also made strong personal bonds to each of them. He knew their families and continued his close relationship with them long after they left Cornell.

Mike was a rather private person. He obviously enjoyed spending many hours alone in his office or laboratory, writing or making experimental observations. He also enjoyed working in his woodlot, clearing brush, or cutting firewood. His social life was centered about his family—his wife, Carol, and daughter, Tanya, and a small group of fortunate friends to whom he was loyal and most generous. His generosity was also directed toward the arts, in particular toward music and ballet, which were special interests of Carol and Tanya. He also gave generously to support office seekers who shared his political concerns. When he believed in something or someone, he backed his belief with commitment and support.

Mike's untimely death, which followed by less than four months the death of Carol, is mourned by his friends and colleagues, who enjoyed his company and learned from him and who had looked ahead to a continuation of their

association with him. But he has left us with pleasant memories of a man who achieved great distinction in his profession and who enriched our lives by being with us.

*Harold Scheraga, Benjamin Widom, John DeWire*