

Obituary of Foil A. Miller

Foil A. Miller, age 100, chemistry professor emeritus at the University of Pittsburgh, died peacefully in his sleep in Glenview, IL on September 20, 2016. He was born in Aurora, IL on January 18, 1916 and raised in the village of Pepin, Wisconsin. After obtaining a B.S. in chemistry at Hamline University, St. Paul, MN, he earned his Ph.D. at Johns Hopkins University. Following a postdoctoral fellowship at the University of Minnesota with Prof. Bryce Crawford, he taught for four years at the University of Illinois. He moved to Pittsburgh, PA in 1948 to join the staff of Mellon Institute as Head of its Spectroscopy Division. In 1967 he transferred to the University of Pittsburgh as University Professor and Head of the Spectroscopy Laboratory. He retired from Pitt in 1981.

His research, which has been primarily in infrared and Raman spectroscopy, has been described in about 100 publications. It involved problems with vibrational assignments and in molecular structure and bonding.

He was a co-Editor of Spectrochimica Acta (1957-1963) and Secretary of the IUPAC Commission on Molecular Structure and Spectroscopy (1969-1975). In 1957-1958 he held a Guggenheim Fellowship in Zürich. He was a Visiting Professor in Japan in 1977 and in Brazil in 1980. He received the 1964 Pittsburgh Spectroscopy Award, the 1965 Pittsburgh Award of the American Chemical Society, and the 1973 Hasler Award of the Society of Applied Spectroscopy.

Foil gave over 400 invited professional talks, including 32 speaking tours for the American Chemical Society. The latter may be a record. One talk, "Great Mistakes in Science", was given 144 times.

He may have held another record in his last years of being the world's earliest Raman and infrared spectroscopist then living. He began work in Raman in 1939 and in infrared in 1941. He is also one of the few people to have seen conventional Raman lines with his naked eye.

Among Foil's hobbies was collecting stamps dealing with chemistry and physics. He authored over 180 articles concerning or using them. In 1998 he and Prof. Edgar Heilbronner of Switzerland coauthored the book *A Philatelic Ramble Through Chemistry* which is regarded as

the bible on the subject.

Foil was predeceased by his wife of 65 years, Naomi, and is survived by sons Bruce and Craig, a granddaughter and grandson and great-grandson.