



Evan C. Horning

June 6, 1916 - May 14, 1993

Evan C. Horning, Secretary of the Board of *Organic Syntheses* (1940-1949) and Editor-in-Chief of Collective Volume III (1995), died on May 14, 1993. After a number of years as an organic chemist, his interests changed to analytical biochemistry where he and his wife, Marjorie, made outstanding contributions to the fields of gas chromatography, mass spectrometry, and gas and liquid-mass spectrometric analysis of biological materials.

Dr. Horning was born in Philadelphia, PA, received a B.S. degree from the University of Pennsylvania (1937) and a Ph.D. from the University of Illinois (1940), doing his thesis work with Professor R. C. Fuson. He was an instructor at Bryn Mawr College during 1940-1941 and became an instructor of chemistry at the University of Michigan (1941). Here he met his wife, Marjorie, who became his co-worker and co-author of numerous publications for over 50 years.

At Michigan, he and his associates studied alkyl-substituted 2-cyclohexen-1-ones and their isomerization to aromatic compounds. Related studies were continued at the University of Pennsylvania where he became an assistant professor (1944) and an associate professor (1945-1947). His interests shifted gradually to the furans, coumarins, and morphine-type compounds. He accepted the position of Chief of the Laboratory of Chemistry at the National Institutes of Health in 1950.

Horning and his co-workers' investigations of biological materials led to methods for their purification and identification by gas chromatography. They developed procedures for separation of sugars as acetyl derivatives and steroids as trifluoroacetoxy compounds. They also were successful in using gas chromatography for studying cholesterol esters and separation of sapogenins. These investigations produced new liquid phases for gas chromatography separations of steroids. In addition, his group investigated extensively the isolation and structure of a number of alkaloids.

From 1966 to 1986 Horning was Director of the Institute of Lipid Research, Chairman of the Biochemistry Department (1962-1966), and Professor of Chemistry at Baylor College of Medicine (1961-1986). During this period he applied gas chromatography to steroids in human fluids, urine, bile and spinal liquids, and to amino acid derivatives. His group isolated acids, alcohols, and waxes from human skin. Here they applied mass spectrometry and liquid or gas chromatography to the identification of numerous human substances. They extended these techniques to investigations of the metabolism of many different compounds in humans.

Dr. Horning received numerous honors and awards including a Guggenheim Memorial Fellowship at the University of London Post Graduate Medical School; the Torbern Bergman Award of the Swedish Society of Chemists; Dr. h.c., Karolinska Institute, Stockholm, Sweden; M.S. Tswett Medical in Chromatography; Wamer-Lambert (General Diagnostics) Award, Am. Assoc. Clin. Chem.; C. W. Scheele Award, Pharmaceutical Society of Sweden; Dr.h.c., University of Ghent, Ghent, Belgium; ACS Award in Chromatography; Founders Award, Chemical Industry Institute of Toxicology; Tswett Commemorative Medal, Soviet Academy of Sciences; S. S. Dal Nogare Award in Chromatography; Southwest Science Forum Award; and the ACS Frank H. Field and Joe Franklin Award in Mass Spectrometry which he shared with his wife, Marjorie.

Horning was a member of many scientific and honorary societies and served on several editorial boards besides that of *Organic Syntheses*. They included *Journal of Medicinal Chemistry*, *Chemical Reviews*, *Analytical Biochemistry*, *Analytical Letters*, *Journal of Chromatography*, *Advances in Lipid Research*, *Life Sciences*, and *Journal of Atherosclerosis Research*.

Evan was a quiet, soft-spoken, self-effacing man with a sly sense of humor. He was admired and enjoyed by his associates, of whom the most help of all was his devoted wife Marjorie. Not only did they share common interests at work, but enjoyed traveling, gardening, and classical music, as well as sculpture, painting, and other forms of art.

Norman Rabjohn
March 15, 1994