



William Garfield Dauben

November 6, 1919 - January 2, 1997

William G. Dauben, Editor-in-Chief of Volume 45 of *Organic Syntheses* and long-standing member of its Board of Directors, died in his home in Kensington, California, on January 2, 1997 at the age of 77.

Bill Dauben was born in Columbus, Ohio, and received his B.A. degree from the Ohio State University in 1941. He followed his brother Hyp J. Dauben Jr. to Harvard University where Bill obtained his M.A. in 1942 and Ph.D. in 1944. Dauben carried out his Ph.D. research during 1941-1944 on cardiac glycosides, and on anti-malarials as part of a wartime research project, primarily under the direction of L. F. Fieser. He joined the faculty at the University of California-Berkeley as instructor in 1945 and rose to the rank of full Professor in 1957. In 1947 he married Carol Hyatt, then a graduate student studying x-ray crystallography with D. H. Templeton in the Chemistry Department. His career at Berkeley was contemporary with those of two other distinguished chemistry faculty members, Professor James Cason and Henry Rapport. These three young scientists launched what would soon become a world class program in organic chemistry at the University of California. On the occasion of his retirement from the teaching faculty in 1990, Bill was awarded the Berkeley Citation in special recognition of his outstanding career in teaching, research, and professional service.

He maintained an active research program throughout his academic career up to the time of his death. During his 52 years in the Chemistry Department at Berkeley he provided research training for more than 200 graduate students, undergraduates, and post-doctoral associates. His career-long interests in the chemistry of steroids and polycyclic compounds no doubt originated at Harvard University from his associations with the Linstead and Fieser research groups. Dauben's early work on the use of carbon 14 labeling to track steroid biosynthesis not only revived the squalene hypothesis, but it also led to the development of an efficient procedure for sidechain degradation that became widely adopted in the pharmaceutical industry. Bill's research interests were very broad-ranging and his 300+ publications had a profound impact on the development of synthetic organic chemistry, steroid and terpene chemistry, mechanisms of carbonium ion and metal-induced rearrangements, polycyclic

compounds, and photochemistry.

His elucidation of the structure of suprasterol, an over-irradiation product of vitamin D, eventually led him into extensive research on the diverse photochemical reactions of conjugated dienes. He was early to recognize the power of NMR spectroscopy, using this new analytical tool in 1954 to deduce the structure of ψ -santonin. The structure determination of cembrene in 1962 and later its total synthesis by the Dauben group laid the foundation for the growth of this now huge family of macrocyclic diterpenes. In characteristic Dauben style the total synthesis of thujopsene was followed by fascinating studies on the stereochemistry and mechanism of the cyclopropylcarbinyl rearrangements of this sesquiterpene and its hydration product, widdrol. Intramolecular [2+2] photocycloadditions of polycyclic dienes provided access to highly strained cage molecules for investigations in the Dauben group on carbonium ion and metal-catalyzed skeletal rearrangements. More recent accomplishments were challenging total syntheses of the natural products kernpene, crassin methyl ester, spatol, and the ceroplastol nucleus. He was also a pioneer in the use of high-pressure reactors to facilitate otherwise unfavorable transformations such as Diels-Alder cycloadditions.

Bill was elected to the National Academy of Sciences in 1970, he was chairman of its Chemistry Section during 1977-1981, and he was member of the American Academy of Arts and Sciences. He was awarded Guggenheim fellowships in 1951 and 1966, a National Science Foundation Senior Fellowship in 1958, and a Miller Research Professorship at Berkeley in 1963. His numerous honors from the American Chemical Society include the California Section Award in 1959, the Ernest Guenther Award in 1973, and an Arthur C. Cope Scholar Award in 1990. Among the international recognitions Bill received are a U.S. Senior Scientist Award from the Alexander von Humboldt Foundation, an honorary doctorate from the University of Bordeaux, two Japan Society for the Promotion of Science Awards, and an honorary membership in Pharmaceutical Society of Japan.

Bill Dauben's service to the organic chemistry community was extraordinary. He served on the Medicinal Chemistry Study Section of the National Institutes of Health, the Chemistry Panel of the National Science Foundation, and the editorial boards of the *Journal of Organic Chemistry and Steroids*, and he chaired the American Chemical Society's committee on publications. As a member of the Board of Directors of Organic Syntheses, Inc. for thirty years to the time of his death, he was influential in the management of its investments and financial affairs. Bill's leadership is widely credited for the resuscitation of *Organic Reactions* in 1969 when he became Editor-in-Chief and President, and he was instrumental in its publication and operation for 19 years.

Letters collected in 1976 to celebrate his 30 years at Berkeley show the profound admiration and high esteem of his former students and research collaborators, their fond memories of the time spent in the Dauben laboratories, and the impact he had on their lives and careers. Always fastidiously dressed in stylish Ivy League attire, invariably in the earlier years sporting a bow tie, The Man (in some periods "The Boss") was the consummate gentleman-scholar. He was an inspiring classroom teacher, a patient and encouraging research advisor, and an understanding, forthright counselor to his students. In frequent travels and sabbaticals abroad he made numerous friends

throughout the US. and worldwide who advised their own students to join the Dauben group. He was keenly interested in each student as an individual, and he and Carol took great pride in keeping close track of Dauben group members after their departure. He was an excellent golfer, more frequently than not winning the annual Dauben Group Open. Bill Dauben is survived by his wife Carol, his two daughters, Barbara

Baumer of Portland, Oregon and Ann Klaus of College Station, Texas, and two grandchildren. His comradeship, his wise counsel, and his savoir faire will be sorely missed by friends, colleagues, and family.

Robert M. Coates
August 25, 1997