

Obituary: Ernest Wenkert

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On June 20, 2014, Professor Emeritus Ernest Wenkert of the University of California, San Diego died in the city of San Diego, USA. This American researcher was an extremely important figure for the Brazilian chemical community during the period 1960-1980. His collaboration with Prof. Otto R. Gottlieb was very fruitful and allowed him to advise several PhD students and postdoctoral fellows from Brazil (see more details in A. C. Pinto, F. C. da Silva, V. F. Ferreira, *Quim Nova*, Vol. 35, No. 11, 2317-2323, 2012).



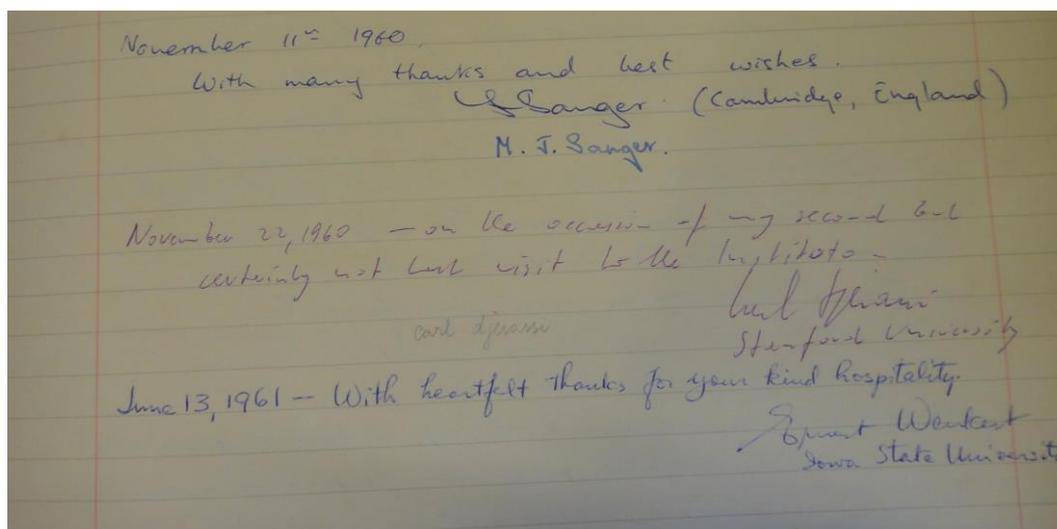
Ernest Wenkert was born in Vienna, Austria, on October 16, 1925 and emigrated to the United States when he was 15 years old. He graduated from Garfield High School (Seattle, Washington) in 1943 and subsequently completed his degree in chemistry at the

University of Washington in 1945. He obtained a master's degree (M.Sc) in chemistry from the same institution in 1947 and was appointed a temporary faculty member in chemistry at Lower Columbia Junior College (Longview, Washington) from 1947 to 1948.

With a recommendation from Prof. Hyp Dauben, he was admitted to Harvard University, where he joined the research group of Professor Robert Burns Woodward (04/10/1917 - 07/08/1979, Nobel Prize in Chemistry in 1965). In 1951, he defended his Ph.D. thesis titled "Syntheses in the strychnine series" under the supervision of Prof. Woodward. In the same year, he became a faculty member of the State University of Iowa, remaining there until 1961. He then moved to Indiana University, where he was appointed Herman T. Briscoe Professor. He remained at this university from 1961 to 1969. In 1973, he moved with his research group to Rice University as E.D. Butcher Professor (1974-

1980) and was the head of the Chemistry Department from 1976 to 1980. Finally, Prof. Wenkert moved to the University of California, San Diego, where he was Professor and subsequently Professor Emeritus.

The academic life of Prof. Wenkert was devoted to the chemistry of natural products and organic synthesis, searching for new compounds with the potential for producing drugs. More specifically, his studies were directed toward the structural determination of natural products with Nuclear Magnetic Resonance (NMR) techniques and the total synthesis of indole alkaloids and terpene skeletons. He was one of the pioneers in the chemistry of diazo compounds and in the development of new methods of synthesis involving reactions mediated by transition metals (cross-coupling reactions). His first article, published in 1947, addresses the synthesis of tetrahydropyretrolone, and the last, published in 2005, covers the synthesis of



hydrindanone.

Prof. Wenkert and other researchers were invited to visit Brazil, possibly in 1962, when the Brazil National Institute for Educational Studies and Research (INEP) coordinated a visit by several scientists from the USA with the purpose of establishing an exchange program between the newly created University of Brasília and the University of Indiana.

There is no record of the exact date when Professor Wenkert first visited Brazil. There is a strong indication that it occurred in 1961, when he visited the Institute of Agricultural Chemistry (IQA) in Rio de Janeiro. His visit to IQA was registered in the guestbook on June 13, 1961. At that time, Profs. Walter B. Mors, Otto R. Gottlieb and Mauro Taveira Magalhães, among others, were at this Institute. Most likely, the scientific collaboration between Prof.

Gottlieb and Prof. Wenkert began then.

The first of many graduate students to be advised by Wenkert was Prof. Jayr Campello de Paiva, who obtained his master's degree at Indiana University (Bloomington) with a fellowship from the Rockefeller Foundation. It is noteworthy that Professor Campello was the first Associate Director of the Institute of Chemistry of UNICAMP. Professor Anita Jocelyne Marsaioli from UNICAMP also did a short postdoc at the University of California at San Diego in 1985. This study of the formal synthesis of the terpene rosefuran resulted in one publication. Professor Roberto Ribeiro da Silva, a chemist who graduated in 1965 from the Federal University of Minas Gerais (UFMG), was another master's degree student advised by Prof. Wenkert at Indiana University. Professor

Silva is now a full professor at UNB. Between 1974 and 1975, Professors Nidia Franca and Tanus Jorge Roque Nagem, from USP and UFMG, respectively, went to Rice University for post-doctoral studies of syntheses and NMR. At the same time, Professor Jose Rego of Sousa completed a postdoctoral project on oxycyclopropanes. Another Brazilian to obtain the PhD degree with Wenkert was Afrânio Craveiro Aragão at Indiana University, where he worked with the synthesis of alkaloids. Currently, Aragão is a retired professor from the Federal University of Ceará (UFC).

Between 1982 and 1983, Prof. Wenkert supervised the postdoctoral studies of Arnaldo Felisberto Imbiriba da Rocha (Federal University of Amazon) on the chemical composition of *Microplumeria anomala*, a native plant of the Amazon.



At approximately the same time, 1980-1984, Vitor Francisco Ferreira conducted his PhD studies at the University of California, San Diego. Dr. Ferreira was one of the last Brazilian students to work in Prof. Wenkert's laboratory. He is now full professor at Fluminense Federal University (UFF) and is a former president of the Brazilian Chemistry Society.

The activities of Prof. Wenkert in Brazil were not only devoted to the guidance of Brazilian students. He was also responsible for bringing young PhD students from the USA to Brazil to stimulate the growth of the Brazilian chemistry community. One of these students who came and stayed in Brazil was Professor Peter Bakuzis,

currently retired professor at UNB, who completed his PhD in 1969 at Indiana University under the supervision of Prof. Wenkert.

Prof. Wenkert taught two courses at the graduate level: Organic Synthesis (July 1971) and Advances in Nuclear Magnetic Resonance Spectroscopy (July 1972) at the Rural Federal University of Rio de Janeiro (UFRRJ). At that time, he collaborated closely with Prof. Raimundo Braz-Filho, a well-known chemist of natural products (see photo below). This interaction resulted in a publication in *Helvetica Chimica Acta* on the application of ^{13}C NMR to the determination of the structure of iboga alkaloids.

Many years have passed since the beginning of the journey of Professor Wenkert in 1961 in Brazil. He made many contributions to the formation of individuals who eventually became leaders in research in their institutions. All those who knew Professor Wenkert have many valued memories of their interactions with him. Surely, Brazil owes a debt of gratitude to this distinguished scientist, who came to the country several times and brought many people to the USA to work in his group at a time when chemistry in Brazil did not yet have the strength it enjoys today. Prof. Wenkert surely deserves thanks for everything accomplished by chemistry in Brazil.

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