

## Obituary

Josef Franz Karl Huber

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**(Josef Franz Karl Huber)**

Josef Franz Karl Huber passed away on 15 August 2000. Many scientists in the world feel his death as a great loss. It is appropriate to devote in this journal

some words to his life and work as scientist and to his significant contributions to analytical chemistry involving separation science. Josef Huber was born

in Salzburg, 1 January 1925. Being 14 years old when the second world war broke out, he was drafted into the German army, wounded in combat several times and ended up as a POW. Only at the age of 25 he could start his chemistry study, which he finished 1960 with a doctorate about a physico-chemical topic under supervision of Professor Erica Cremer in Innsbruck. In the same year he married Josepha Lünig. Older participants of international meetings will remember her vividly as an extremely congenial lady to Josef with an intense interest in history and culture. Josef went through the distress of losing her in the year 1997, after a life-long happy marriage. They had one son, Wolfgang, who is now a respected toxicologist at the University of Vienna.

After his doctoral degree Josef's career continued in The Netherlands. He was first four years in Eindhoven Technical University, where a new and strong group in instrumental analysis was founded by A.I.M. Keulemans, and where he got in contact with pioneers in separation science such as Marcel Golay and A.J.P. Martin. It was during that time that J.F.K. Huber expanded the basic theoretical concepts of separation methods [1] from which he could embark on the development of fast column liquid chromatography using small particles, the technique we now know under the name HPLC. Since then, HPLC was one of his main interests, and he is considered by many as one of the founding fathers of HPLC [2].

In 1964 he moved to Amsterdam University and founded there his own group on separation methods. During this time in Amsterdam (until 1974) many of his most influential papers appeared. Anything connected with the possibilities and problems of HPLC has been the subject of research: column design, plate height equations, detectors, data handling, analysis of body fluids, environmental problems, etc. [3–5]. The group expanded rapidly, became an internationally recognised “centre of excellence”, and the place was crowded by visitors, and visiting scientists, who wanted to learn or practice HPLC, in particular the method to make HPLC columns with particle sizes below 10  $\mu\text{m}$ . The latter technique was mastered by his most important co-worker at that time, Johan Kraak, a technique later superseded by “slurry packing” for the same type of porous microparticles.

In 1974 Josef moved to the University of Vienna

taking the Chair for Analytical Chemistry. Here, his research indeed encompassed a broader field including diverse analytical methodologies: studies on column switching, already started in Amsterdam as a solution to the “general elution problem”, were now harnessed for increased selectivity, leading to the concept of multidimensional chromatography. At international fora he became a prominent proponent of such techniques, which have later been followed by many others [2]. This work naturally led to the development of theories regarding multidimensional (“hyphenated”) analytical systems.

The time in Vienna is marked by another important facet of Josef's activities: At the time of the iron curtain, he succeeded continuously in establishing fertile scientific connections between “East” and “West”. Even before the time in Vienna he had been a member of the committee of the “Science Exchange Agreement”, an organisation funded by Clark Hamilton, supporting the scientific contacts and the exchange of East- and Western-European scientist as visiting colleagues. Numerous people have benefited from this program. One result has been the installation of the series of “Danube Symposia”, where intense scientific contact across the iron curtain was made possible. The well known conference series known since 1984 as “HPLC” X, with X standing for the year, should particularly be mentioned here. The first meeting of this series, unique in being entirely devoted to liquid phase separations, was organised in Interlaken, Switzerland, by W. Simon in 1973. The initiative for it was taken by Huber, Jack J. Kirkland, and John Knox. J.F.K. Huber always felt strongly connected with this meeting series, calling it “his” meeting. The continuing success of these annual meetings, usually attracting thousand or so scientists, demonstrates the vision that these pioneers had in the early 1970s.

The significance of J.F.K. Huber's work in analytical chemistry, laid down by over 100 scientific papers, is certified also by many international awards and assignments. He was editor of more than 10 international journals and book series. He acted as chairman of numerous scientific organisations. Awards or honorary memberships were offered to him by G.A.M.S., the French Analytical Chemistry Society, the Russian Academy of Sciences (Tswett medal, 1978), the Delaware Valley Chromatography

Forum, USA (Dal Nogare Award, 1981), the Chromatographic Society, UK (A.J.P. Martin Award, 1988), the Technical University of Bratislava, Slovakia (Honorary Medal, 1985), and the Cross of Honour for Science and Art from the Austrian Republic (1988). He became honorary doctor at the University of Uppsala, Sweden, the Marie Curie-Sklodowskiej University in Lublin, Poland and the University for Chemical Technology in Veszprem, Hungary.

J.F.K. Huber implemented effectively his expertise, experience and his broad international contacts in Austria. He was strongly engaged in education in and outside the academic area, and installed, as he did in Amsterdam, a “centre of excellence” at the University of Vienna. In his position as director of the Institute of Analytical Chemistry, he steadily enforced fundamental research and development, but he found equally important to apply the analytical methods for the solution of practical problems. He devoted his power also to the success of the Austrian Society of Analytical Chemistry, where he held the position of the president for many years.

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