



Obituary

In Memoriam Professor Klaus Wiesener



Professor Klaus Wiesener passed away on 6th February 2011. With his death the international scientific community lost a major electrochemist.

Klaus Wiesener was born on 7th January 1935 in Arnstadt (Germany, Thuringia). From 1953 to 1958 he studied chemistry and radiochemistry at the TH Dresden. In 1961 he received his Doctorate, also from the TH Dresden (which was later to become the Dresden University of Technology, TU), for studies of the thermodynamics of the extraction of nuclear fuels. In 1969 he presented his scientific habilitation on technical redox processes in electrochemical cells, particularly the electrochemical oxidation of SO_2 to H_2SO_4 .

During his first job, at the Central Institute for Nuclear Research in Rossendorf (Germany), he became the leader of the working group on battery research and the development of electrochemical power sources, especially fuel cells.

He extended his battery knowledge during a two-year stay with the Berliner Akkumulatoren und Elemente Fabrik (BAE).

In 1969 Klaus Wiesener was appointed as a lecturer for technical electrochemistry at the Institute of Physical and Electrochemistry of the TU Dresden and in 1972 he was promoted to full professor for electrochemistry. The Institute has an outstanding history of electrochemical research. This tradition began with the first full professorship for electrochemistry in Germany to Fritz Förster in

1900 and was continued by Erich Müller and Kurt Schwabe. From 1985 to 1987 Professor Wiesener was the Head of the Chemistry Department of the TU Dresden and later he became Head of the Wissenschaftsbereich (Institute) of Physical Chemistry and Electrochemistry.

He was very active in both teaching and research. Much of the content of his lectures on physical chemistry, fundamentals of electrochemistry and applied electrochemistry have been incorporated into two monographs;

“Elektrochemische Stromquellen”, K. Wiesener, J. Garcke und W. Schneider, 1981 and “Elektrochemische Technologie und Verfahrenstechnik”, L. Franke, K. Hertwig, J. Kardos und K. Wiesener, 1984. The book “Elektrochemische Stromquellen” was for a long time the standard work on batteries and fuel cells on the German-speaking book market.

His research group “Galvanische Elemente” dealt, on the one hand, with applied topics such as the classical battery systems lead–acid and nickel–cadmium and, on the other hand, with more fundamental problems such as catalysis for fuel cells. The applied work was carried out in close cooperation with the battery industry. Professor Wiesener was already carrying out research into lithium battery systems as early as 1980. This work covered both fundamental research and device development. This work, which was carried out with an industrial partner, was ultimately crowned by the installation of a pilot line for the production of lithium cells. With this work Professor Wiesener was probably ‘ahead of its time’. This was also true of his research work on non-precious catalysts for fuel cells (tungsten carbide, macro-cycles such as phthalocyanines and porphyrins). The tungsten carbide electrode was also used as a hydrogen-consuming anode in place of the oxygen-evolving anode in electrolysis.

Some of this R&D work was carried out in an international cooperation with other distinguished scientists including Jiří Mrha, Jiří Jindra (Heyrovsky Institute Praha), Evgeni Budevski, Detchko Pavlov, Geno Papazov, Stefan Rudevski (CLEPS, Sofia) and Petar Rakin (IHIS Beograd). For years, he also had important contacts with Elton S. Cairns, Karl Kordesch and Vladimir S. Bakotzky.

The work of Professor Klaus Wiesener was highly respected around the world and he was elected as vice president of the International Society of Electrochemistry (1988–1990) and also as a member of the editorial board of the Journal of Power Sources.

In the year 1993 Professor Wiesener joined the Kurt-Schwabe Institut für Mess- und Sensortechnik, in Meinsberg, R&D institute of the TU Dresden. In Meinsberg he was responsible for several research projects in the field of batteries and he continued to supervise PhD students. He retired in the year 2000.

Professor Wiesener published 163 scientific papers and 43 patents and supervised 31 PhD theses and 2 habilitations. Two of his students were appointed as professors.

His coworkers and his students grew a warm appreciation for Klaus Wiesener not only as a scientist but also at a personal level. His sudden loss is felt deeply by his wife Tanja, his family, and many friends all over the world.

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