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OBITUARY

In Memoriam Associate Professor Ing. Vladimír Daněk, DrSc.

All of us have been deeply touched by the news that on 28 November 2005 an outstanding Slovak chemist, pedagogue, one of the founders of the Bratislava school on theory and practice of melting passed away.

Associate Professor Ing. *Vladimír Daněk*, DrSc. was born in Vienna on 6 April 1940. Since 1963 he had been working at the Institute of Inorganic Chemistry, Slovak Academy of Sciences and had become one of the most renowned experts in the field of physical chemistry of molten systems. In his research, Dr. Daněk concentrated on the establishment of relationships between the composition, properties, and structure of the inorganic melts that are suitable for electrochemical deposition of light and transition metals and binary compounds. He developed methodology for the determination of electrical conductivity of molten fluorides and studied the effect of addition of lithium fluoride and lithium hexafluoroaluminate on the electrical conductivity of the aluminium electrolytes. Later, he participated in the study of the metal deposition and of the surface modification of metal substrates in the molten salt media, especially at the processes of titanation and boridation of steel, as well as in the investigation of high-temperature sulfate and vanadium corrosion of the construction parts of thermal power plants.

During the years 1977—1985 Dr. Daněk focused on the study of the structure and physicochemical properties of the molten oxide systems, which are of importance in steel and iron metallurgy. He suggested a thermodynamic model of the silicate melts and applied it to a series of binary and ternary systems. Dr. Daněk also studied corrosion of basic thermostable refractory materials by steelmaking cinders. He developed a dissociation model of the molten salts mixtures and applied it to various types of inorganic systems. In 1991—1995 Dr. Daněk was director of the Institute of Inorganic Chemistry, Slovak Academy of Sciences. In this position he exerted his highly professional and organizational abilities. His functions also included heading the Department of Molten Systems and acting as a chairman of the Scientific Board of the Institute.

Dr. Daněk supervised six PhD. students and taught at the Slovak University of Technology. He published a script on the course of physical chemistry for the PhD. students of the Institute and worked on a Collection of the Tasks on Physical Chemistry. He also served as a member of the Joint Professional Board for PhD. studies in the field of Inorganic Technology and Materials and was a member of a Committee for the Defence of Doctor Dissertations (DrSc.) in the field Physical Chemistry and a chairman of such Committee in the field Silicate Technology.

In his work, Dr. Daněk collaborated with numerous foreign research groups, *e.g.* with the Institute of General and Inorganic Chemistry, Ukrainian Academy of Sciences in Kiev, Institute of Silicate Chemistry, Russian Academy of Sciences in Sankt-Peterburg, Institute of Physical Chemistry, Polish Academy of Sciences in Cracow, Institute of Inorganic Chemistry and Institute of Technical Electrochemistry of the Norwegian Technical University in Trondheim. He spent several-month research stays at the universities in Oslo and Trondheim, where he stayed as a visiting professor in 1995 and 1998.

Dr. Daněk to a great extent contributed to the international recognition of Bratislava school on melting science. His achievements were recognized with several awards, such as Award of the Czechoslovak Academy of Sciences (1986) and Award of the Slovak Academy of Sciences (1986 and 1989), Silver Dionýz Štúr Plaque of Honor (1990), and Golden Dionýz Štúr Plaque of Honor for achievements in natural sciences (2000).

Finally, let me include some personal recollections. I cannot forget the happy period in my life, when I shared an office room with Dr. Daněk. His exceptional diligence, his passion for scientific research, critical attitude to the results obtained and their interpretation, high demands he put on himself and his colleagues were an unforgettable school of "how science should be made" for me. He was a live example of a person, to whom science was not an employment, but rather a vocation, a mission, so that every day at work meant joy of obtaining new knowledge, and not a nightmare, as it is for some people. His unbreakable willingness to live, accompanying him all his life, are even more admirable for the reason that almost all his adult life Dr. Daněk

had fought pain and disease. In spite of this, he had worked, hard and with joy, until the very last minute, which is testified by a monograph "Physicochemical Analysis of Molten Electrolytes", which he had written for Elsevier Publishing House in the Netherlands. Dr. Daněk passed away just before making a final check of the manuscript galley proofs.

Dr. Daněk will be always warmly remembered and very much missed.

P. Šajgalík