



### **PROFESSOR ÁRPÁD KISS (1889—1968)**

Dr. Árpád Kiss, the late Professor of the Institute of General and Physical Chemistry of the University of Szeged, was born in Sáropatak, Hungary, in 1889. Immediately after graduation at the University of Budapest in 1912 he began to work in the Institute of Chemistry No. 3 at the University of Budapest under the guidance of Professor Buchböck. At the beginning, his experiments and scientific publications were connected with radioactivity. Later he became interested in the kinetics of homogeneous gas reactions between nitrogen oxide and chlorine, which was also the topic of his doctoral thesis. Having obtained his PhD degree he continued his scientific work at the University of Budapest.

Unfortunately his valuable scientific work was interrupted by World War I. He was called to the Army, got wounded and fell into captivity at the Eastern Front. During his captivity he worked as a phyto-pathologist and later as a botanist at the Agricultural Experimental Station of Nikolsk-Ussurisk as an employee of the Soviet Geographical Society. In 1920 he returned to Hungary and continued his research work concerning homogeneous gas reactions at the University of Budapest.

His work called international attention and he was invited to the Institute of General and Inorganic Chemistry of the University of Leyden, where he participated in the research work and education as an Assistant Professor between 1922 and 1924. In these years his researches were connected with the investigation of catalytic gas reactions. He established that in the process of nitrozy-chloride production catalyzed by bromine and nitrogen oxide, respectively, the reaction takes place through intermediate products. Considering the state of development of the theory of gas catalysis at that time, the results obtained in Leyden were of considerable importance.

In 1924 he was invited by the Faculty of Natural Sciences of the university of Szeged as a Professor of Chemistry. He returned to Hungary and henceforth he has been Professor of this University till his retirement in 1962. During this period he was twice the Dean of the Faculty of Natural Sciences and once the President of the University.

During his professorship his scientific work embraced almost every branch

of physical chemistry. In the first period his attention was given to the problems of reaction kinetics, especially to experimental checking of the Brönsted theory; primary and secondary kinetic salt-effect, kinetic effect of complex compounds, *etc.* He and his co-workers carried out pioneering work concerning the temperature dependence of the neutral salt-effect and the influence of salt concentration on activation energy.

In 1931 he directed his efforts towards a new field, the light absorption of electrolyte solutions, investigating the correlations between the light absorption and chemical structure of simple and complex compounds. He and his co-workers succeeded in producing the inner complexes of several metal ions, the existence of which was considered as questionable until then.

He elaborated a theory for the effect of ionization on the absorption spectra and on the solvent effect. Furthermore he improved the theory of oriented light absorption, interpreting the absorption spectra of several polycondensed organic molecules and the effect of the position of substituents on the absorption spectra. In the recent years he planned to crown his scientific activity by a monograph entitled: „Interpretation of the Absorption Spectra of Coordination Compounds on the basis of the Ligand Field Theory”. Death, however, prevented him to complete this monumental work.

Besides his work on the fields mentioned above, the investigation of the electrochemical corrosion of metals has also been started in Hungary under his guidance.

In 1953, as recognition of his remarkable scientific activity, he was elected corresponding member of the Hungarian Academy of Sciences. He also obtained from the Government the honours of Eminent Worker of Higher Education in 1953, the Order of the Labour in 1954, and the Kossuth-Prize in 1955.

Besides the Hungarian Chemical Society he was member of the American Chemical Society, of the Société Chimie de France and of the German Bunsen-Gesellschaft. Since 1945 he had been associate editor of the *Zeitschrift für allgemeine und anorganische Chemie*, a journal published in the German Democratic Republic.

Reflecting on the events of his life and the way he reacted to them and to other people's esteem, we have to acknowledge that as a scientist and as a man he belonged to the few who never changed and could retain a genuine modesty even when meeting with success and honours of the world. He devoted his life to scientific work and education. Even as a retired Professor he continued this work and he never ceased to give attention and help in problems of his students and his staff. He published his last paper, from the more than 150 written during his long scientific career, shortly before his 79th birthday.

He died the 10th November 1968 in a clinic of the University Medical School of Szeged, mourned by his wife, son, his earlier students and co-workers, and a host of friends throughout the world.