

## **Professor Marian Kryszewski 1925–2005**

Professor Marian Kryszewski, outstanding scientist in the field of physics and physical chemistry of polymers, founder of scientific school of polymers at the Faculty of Chemistry, Technical University of Łódź, and in the Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences in Łódź, passed away on 5th October 2005.

He received MSc. in chemistry under supervision of Professor Antoni Basiński for the analysis of catalytic decomposition of chlorinated olefins at Nicolaus Copernicus University in Toruń. He then worked in the team of Professor Aleksander Jabłoński – a well known specialist in the field of luminescence and molecular optics at the Nicolaus Copernicus University. Determination of absolute rate constant in vinyl bromide photopolymerisation was a basis for his doctoral dissertation, submitted in 1955.

Dr. Kryszewski was a post-doc at Centre de Recherche sur les Macromolécules in Strasbourg with Professor Henri Benoit in 1956–1957, and in 1960–1961 at Brooklyn Polytechnic Institute with Professor Herman Mark. In 1958, he was offered Chair of Physics at the Faculty of Chemistry of the Technical University of Łódź. His scientific achievements paved the way to his professorship and to membership of the Polish Academy of Sciences. Together with Professor Jan Michalski, he was co-founder of the Centre of Molecular and Macromolecular Studies of Polish Academy of Sciences, in 1972. For many years, Professor Kryszewski was Scientific Director and Head of the Polymers Physics Department at the Centre, which was soon recognized for its activity in the domain of polymer physics and chemistry. Simultaneously, Professor Kryszewski continued to be the Head of the Polymers Physics Division at Technical University of Łódź until his retirement in 1995.

Research interests of Professor Kryszewski and his groups at the Centre and at the Technical University covered an exceptionally broad spectrum of problems related to structure and properties of polymers and other organic materials in their condensed phases. A significant accomplishment of Prof. Kryszewski and his co-workers at the



Technical University was development of a new class of conductive materials composed of polymers and organic molecular crystals arranged in a “reticulate-doped” conductive network. Further research, carried out in collaboration with other groups, led to materials characterised by a high anisotropy of electric conductivity, high metallic conductivity and even superconductivity.

His collaborators continued research into dielectrics and high-molecular photoconductors such as thin layers of plasma polymers made of various heteroorganic monomers. These materials are very important due to their superior dielectric properties, a high thermal and chemical resistance and a capability of modification of their electro-optical properties. Professor Kryszewski was one of pioneers in developing this research frontier in 1960s.

From late 1960s Professor Kryszewski, together with the group, which later continued research at the Centre, was involved in pioneering studies of the morphology of crystalline polymer systems and its correlation with their mechanical, thermal and optical properties. Professor Marian Kryszewski was author and co-author of over 360 original articles and 50 reviews in renowned international journals, 2 monographs, co-editor of 3 books and co-author of 22 inventions patented in Poland and abroad. He was author of the fundamental monograph on electrical properties of polymer systems entitled *Semiconducting Polymers*, first published in Polish in 1968; its enlarged English language edition was co-published by Elsevier and Polish Science Publishers in 1980.

Professor Marian Kryszewski was active member of several scientific societies: member of the Polish Academy of Sciences and its Physics and Chemistry Committees; the Royal Society of Chemistry; the Society of Science Dissemination and Promotion; the European Physical Society. He was active in editorial boards of several journals including the *Journal of Applied Polymer Science*, *Composite Interfaces*, *Polymers for Advanced Technologies*, *Polymeric Materials*, *Polish Journal of Chemistry*, *Polimery*, *International Journal of Polymeric Materials*, and *Materials Science-Poland*. He cooperated with many research centres such as the Brooklyn Polytechnic Institute, Claude Bernard University in Lyon, Kyoto University and Max Planck Institute for Polymers Research in Mainz. In recognition of his achievements, he received numerous awards and distinctions including the Maria Curie-Skłodowska Award, the University of Kyoto Medal, the Convallaria Copernicana Distinction. He was also awarded the title of Doctor Honoris Causa by the Technical University of Łódź, and the title of Honorary Professor of the Wrocław University of Technology.

He supervised 45 PhDs, and 12 habilitations were prepared in his scientific school. Many of his former students are now professors at universities or leaders in academic and industrial research centres in Poland and abroad.

The polymer community, to which Professor Kryszewski was always a great authority, has suffered an irretrievable loss.

*Andrzej Galeski*  
*Jacek Ulański*