



# Mineralogical Society of Poland

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## TRIBUTE TO PROF. DR HAB. ENG. LESZEK STOCH (1931–2015)

*Honorary Professor of the AGH University of Science and Technology in Kraków*



Professor Leszek Stoch

On 20 January 2015 in Wieliczka, near Kraków (Poland), Professor Leszek Stoch passed away. He was an outstanding scientist, whose innovative achievements in Earth sciences, materials engineering, and ceramics are the pillars on which much of the Polish research in these fields currently stand.

Professor Stoch's early career focused on clay minerals and their host rocks and, despite his later diversification, it was clays that were to become his major scientific passion. His first large-scale scientific challenge was to characterize the mineralogical and technological properties of Polish kaolinite-bearing ceramic clays. His work had a substantial impact on the

opening of the kaolin mines in Kalno (Lower Silesia, Poland) and on ensuring that the kaolins in the lignite quarry in Turów (Lower Silesia) were processed as a useful associated mineral.

Professor Stoch also performed a detailed investigation into the Miocene clays from the overburden of the sulphur deposit in Machów, near Tarnobrzeg. His results laid the foundation for the technology of manufacturing specific clay-based sorbents, the so-called *bleaching earths*, which act to remove pigments from materials and take away unpleasant odors, all of which aid in the manufacture of pure minerals and of edible oils.

Other types of industrial minerals studied by Professor Stoch were the Polish glass sands and vein quartzes. He determined their mineral and chemical characteristics, which prepared the way to produce raw silica-rich materials with the required purity that were needed in the manufacture of whiteware ceramics and of special types of glass.

Professor Stoch also introduced new research methods to the Earth sciences. In the 1960s, he was the first person in Poland to design and construct a differential thermal analysis machine. These hand-crafted devices were used in many scientific laboratories across Poland.

Professor Stoch was highly regarded outside Poland for his work in mineralogy and mineral raw materials. For his many distinguished contributions, he was awarded the Emanuel Boricky Medal from Charles University in Prague (Czech Republic).

Professor Stoch's scientific accomplishments are contained in some 260 papers, 14 patents, his two books *Clay Minerals* (1974, Wydawnictwa Geologiczne) and *Biomaterials* (2003, Akademska Oficyna Wydawnicza), and many review-style book chapters such as "Structural thermochemistry of thermal processes" in *Flash Reaction Processes* (Kluwer Academic Press, 1995) and "Internal thermal reactions of minerals" in *Thermal Analysis in the Geosciences* (Springer-Verlag, 1991).

His very productive and diverse scientific activity led him to be elected a member of the Polish Academy of Arts and Sciences, to be a member of many other foreign and domestic scientific bodies, and to have received many state and regional awards. However, one of his most treasured awards was a relatively recent one, and it was from his home university in Kraków: in 2011, Professor Leszek Stoch received the title of Honorary Professor of the Akademia Górniczo-Hutnicza (AGH) University of Science and Technology (see *Elements* October 2011, p 354, for a photo of this event).

With the death of Professor Leszek Stoch, we have lost a wonderful professor, an unquestioned authority on ceramics and biomaterials who was admired by his peers and colleagues, a man with an inexhaustible supply of innovative ideas, somebody who was always ready to offer help and advice, and, last but by no means least, a person who was joyful and brimming with humour.

We are filled with deep sorrow that the man, at whose side we had the chance to develop ourselves as well as our research, has passed away. We will forever cherish the memories of dear Professor Leszek Stoch and of the times we spent together.

On behalf of Professor Leszek Stoch's alumni and colleagues:

**Irena Waclawska and Krzysztof Bahranowski**

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