

Preface

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In Hungary, education of chemical engineers and chemists is a long-standing tradition. The first chemistry department to be established in Hungary, in 1763 at the Selmezbánya Mining School, was also the first school to offer practical laboratory instruction. In 1769, a combined department of chemistry and botany was founded at the University of Nagyszombat. In 1777 it was transferred to Buda and later to Pest. In 1782 Emperor Joseph II established the Institutum Geometricum, the direct predecessor of the Budapest University of Technology and Economics, as part of the Faculty of Liberal Arts of the University of Buda. In 1846, the Department of General and Technical Chemistry was founded at the Joseph II Industrial School. The Royal Joseph Polytechnic became the Royal Joseph Technical University in 1871. The faculty of Chemistry was created in the academic year 1873/74 with two professorial chairs: the Department of Chemistry and Technology under Károly Nendtvich, and the Department of Physics, under József Sztoczek.

Over the course of its 145-year history the education and research work of our faculty has been illuminated by such renowned names as Vince Wartha, in the field of chemical technology, Lajos Ilosvay, in analytical and inorganic chemistry, Elek Sigmond, in agricultural chemistry, Géza Zemplén, in organic chemistry, Gyula Gróh, in inorganic and radiochemistry, Mór Korach, in chemical technology, Jenő Plank, in analytical and electrochemistry, József Varga, in hydrocarbon chemistry, János Proszk, in inorganic and electrochemistry, Géza Schay, in physical chemistry, Zoltán Csűrös, in textile chemistry, János Holló, in biotechnology and in agricultural chemistry, Ernő Pungor, in analytical chemistry, Gyula Hardy, in polymer chemistry, and Csaba Szántay, in organic and pharmaceutical chemistry.

György Oláh, recipient of the Nobel Prize in 1994, was also one of our students. After obtaining his PhD degree in 1949, he worked in the Department of Organic Chemistry with Professor Géza Zemplén.

The Faculty of Chemical Technology and Biotechnology is at present composed of five departments. The principal research areas of the Department of Applied Biotechnology and Food Science are industrial biotechnology and biochemistry, environmental and wastewater biotechnology, as well as cereal science. Those of the Department of Physical Chemistry and Materials Science are colloid chemistry, surface chemistry, soft matter, plastics and rubber technology. The Department of Chemical and Environmental Process Engineering specializes in chemical technology and energetics, environmental and process engineering, as well as in the technology of supercritical fluids. The Department of Inorganic and Analytical Chemistry is concerned with metal-organic chemistry, technical analytical chemistry, chemical nano- and biosensors, and pharmacokinetics. Lastly, the Department of Organic Chemistry and Technology is interested mainly in alkaloid chemistry, bioorganic chemistry, green chemistry, organometallic and organo-phosphorous chemistry, stereoselective synthesis and separation of stereoisomers, crown-ethers and supramolecular chemistry, pharmaceutical technology, as well as in technology of safety materials. With the arrival of the 21st century computational chemistry has assumed a vital role in these research activities. Such studies find their natural home both in the department of Physical Chemistry and Materials Science and in Inorganic and Analytical Chemistry.

This special issue of Periodica Polytechnica Chemical Engineering celebrates the 145th anniversary of the Faculty of Chemistry with a snapshot of original articles covering some of the most recent results of our research in chemistry, technology and biotechnology. The authors of these works are indebted to several Hungarian and European grant agencies, as well as to industrial partners, for financial support.