

Preface

This issue of *Pure and Applied Chemistry* is based on plenary lectures delivered at the International Conference on Modern Physical Chemistry for Advanced Materials (MPC '07), which took place 26–30 June 2007 in Kharkiv, Ukraine.

The Conference was sponsored by IUPAC and the European Association for Chemical and Molecular Sciences, and organized by V. N. Karazin Kharkiv National University in cooperation with L. M. Litvinenko Institute of Physical Organic Chemistry and Coal Chemistry of the National Academy of Sciences of Ukraine (Donetsk, Ukraine) and the Physical Chemistry Department of the Ukrainian Chemical Society. Christian Amatore (Academy of Sciences of France) and Anatoliy Popov (National Academy of Sciences of Ukraine) were Chairmen of the International Scientific Committee and the International Organizing Committee, respectively. Professors Yuriy Kholin and Valentin Lebed (Kharkiv National University) headed the Local Organizing Committee and the Program Committee.

The aim of the Conference was to review the physicochemical foundations of modern materials science and technology. At the same time, the event offered opportunities for Ukrainian physical chemists to strengthen international ties and collaboration, and to evaluate the status of modern physical chemistry in Ukraine against global criteria. A total of 170 active delegates from 23 countries participated in the scientific program, which provided a showcase for the achievements, both of internationally recognized experts and enthusiastic young researchers, all of whom contributed constructively to lively scientific discussions.

The Conference was dedicated to the centenary of the birth of the outstanding physicochemist Prof. Nikolai Izmailov (1907–1961). On 26 June, just before the opening of the Conference, the book *Scientific Heritage of N. A. Izmailov and Topical Problems of Physical Chemistry* was ceremonially presented to the academic community and the media in the Kharkiv National University Museum.

The majority of the 19 plenary lectures were devoted to nanoscience, supramolecular chemistry, self-assembled systems, and organized solutions. The papers collected in this issue are arranged in order of their presentation during the scientific proceedings; lectures on chromatography, delivered by Profs. V. P. Georgiyevskiy (Ukraine), V. G. Berezkin (Russia), and E. Tyihák (Hungary), will be published in the *Journal of Planar Chromatography* and in other journals. The program also included 46 keynote and oral presentations and 120 posters, which were distributed among symposia devoted to the following topics: chromatography, materials science, solution chemistry, theoretical chemistry, electrochemistry, kinetics and catalysis, and photochemistry.

The social program included a classical music concert, welcome party, conference reception, visit to the Museum of Arts, bus excursion to the museum of the great Russian painter Il'ya Repin in Chuguev, and numerous local activities. On 25 June, an all-day excursion to the typical Ukrainian city Poltava provided an opportunity to visit the famous battlefield where the army of Tsar Peter I of Russia achieved a decisive victory over the invading forces of King Charles XII of Sweden in 1709.

Nikolay Mchedlov-Petrosyan
Conference Editor