

Preface

In 2005 at the centennial anniversary of Fudan University, Shanghai, China, a new conference venue began [1]. This venue, the International Conference on Novel Materials and Synthesis (NMS) together with the International Symposium on Fine Chemistry and Functional Polymers (FCFP), is targeted to provide high-level academic exchange for both local and international chemists, materialists, physicists, engineers, and technologists in the fields of materials and synthesis.

The year 2011 was the International Year of Chemistry, and it is well known that chemistry is an essential creative science for the sustainable development of humankind. As a result, the joint NMS-VII/FCFP-XXI event (www.nms-iupac.org), held in Shanghai, China, 16–21 October 2011, was more important than ever. The Conference received much support from IUPAC, The National Natural Science Foundation of China, Shanghai Key Laboratory of Molecular Catalysis and Innovative Materials, the Science and Technology Commission of the Shanghai Municipality, and the National Basic Research Program of China (2007CB209700), and was carried out under the auspices of IUPAC.

The Conference was attended by 430 participants from 40 countries and areas. The scientific program comprised 10 plenary lectures, 56 keynote lectures, 206 invited lectures, and 94 posters. Detailed, active, and lively discussions were covered by the following themes:

- innovative chiral and achiral compounds;
- innovative bio- and biobased materials and composites;
- innovative polymers such as conducting, semiconducting ones, supramolecular (supermolecular, dynamers);
- innovative energy systems including fuel cells, solar cells, lithium batteries, and supercapacitors;
- innovative nanomaterials such as 1D, 2D, and 3D nanomaterials;
- new ceramic materials such as superconductors, electronic, diaelectric, ferroelectric, piezoelectric, optoelectric, and magnetic materials;
- new metallic materials including alloys;
- other novel materials including drugs, perfumes, agricultural chemicals, and photosensitive materials, displaying materials and fine ceramics; and
- neutron scattering and its application in fundamental and applied research on new materials.

The program served to emphasize that novel materials and their preparation are dynamic research areas that are attracting growing interest from researchers, engineers, industries, and policy-makers. Furthermore, novel materials continue to find applications that serve the needs and interests of producers and consumers. A selection of 13 papers based on specially invited presentations at NMS-VII/FCFP-XXI is published in this issue to demonstrate the quality and scope of the themes of this Conference.

During the Conference, the role and contributions of this high-level academic platform to novel materials and their synthesis are well realized by the participants, sponsors, and exhibitors. In addition, the organization committee established the Distinguished Award 2011 for Novel Materials and their Synthesis along with IUPAC; Prof. Guoxiu Wang (Australia), Dr. Dr. Fusayoshi Masuda (Japan), Prof. Dr. André-Jean Attias (France), and Prof. Bao-Lian Su (Belgium) received the award for their excellent work. The IUPAC Prof. Jiang Novel Materials Youth Prize was awarded to two winners, Prof. Zhibo Li (China) and Dr. Jr-Hau He (Taiwan, China), for the first time. This will next be awarded in 2013. Three winners for the IUPAC Poster Prize were also awarded.

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Conference Editors

[1] Y. P. Wu. *Pure Appl. Chem.* **78** (10), iii (2006).