

## Preface

The 17<sup>th</sup> International Conference on Physical Organic Chemistry (ICPOC-17) is the latest event in a regular IUPAC-sponsored series, and took place in Shanghai, China on 15–20 August 2004 under the local auspices of the Chinese Academy of Sciences and the Chinese Chemical Society.

About 200 delegates attended ICPOC-17 from 21 countries, to participate in a scientific program comprising 14 plenary and 17 invited lectures, 41 contributed lectures, and 53 posters. The ongoing importance of the conference theme is reflected in a range of topics that serve to underpin fundamental principles of the subject, whilst also addressing new and evolving challenges posed by the growing interdisciplinary interfaces. This interdependence is exemplified by the centrality of mechanistic insight in modern synthesis, the interpretive and predictive power of theoretical studies, and the indispensable role of physical organic principles in studies of organized matter and biological systems, all of which featured prominently in the program.

Proceedings of this series of conferences are traditionally published in *Pure and Applied Chemistry*, and it is pleasing to introduce a representative selection of outstanding works based upon plenary lectures delivered at ICPOC-17. Mechanistic studies form the subject of papers by H. Mayr (Ludwig-Maximilians University, Munich, Germany), V. D. Parker (Utah State University, Logan, UT, USA), and M. Eckert-Maksic (Rudjer Boskovic Institute, Zagreb, Croatia), whilst those of F. Diederich (ETH, Zurich, Switzerland) and C. J. Easton (Australian National University, Canberra, Australia) address fundamental aspects of materials sciences. Biological themes feature in works by F. M. Menger (Emory University, Atlanta, GA, USA), Zhong-Li Liu (Lanzhou University, China), and A. Pross (Ben Gurion University of the Negev, Beer Sheva, Israel).

Collectively, these papers exemplify the vigor and topicality of the overall scientific proceedings of ICPOC-17, and convey something of the diversity of themes that characterize current and future challenges in physical organic chemistry. This important forum will reconvene in Warsaw on 20–25 August 2006 for the 18<sup>th</sup> International Conference on Physical Organic Chemistry (ICPOC-18), and it is confidently expected that this record will serve the needs of practicing scientists, and offer inspiration and insight for future advances that may be reported on that occasion.

**Min-Bo Chen**  
Conference Editor