Foreword

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The Pacific Basin Conference on Adsorption Science and Technology (PBAST) is held once every three years in one of the Pacific basin countries. The past events were held in 1997 in Japan (chair: Katsumi Kaneko), 2000 in Australia (Duong D. Do), 2003 in South Korea (Chang-Ha Lee) and 2006 in China (Li Zhou). The fifth edition of the conference, PBAST 5, was organized at the Nanyang Technological University campus in Singapore between May 25–27, 2009.

The key objective of the PBAST5 was to provide opportunities for academics, students and industrialists, particularly from the Asia Pacific region, to interact, exchange ideas, discuss current developments and chart possible collaborations. Through these close interactions, PBAST aimed to bring the participants up to date with latest technological trends in adsorption science and related areas. The conference also aimed to provide students with the opportunity to meet leading academics and practitioners.

PBAST5 was organized during testing times. The world economy was reeling from a recession and international air travel was at an ebb owing to the spread of the H1N1 virus. However, the conference saw a healthy attendance of about 90 delegates from Asia, Australia, Europe, North America and South America. The conference hosted in a relaxed atmosphere at the School of Arts design and media, NTU. attracted 57 oral presentations including 6 plenary and 3 keynote lectures and 25 posters. This keynote lectures were:

- Douglas M. Ruthven, University of Maine, USA—Past progress and future challenges in adsorption science and technology.

- Marco Mazzotti, ETH Zurich, Switzerland—The role of adsorption in CO₂ capture and storage systems.
- Li Zhou, Tianjin University, China—Challenges and opportunities in high-pressure adsorption.

The conference program highlighted the directions in which the science of adsorption is moving towards, particularly in the development of novel materials and the use of molecular level simulations to understand fundamentals. Classical strongholds of adsorption technology, namely gas and liquid separations, are finding renewed interests with applications in the environmental and pharmaceutical domains. The conference highlighted a unique aspect of our community, active contributions from both industry and academia, with a significant number of graduate students presenting and participating in the proceedings. This points to the fact there are fundamental challenges that have to be addressed and the technology provides possibilities to significantly impact the society.

We are grateful to the members of the international scientific committee for reviewing abstracts, students and colleagues who spent long hours in making sure things went according to plan, sponsors (<http://www3.ntu.edu.sg/pbast/>) who contributed at a time when the economy was not doing well and NTU for providing the venue for the conference. This year we moved away from the traditional publication of the conference proceeding to a special edition of Adsorption containing peer-reviewed full-papers of presentations made during the conference. For this, we thank the authors who decided to submit their papers, reviewers who offered critical reviews, Ms. Jeyel Tecson, at Springer and Kent Knaebel for his assistance with the editorial process.

Anthony S. Chiang will chair the next edition, PBAST6, which is to be held in Taiwan in 2012.

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