

Preface

The 18th International Symposium on Plasma Chemistry (ISPC-18) was held at Kyoto University in Kyoto, Japan from 26 to 31 August 2007 under the sponsorship of the International Union of Pure and Applied Chemistry (IUPAC) and the International Plasma Chemistry Society (IPCS). This is the second time that ISPC was held in Japan since ISPC-8 (Tokyo, 1987), and it was cosponsored by the 153rd Committee on Plasma Materials Science of Japan Society for Promotion of Science (JSPS), the Japan Society of Applied Physics (JSAP), the Graduate School of Engineering at Kyoto University, the Kyoto Nanotechnology Cluster (Kyo-NANO), and the Research Institute for Applied Science (RIAS). Prior to the symposium the IUPAC Summer School on Plasma Chemistry was held from 23 to 25 August, and the Industrial Workshop on Plasma Chemistry followed the symposium on the afternoon of the last day.

ISPC is a biennial international conference with topics encompassing the whole area of plasma chemistry and plasma processing science from fundamentals to applications. There were 671 participants from 40 countries including 189 students. The topics covered the frontiers of nanotechnologies and biomedical and environmental applications as well as the traditional areas of plasma sources, diagnostics, modeling, and material syntheses. The symposium contained four plenary lectures, 21 topical invited talks, 179 oral presentations, and 547 poster presentations in the 14 categorized scientific topics. The industrial workshop consisted of 6 presentations and a panel discussion intended to focus on recycling technology for environmental issues.

The large number of high-quality contributed papers reflects the continuously growing interest of researchers in the areas of plasma chemistry. This issue of *Pure and Applied Chemistry* contains 13 papers based on the plenary lectures and topical invited talks presented at ISPC-18. I sincerely hope that this issue provides readers an overview of current and future scientific and industrial developments in plasma chemistry.

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