Preface

The 17th International Symposium on Plasma Chemistry (ISPC 17) was held in Toronto, Ontario, Canada from 7–12 August 2005. ISPC 17 is sponsored by the International Union of Pure and Applied Chemistry (IUPAC) and the International Plasma Chemistry Society (IPCS). This is the second time that the ISPC was held in Canada (ISPC 6, Montreal, Quebec, 1983). Two short courses with 60 participants in low- and high-pressure plasma processing were offered prior to the start of the symposium (4–6 August 2005). A one-day industrial workshop with 63 participants was also held on 7 August 2005.

ISPC is the main symposium on partially ionized gases and plasma processing science. During ISPC 17, 560 researchers, including 183 students, from 48 countries presented their latest discoveries in this field. 540 contributed papers, 5 plenary and 18 invited abstracts covering 15 topics in plasma processing science were presented during the symposium. All submitted abstracts were reviewed by the International Organizing Committee. The complete text of the papers was provided on a searchable CD. The high number of contributed papers and the high level of registration in both the industrial workshop as well as the short courses reflect the continued support and interest of researchers in plasma processing science community in this bi-annual event.

The invited plenary and topical lectures, selected by the International Organizing Committee, are representative of the great progress in the different areas of plasma chemistry. This issue of *Pure and Applied Chemistry* offers an overview on the recent advances in high- and low-pressure plasmas as well as on more specific developments in plasma processing science. These topics were presented at the ISPC 17 by plenary and topical invited speakers.

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