

## Preface

Green chemistry occupies a research frontier that is the subject of much current research activity. Although it is not a new branch of chemistry, it demands distinctive thought processes about existing and new chemistry tools, as well as knowledge and creative design of those chemical principles that can contribute toward societal growth whilst protecting the environment and human health. To achieve these ends, it is necessary to create more awareness in the lay public, and to ensure that teachers and students at all levels of education become familiar with the basic concepts and their beneficial outcomes. In this respect, developing countries still have much to do in order to achieve higher levels of awareness of and participation in a greener vision.

The IUPAC-sponsored Second International Symposium on Green/Sustainable Chemistry, held in Delhi on 10–13 January 2006, contributed successfully to promoting international awareness of green chemistry. Almost 550 delegates attended from 22 countries and participated in deliberations on recent advances in the trend toward more environmentally friendly practice of chemistry. In addition to a program of 8 plenary lectures and three-way parallel sessions for 31 main and 44 invited lectures by eminent scientists, upcoming doctoral candidates and postdoctoral fellows gave 33 oral presentations on their contributions to future developments in green chemistry. The poster presentations showcased up-to-date research on a range of topics including synthesis of bioactive compounds, green edges of physical chemistry including computational methods, and the use of biomaterials, nanotechnology, biomimetic processes, microwave technology, and ionic liquids, amongst others. The subject of methodological industrialization attracted much interest and served as a source of information and inspiration to representatives from no less than 28 chemical and pharmaceutical companies.

The Symposium has contributed to the growing recognition that government, industry, and the academic sector need to cooperate closely, in order to achieve and promote the cause of green chemistry and its beneficial consequences throughout the world. The challenge for the chemistry community is to recognize the need and pursue research that engages environmentally friendly challenges and outcomes. Chemistry provides many of the tools that enable us to understand and influence the environment, and has the potential to be a decisive factor in securing an environmentally acceptable future for humankind. At the practical level, each advance through development of a safe process or a safe product contributes to that future. Much has already been achieved, but a great deal more remains to be done. The publication of this collection of papers, based upon a selection of lectures of the Symposium, provides an overview of some of the chemistry through which clean, eco-friendly, and less wasteful manufacturing processes for sustainable development is increasingly being realized.

The International Organizing Committee contributed to shaping the program for this important event in the international calendar of green chemistry activities. Thanks are due to the Local Organizing Committee for the efficiency and excellence of the arrangements and for the gracious hospitality extended to all participants. On behalf of the organizers, I am grateful to those who contributed their research work to this issue and for the support from Dr. John W. Jost, IUPAC Executive Director.

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Symposium Chairman