Preface

The 14th International Symposium on Solubility Phenomena and Related Equilibrium Processes (ISSP-14) was held at the Montanuniversität, Leoben, Austria, on 25–30 July 2010, co-chaired by Profs. Helmut Antrekowitsch and Heinz Gamsjäger. As part of the scientific program, a workshop on chemical modeling including kinetic effects was held over several days. The Symposium attracted scientists from all continents, save South America. Speakers at the Symposium covered an astonishing range of topics concerned with solubility phenomena in their widest sense. Oral presentations spanned the fields of analytical chemistry, physical chemistry, and modeling of aqueous and nonaqueous solutions, supersaturation, environmental chemistry, ecotoxicology, ionic liquids, solid solutions and phase relationships, and metallurgy. Aside from oral presentations, two lively poster sessions attracted some 43 presentations, also ranging across the above-mentioned topics.

This volume of *Pure and Applied Chemistry* presents papers based on eight of the key lectures and one of the invited oral presentations at the Symposium. Subjects include the applications, experimental data and theory of the chemistry of salts in aqueous solutions, computational thermochemistry, impurities and calcium sulfate hydrates in hydrometallurgical processes, kinetics of diffusive phase transformations, environmental remediation, free energy minimization methods, supersaturation and phase transformations, and melt corrosion of refractories. These papers offer a glimpse of current research activity in diverse practical and applied aspects of solution chemistry and provide an up-to-date commentary on them.

The Organizing Committee is delighted that these papers have been gathered together in one volume and thanks the International Union of Pure and Applied Chemistry for its continuing support in bringing the above-mentioned topics to the attention of the wider scientific community.

> Peter A. Williams Conference Editor