

Preface

Following the First and the Second International Symposia on Niobium Compounds which were held in Tokyo, Japan, in 1993 and 1995, respectively, the third event of the series was held in Rio de Janeiro, Brazil, from 22 to 23 March 1999.

In order to enlarge the focus of the symposium idealized by Professor Kozo Tanabe, the third symposium dealt not only with niobium compounds but also with the other group five elements, vanadium and tantalum. For this reason, the name of the symposium was changed from International Symposium on Niobium Compounds to *International Symposium on Group Five Elements*. More than 90 contributions from different countries such as Brazil, USA, Argentina, Portugal, Spain, France, Romania, Finland, Switzerland, Poland, Germany, Belgium, India, China, Russia and Japan were received. From these, 54 were selected to be presented at the symposium either as oral (22) or poster (32).

Seven plenary lectures were given by Professors J.R.H. Ross (Ireland), I.E. Wachs (USA), S.T. Oyama (USA), E. Lombardo (Argentina), K. Domen (Japan), Dr. J.C. Volta (France) and Dr. T. Ushikubo (Japan). Professor Tanabe was honored for his special contribution and as idealist of this symposium.

The symposium was held under the auspices of the Brazilian Catalysis Society, Brazilian Petroleum Institute, Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Fundação Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Fundação de Amparo à Pesquisa do Rio de Janeiro (FAPERJ), Instituto Militar de Engenharia (IME) and with the financial support from Companhia Brasileira de Mineração e Metalurgia (CBMM) and Nissho Iwai.

We would like to acknowledge the Organizing and Scientific committees, and in particular the International Advisory Board, composed by: K. Tanabe,

Hokkaido University; E.I. Ko, City University, Hong Kong; I.E. Wachs, Lehigh University; K. Domen, Tokyo Institute of Technology; J.R.H. Ross, University of Limerick and L. Guczi, Institute of Isotopes of the Hungarian Academy of Sciences.

During the symposium, research results on promoter and support effects, materials characterization and important industrial applications were enthusiastically discussed either after each presentation or in the poster section. Noteworthy was the improvement attained in the last 3 years in this research field as well as the greater interest in developing new research areas in catalysis and materials. In particular, there was some interesting research which should be of interest for industrial applications in next future.

In this special issue of *Catalysis Today*, 22 contributions are published representing very well what the spirit of the symposium was.

We would like to thank all the contributors to this special issue as well as the colleagues all over the world who acted as referees for the submitted papers. We also hope that the material presented here will stimulate further development of group five elements catalysis, and in particular niobium compounds.

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