

Preface

International Symposium on Acid–Base Catalysis IV (ABC IV), Matsuyama, Japan, 7–12 May 2001

Solid acid catalysts play a dominant role in industrial chemical processes. Solid bases, in particular, acid–base bifunctional catalysts gained more and more importance in the commercialization of chemical processes over recent years. One reason is that the development of solid acid–base catalysis has a major input on environmentally benign production of petrochemicals, intermediate products and fine chemicals.

ABC IV took place in the Community Center of Matsuyama, the capital of Ehime Prefecture in Shikoku Island, Japan, during 7–12 May 2001. The symposium was dedicated to the 75th birthday of Prof. Kozo Tanabe. The meeting followed the idea of the past international symposia held at Lyon in 1984, at Sapporo in 1988 and 1993, and at Rolduc near Aachen in 1998. The aim of these conferences is to promote basic and applied research as well as industrial application of acid, base and acid–base bifunctional catalysis.

Almost 150 researchers (1/3 industrial) from 16 countries participated in this conference. Nearly 60% of the participants came from Japan, the others mainly from western Europe (20%) and Asia (China, Korea, India, 18%). Ten invited lectures, 18 oral papers and 84 posters were presented. Most of the invited lectures gave overviews of the state-of-the-art in the chosen topic. With respect to the scientific aspects, contributions mainly related to acid catalysis were presented, but one-third of them considered base or acid–base bifunctional catalysis (approximately 50:50).

In the field of acid catalysis strong emphasis was put on zirconia catalysts such as sulphated ZrO_2 (14 papers) and molybdenum/tungsten oxide containing ZrO_2 (six papers) as well as zeolitic systems (29 papers). Also a few papers related to relatively new acid catalysts such as ionic liquids and nafion

containing materials have been presented. Two brand new commercialized processes have been introduced, i.e. the vapour phase Beckmann rearrangement-process of Sumitomo Chemical Co., and the PTMG process of Mitsubishi Chemical Co. The presented volume contains nine invited and 10 oral presentations. The content covers a wide range of aspects on acid–base catalysis.

During the symposium, a high response was obtained from the participants to continue this symposium in the future. Therefore, it has been decided to organize the symposium as a series which will take place in the west coast of USA in 2005 as ABC V.

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