

# Preface

This volume of Catalysis Letters contains 32 representative papers of the Fifth Trilateral USA-China-Japan Symposium on Catalysis which was hosted by the

Northwestern University  
Center for Catalysis and Surface Science  
Evanston, IL, USA

130 specialists on catalysis, from both Universities and Industrial Research Labs and mostly from the three countries which together represent roughly a quarter of the present World population, discussed novel result of relevance to the theme:

## *Molecular Interactions in Heterogeneous Catalysis*

in recognition of the fact that research on catalysis at the present time is largely focusing on the understanding of the molecular and atomic events occurring on a catalytic surface.

Four keynote lectures, 22 general lectures and 45 posters were presented in five sessions focusing on metal surfaces, transition metal oxides, solid acids, zeolite catalysts and syngas catalysis.

While it was an important goal of the symposium to provide scientific information on catalytic mechanisms, attention was also directed to the challenges to catalysis research from societal needs. Crucial problems facing the industrialized world, such as the creation of a pollution-free environment or the production of automotive fuels from coal or natural gas, cannot be solved on a national level but will require international effort, in which research on catalysis will require international effort, in which research on catalysis will play an important part.

A speaker from a leading oil company described the future world scenarios of obtaining liquid energy carriers from non-conventional sources, in particular natural gas. An academic researcher from a Japanese University illustrated the state of the art in one key area of environmental catalysis, viz. NO abatement in emission from power plants.

*Preface*

The discussions of these problems and of a multitude of new data on catalytic mechanisms underscored the desirability of having multinational specialist meetings such as this symposium. Professor Xiexian *Guo* from Dalian announced that a sixth Trilateral Symposium on Catalysis will be organized in China in 1993.

Fall 1991

Wolfgang M.H. SACTLER