

## Preface

The aim of the biennial Nordic Symposium on Catalysis is to bring together Nordic scientists working in the field of catalysis. The 11th Nordic Symposium on Catalysis was arranged in Oulu, Finland, on 23–25 May 2004. The focus areas of the Nordic Symposium in 2004 were ‘Catalysis for a Sustainable Future’ and ‘Catalysis in the Nordic Countries’. The 3-day programme included plenary lectures by invited speakers; oral and poster presentations on catalysis in pollution abatement; green chemistry and catalysis; surface science and catalysis; catalyst preparation and improved selectivity; and wood-based materials and catalysis. Symposium also provided an open forum to encourage doctorate students to present their current research findings. In tandem with the academic contributions, the symposium gave companies in the field of catalysis technology an occasion to present and exhibit their products. The chairperson of the Scientific and Organizing Committees was Professor Riitta Keiski from the University of Oulu, Finland. The symposium was generously supported by the Academy of Finland, Fortum Foundation, Marjatta and Eino Kolli’s Foundation, Tauno Tönniö Foundation, University of Oulu, NorNet Northern Environmental Research Network, ECOCAT Oy, Fortum Oil Oy, and Stora Enso Fine Paper.

Science and technology aim at improving human life. It follows that, in order to live in concert with the environment, sustainable practices and enhanced management of the material flows through society are called for. Thus, the development of new technologies for the sustainable production of materials and energy should be imminent. Catalyst scientists and engineers are currently shaping technology and are instrumental in achieving a sustainable future. The paramount objective, therefore, is to raise awareness of the social, economic and environmental facets of sustainability in all aspects of technology.

The purpose of the 11th Nordic Symposium on Catalysis was to present cases where the principles of sustainability have been achieved by application of catalysis. In considering future generations entering into study in the field of catalysis, embracing the principles of sustainability

should continue to be highly relevant. Development in catalytic processes has contributed greatly to improvements in efficiency in raw-material and energy utilization. Attaining environmentally more-benign products and processes by the successful implementation of catalytic innovations is a part of today’s reality.

In industry, examples abound where catalysis has already realized the principles of green chemistry and engineering. New concepts and methodologies as well as new approaches in chemicals use, reactor design and process operations are the driving forces in today’s catalyst research. Catalytic science and technology work for greater efficiency in resources use and waste minimization. Thus, expansion of catalytic technologies that are increasingly sustainable in the long-term requires ongoing innovations.

All the contributions to the 11th Nordic Symposium on Catalysis were supposed to catalyse co-operation within and beyond the field of academia, and our current and future successes will continue to be upheld by young scientists.

The organizers wish to thank the participants and sponsors for making the symposium successful. Special thanks are expressed to the manuscript reviewers, the members of the Guest Editor group, Scientific and Organizing Committees of the Symposium, and especially to Mr. Mika Huuhtanen and Ms. Tiina Laitinen for the invaluable practical help during the Guest Editor work. Some of the 100 presentations of the symposium are presented in this Special Issue of Catalysis Today.

On behalf of the Scientific and Organizing Committees of the 11th Nordic Symposium on Catalysis and the Guest Editors’ group.

Riitta Keiski  
*University of Oulu, Department of Process and  
Environmental Engineering, POB 4300  
FIN-90014 Oulu, Finland*  
Tel.: +358 8 5532348; fax: +358 8 5532369  
E-mail address: [riitta.keiski@oulu.fi](mailto:riitta.keiski@oulu.fi)

Available online 28 December 2004