

Preface

The XVI International Conference on Chemical Reactors (CHEMREACTOR-16) took place on December 1–5, 2003 in Berlin, Germany. The conference was devoted to the fundamental aspects and practical application of the catalytic processes and chemical reactors, as well as to the development of the novel modern technologies.

About 150 researchers from 20 countries participated in the CHEMREACTOR-16 conference. The organizers were the Borskov Institute of Catalysis SB RAS, DECHEMA (Society for Chemical Engineering and Biotechnology, Germany), Russian Scientific and Cultural Center in Berlin, the European Federation on Chemical Technologies. The conference was supported by the Ministry of Education, Science and Technologies of the Russian Federation and the Russian Center of International Scientific and Cultural Cooperation under RF Government.

Scientific program included five plenary lectures:

Valentin N. Parmon

Borskov Institute of Catalysis SB RAS, Russia
New ways of production and utilization of N₂O

Gerhart Eigenberger

Stuttgart University, Germany
Autothermal reactor concepts for the energy-efficient coupling of endo- and exothermic reactions

M. van Sint Annaland, J. Smit, U. Kuerten, S.A.R.K. Deshmukh, J.A.M. Kuipers

University of Twente, The Netherlands
Development and modelling of membrane reactors

Jean-Claud Charpentier

Department of Chemical Engineering/CNRS, France
Four main objectives for the future of chemical and process engineering mainly concerned by the science and technologies of new materials production

Igor V. Koptug

International Tomography Center SB RAS, Russia

NMR imaging: a powerful toolkit for catalytic research

Presented plenary lectures (5), key-note reports (3), oral contributions (55) and posters (45) covered the following subjects:

- Physico-chemical and mathematical bases of processes occurring on catalysts surface.
- Processes in chemical reactors.
- New types of chemical processes and reactors.
- Chemical reactors for solving the fuel and energy production problems.
- Waste detoxication and processing.

Scientific-technical exhibition “Russian Resource-saving and Environmental Protection Technologies” was organized by the Ministry of Education, Science and Technologies of the Russian Federation in the frame of the conference work. Over 60 complete technologies were presented by 18 Russian organizations and companies in a joint exposition. The exhibition demonstrated nonconventional power sources, heat- and energy-saving technologies, purification of wastewater and treatment of off-gases of industrial enterprises, waste-handling methods and methods of radioactive decontamination, monitoring of the environment.

The conference scientific program covered fundamental and applied aspects of the Chemical Engineering Science. The most interesting contributions are presented in the current issue. This issue is devoted to 90-anniversary jubilee of Professor Mikhail Slinko, Honour Chairman and the founder of CHEMREACTOR conferences. He is so far the heart and the most active person of the Organizing Committee, its scientific leader. The organizers hope that he will be in a great help in organization of the next conference, CHEMREACTOR-17, which is planning to be in 2005.

Alexander S. Noskov
Borskov Institute of Catalysis
pr. Akademika Lavrentieva 5, Novosibirsk, Russia
Tel.: +7 3832 306278; fax: +7 3832 306878
E-mail address: noskov@catalysis.nsk.ru