

Foreword

This issue of “*Catalysis in Membrane Reactors*” is based on the papers presented at the Seventh International Conference on *Catalysis in Membrane Reactors* which took place in Cetraro (CS, Italy), on September 11–14, 2005.

Almost 130 participants from 21 countries participated to this conference, where 3 invited lectures, 52 oral papers and 60 posters were presented. In particular, the invited lectures gave overviews of the state-of-the-art about the:

- (a) commercialization of membrane reactor technology (S. Matson);
- (b) relevance of bioreactor technologies for regenerative medicine (A. Bader);
- (c) new developments in zeolite films for reactive and non-reactive applications (J. Santamaria).

The main scope of the meeting was to favour the interdisciplinary approach and the progress of knowledge, in *Catalysis in Membrane Reactors*, through the study of all the phenomena occurring in this field, including: modelling and simulation aspects of both polymeric and inorganic membrane reactors, perovskite and palladium-based membranes, novel hollow fibre membrane reactors, functionalised polymeric membranes, membrane distillation, membrane bioreactors, multiphase bio-catalytic membrane reactors and plasma processed membranes.

Industrial case studies have been addressed to: hydrogen production and power generation, synthesis gas production, optically pure enantiomer production, purification of wastewater, transesterification of soybean oil, removal of dissolved

oxygen from water, hybridization of photo-catalysis and direct synthesis of phenol.

The special issue collects 35 papers selected from 45 submitted for the publication covering a wide range of the topics above shown. They offer an overview on the problems and on the “status of art” in the field of catalytic membrane reactors.

We would like to thank all the reviewers for their availability, for their comments and suggestions that allowed to improve the quality of all the works appearing in the issue. The effort of the Authors in addressing the reviewers’ comments must be also acknowledged.

We hope that this special issue of *Catalysis Today* will stimulate the scientific and technical community for further investigations and applications in this fast growing field.

Acknowledgements for the organization work should be addressed to the local organising committee.

Last but not least, we wish to express our gratitude to the Editor of *Catalysis Today*, who agreed to publish the papers related to this Conference.

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