



Thermodynamics and Kinetics of Membrane and Reactive Mass-Exchange Processes

Guest Editor:

Prof. Dr. Alexander Toikka

Department of Chemical
Thermodynamics and Kinetics,
Institute of Chemistry, St.
Petersburg State University,
Universitetskii Prospekt, 26,
Peterhof, 198504 Saint
Petersburg, Russia

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Message from the Guest Editor

This Special Issue (SI) focuses on thermodynamic analysis and description of peculiarities of membrane processes. Particular attention will be paid to the theoretical description and modeling of mass transfer, taking into account the features of the structure of membrane materials and developing fundamental approaches to the kinetics of membrane processes under various conditions. The SI will include papers related not only to thermodynamic and kinetic problems of membrane separation of liquid and gas mixtures, but also to the results of work in the field of hybrid processes, including the stages of chemical reaction and interphase transfer. New experimental data on these coupled reaction-mass exchange processes should also be accompanied by a theoretical analysis of the new regularities.

Keywords

- Thermodynamics of membrane processes
- Kinetics of membrane processes
- Modeling
- Non-equilibrium thermodynamics
- Polymeric membranes
- Pervaporation
- Ultrafiltration
- Gas permeation
- Reactive mass-exchange processes
- Coupled processes
- Theoretical analysis





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Prof. Dr. Spas D. Kolev

School of Chemistry, The
University of Melbourne,
Melbourne, VIC 3010, Australia

Message from the Editor-in-Chief

You are cordially invited to contribute a research article or a comprehensive review for consideration and publication in *Membranes* (ISSN 2077-0375).

Membranes is an international, peer-reviewed open access journal of membrane technology published monthly online by MDPI. The journal covers the broad aspects of the science and technology of both biological and non-biological membranes, including membrane dynamics and the preparation and characterization of membranes and their applications in water, environment, energy, and food industries. Articles contributing to better understanding of transport processes in all types of membranes are also welcome. The scientific community and the general public have unlimited and free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

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Membranes Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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