Special Issue

Modeling and Simulation of Electrochemical and Biological Membranes: From Model Geometries to Real 3D Structures

Message from the Guest Editors

This special issue is devoted to the numerical modelling of membranes across multiple length scales. One of the main goal is to demonstrate the need of model-based design and control strategies as the route for improving the performance, reliability and robustness of the electrochemical membranes. Topics covered in this issue include, but are not limited to:

- mathematical modeling of electrochemical and biological membranes;
- ion-selective membranes used in electrochemical sensors;
- numerical methods;
- experimental verification of the models and
- the inverse problems.

Guest Editors

Prof. Dr. Robert Filipek

Faculty of Materials Science and Ceramics, AGH University of Science and Technology, Al. Mickiewicza 30, 30-059 Krakow, Poland

Prof. Robert S. Eisenberg

1. Dept of Molecular Biophysics & Physiology, Rush University, 1653 W. Congress Parkway, Chicago, IL 60612, USA
2. Dept of Applied Mathematics, Illinois Institute of Technology, Chicago, IL 60616, USA

Deadline for manuscript submissions

closed (20 December 2021)

Membranes

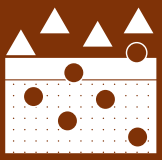
an Open Access Journal by MDPI

Impact Factor 3.6
CiteScore 7.9
Indexed in PubMed

mdpi.com/si/57338

Membranes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
membranes@mdpi.com

mdpi.com/journal/membranes



Membranes

an Open Access Journal by MDPI

Impact Factor 3.6
CiteScore 7.9
Indexed in PubMed

mdpi.com/journal/membranes

About the Journal

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 accessjournal 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.

Editor-in-Chief

Prof. Dr. Spas D. Kolev
School of Chemistry, The University of Melbourne, Melbourne, VIC 3010, Australia

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Polymer Science) / CiteScore - Q1 (Chemical Engineering (miscellaneous))