

Special Issue

Recent Advances in the Membranes for Reverse Electrodialysis

Message from the Guest Editors

Salinity gradient power (SGP) is an emerging renewable energy source with a great energy potential, low power fluctuation, and environmental friendliness. Reverse electrodialysis (RED) is an electrochemical process that generates electrical power by developing membrane potential by selective ion transport through the ion-exchange membrane and generating electrical current with redox reactions. Therefore, ion-exchange membranes have a significant role in improving the power density, energy efficiency, and life-time of RED. Despite the successful development of ion-exchange membranes at a commercial level in recent decades, critical issues remained regarding the maintenance (e.g., anti-fouling and chemical stability), life-cycle assessment, economical and environmental fabrication, and innovative applications in various fields. The ultimate goal of studying the ion-exchange membrane for RED is to further promote RED technology towards sustainable development and carbon emission reduction.

- Ion exchange membrane
- Reverse electrodialysis
- Fouling characterization
- Chemical stability
- Cost-effective and environmental fabrication
- Life cycle assessment

Guest Editors

Dr. Hanki Kim

Dr. Ji-Yeon Choi

Prof. Dr. Seung-Cheol Yang

Deadline for manuscript submissions

closed (30 June 2022)



Membranes

an Open Access Journal
by MDPI

Impact Factor 3.6
CiteScore 7.9
Indexed in PubMed



mdpi.com/si/81760

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

[mdpi.com/journal/
membranes](https://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](https://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 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.

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))