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 remianed regarding the maintanence (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-excchange 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

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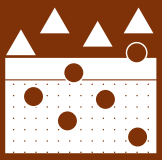

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Message from the Editor-in-Chief

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

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