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Membrane-Based Technologies for Sustainable Water Treatment and Energy Efficiency

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Deadline for manuscript submissions:
closed (31 October 2023)

Message from the Guest Editors

Membrane-based technologies are beginning to play an increasingly important role in addressing the challenges of global water scarcity and pollution. These technologies offer energy-efficient and eco-friendly alternatives for sustainable water treatment and have been the focus of much research and development in recent years. This Special Issue is dedicated to highlighting the latest advancements in membrane-based technologies for sustainable water treatment. One area of particular interest is membrane distillation, which is a promising technique for desalination and wastewater treatment. Another important development is the use of bio-membranes, which are natural or synthetic membranes that are produced by living organisms, for water treatment applications. Moreover, the Special Issue emphasizes innovations in energy-efficient water treatment and recovery using renewable energy-based membrane operations. These techniques not only help to reduce energy consumption and costs but also contribute to the transition towards a more sustainable energy system.



mdpi.com/si/170712

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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 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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