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Energy-Conversion Membranes: From Materials to Applications

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Message from the Guest Editors

Dear Colleagues,

Energy demand continues to rise globally, making the transition to sustainable energy systems, such as sunlight, wind, water, and biomass in order to establish clean energy systems, is of high interest in the current development of sustainable energy. However, the high price and low efficiency of energy conversion limit the development of clean energy. In addressing these challenges, advanced and efficient energy conversion membrane materials are required.

Membrane technology is a promising alternative to energy conversion as it has a lower impact on the environment. Membranes may play a significant role in the transition to a world that is more energy sustainable. Membranes have a wide range of potential uses from the perspective of energy conversion, including their use as electrolytes in membrane-based fuel cells, as separators in lithium batteries, in the production of blue energy through reverse electrodialysis, or in the conversion of thermoelectric and electrokinetic energy, etc.

This Special Issue welcomes research contributions in various aspects related to the design and application of membrane materials and their application in energy conversion.



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Special Issue



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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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