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Advanced Flexible Membranes for Next-Generation Electrochemical Energy Devices

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

High-performance and robust membranes/separators are needed for the variety of electrochemical energy devices (EEDs). Depending on the type of EED, the design attributes and desired characteristics of an ideal membrane will vary. In particular, for next-generation EEDs (e.g., solid-state lithium batteries, metal–air batteries, hybrid flow batteries, and Li–CO_2 batteries), the development of highly conductive, selective, and stable membranes with high mechanical flexibility is of significant importance. Furthermore, some of these EEDs may need to be designed for portable/wearable electronics, which further limits the design domain for such membranes.

Considering the critical role of this class of flexible membranes in enabling next-generation EEDs, this Special Issue is dedicated to the application of these membranes in such devices. We also welcome the submission of recent works on the design and synthesis of novel and mechanically flexible membranes, as well as critical review papers from top and emerging research groups.

Dr. Yasser Ashraf Gandomi
Guest Editor

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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.

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