Special Issue

Solid-State Energy Devices and Electrochemical Performance Research

Message from the Guest Editor

In recent decades, solid-state energy conversion devices, such as fuel cells, batteries, and supercapacitors, have garnered significant attention as sustainable energy sources for both mobile and stationary power applications. To advance these devices, developing their high electrochemical performance (i.e., high gravimetric/volumetric energy density) and enhancing their performance durability are key issues that require to be addressed at the utmost. To this end, researchers are exploring several strategies, including developing new membranes and membrane interfaces, engineering novel membrane fabrication processes, and conducting computational/theoretical studies to understand the underlying mechanisms of electrochemical physics. These efforts can have a profound impact on the development of next-generation energy applications. In light of the above, this Special Issue invites contributors to share their novel research progress that can aid in improving the electrochemical performance of solid-state energy device applications.

Guest Editor

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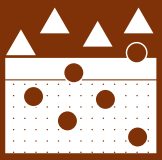

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Message from the Editor-in-Chief

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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