Special Issue

Proton Exchange Membrane Water Electrolysis

Message from the Guest Editors

The greenhouse effect of this century is increasing, and hence, a reduction of carbon dioxide emissions through various methods is the global consensus. Developing green and renewable energy has been the main target until now. However, the major issue of renewable energy is the unstable output of power that is affected by seasonal and environmental factors, which results in electric grid management difficulties. The advantages of proton exchange membrane water electrolysis (PEMWE) for energy storage during off-peak periods are its high current density, high purity gas production (H2 and O2), and compact system. The supply of stored hydrogen and oxygen gas for the fuel cell is used to generate power during the peak-hour period. Additionally, accompanied with a higher operating voltage and proper anode materials, ozone (O3) gas will be generated in addition to oxygen. Ozone is a natural and effecitve disfection gas. The PEMWE technique, which produces three kinds of gases (H2, O2, and O3), will expand the application area from green energy to green technology.

Guest Editors

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Deadline for manuscript submissions

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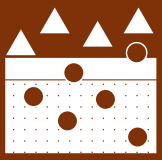

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Message from the Editor-in-Chief

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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