

## Special Issue

# Anion Exchange Membranes for Fuel Cells and Water Electrolysis

### Message from the Guest Editor

Polymer electrolyte membranes may be classified into two types: proton exchange membranes (PEMs) and anion exchange membranes (AEMs). This classification is based on their chemical composition, which facilitates the movement of either cations or anions. Proton exchange membrane (PEM) technologies have outperformed alkaline water electrolyzer/fuel cells in terms of H<sub>2</sub> generation rate, power density, and cell efficiency, making them well suited for large-scale applications.

This Special Issue focuses on the publication of novel original experimental data related to the creation, manufacturing, and examination of polymeric anion exchange materials, including membranes and ionomers. We highly prioritize accepting articles that utilizes novel in situ and operando techniques to understand the polymer degradation mechanism and gas permeability. We are particularly interested in receiving review and perspective papers on AEM water electrolysis and fuel cells that provide a comprehensive assessment of the present state and future prospects of this growing topic.

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### Guest Editor

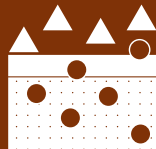
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### Deadline for manuscript submissions

closed (31 January 2025)



## Membranes

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## About the Journal

### 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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### Editor-in-Chief

Prof. Dr. Spas D. Kolev  
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