Special Issue

Design and Applications of COFs/MOFs-Based Membranes

Message from the Guest Editors

With their highly tunable porosity, chemical stability, and exceptional selectivity, COFs and MOFs have emerged as promising materials for next-generation membrane separation technologies. Their applications include liquid separation, gas separation, etc., and they enable researchers to address critical challenges in the fields of energy, environmental sustainability, and industrial processing. This SI provides an excellent opportunity to showcase the latest breakthroughs in COF/MOF-based membrane technology and foster interdisciplinary collaboration among scholars. We welcome original research articles, reviews, and perspectives covering, but not limited to, the following topics: 1. Innovative synthesis and fabrication strategies for COFs/MOF membranes; 2. Structural engineering and functionalization for enhanced performance; 3. New insights into mass transport mechanisms for COF/MOF membranes; 4. The AI-driven screening of COF/MOF membrane applications; 5. Computational studies for rational COF/MOF membrane design.

Guest Editors

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Deadline for manuscript submissions

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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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