

## Special Issue

# Porous-Material-Based Membranes for Molecular Separations

### Message from the Guest Editors

Special Issue focuses on the innovative use of porous materials in membrane technologies for molecular separation processes, encompassing both liquid and gas separations. We aim to highlight groundbreaking advancements in metal–organic frameworks (MOFs), covalent organic frameworks (COFs), molecular organic cages (MOCs), and porous organic cages (POCs), in addition to their integration into advanced membrane systems, such as mixed-matrix membranes (MMMs), thin-film composite (TFC) membranes, 2D lamellar membranes, and polycrystalline membranes. Special Issue will explore a wide range of applications, including organic solvent nanofiltration (OSN), desalination, etc., and gas separation processes, such as carbon capture, hydrogen purification, etc. By showcasing cutting-edge research, the Special Issue aims to foster interdisciplinary collaboration and address current challenges across the fields of both liquid and gas separations. We invite original research articles, comprehensive reviews, and perspectives that provide significant insights into the synthesis, characterization, and practical applications of these advanced membrane technologies.

### Guest Editors

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### Deadline for manuscript submissions

closed (20 March 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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