

## Special Issue

# Recent Advances in Porous Inorganic and Reticulate Matter Membranes for Sustainable Separation

### Message from the Guest Editor

The pursuit of global carbon neutrality, water security, and green chemical processes has created unprecedented demand for advanced materials. Among these materials, porous inorganic membranes—such as those based on ceramics, zeolites, metal–organic frameworks (MOFs), and covalent organic frameworks (COFs)—have emerged as a pivotal technology. Their exceptional thermal and chemical stability, coupled with their precisely tunable pore structures, offers immense potential for use in energy-efficient separation processes. This Special Issue, "Recent Advances in Porous Inorganic and Reticulate Matter Membranes for Sustainable Separation", aims to showcase the latest breakthroughs and cutting-edge research in this dynamic field. We invite submissions of high-quality original research and review articles. The topics of interest include, but are not limited to: Advanced characterization techniques for determining membrane structure and transport properties  
Membrane applications in sustainable gas separation  
Membrane processes for water purification and resource recovery  
Pervaporation and other liquid-phase separation processes  
The theoretical and computational modeling of membrane performance

### Guest Editor

Dr. Yi Liu

State Key Laboratory of Fine Chemicals, Frontiers Science Center for Smart Materials, School of Chemical Engineering, Dalian University of Technology, Dalian 116024, China

### Deadline for manuscript submissions

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## Membranes

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*Membranes*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[membranes@mdpi.com](mailto:membranes@mdpi.com)

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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  
School of Chemistry, The University of Melbourne, Melbourne, VIC  
3010, Australia

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