

an Open Access Journal by MDPI

Mixed Matrix Membranes for Energy and Environmental Applications

Guest Editors:

Dr. Xing Wu

Commonwealth Scientific and Industrial Research Organisation (CSIRO) Manufacturing, Clayton South, Melbourne, VIC 3169, Australia

Dr. Xiaofang Chen

School of Chemistry and Molecular Engineering, East China Normal University, Shanghai 200050, China

Deadline for manuscript submissions:

closed (31 August 2023)

Message from the Guest Editors

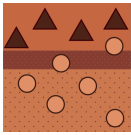
Membrane processes have been widely applied in water treatment and gas separation. As organic–inorganic hybrid membranes, mixed-matrix membranes (MMMs) have the potential to maximize the advantages of both polymeric matrix and inorganic filler, and have attracted increasing interest in desalination, wastewater treatment, hydrogen separation and CO₂ separation. To advance the industrial application of MMMs, scientific gaps in membrane fabrication, configuration, filler development, characterization, mechanism analysis, modeling and the exploration of MMMs in different areas should be filled.

The purpose of this Special Issue, is to focus on recent advancements in MMMs development and application in both water treatment and gas separation. Topics include but are not limited to: novel MMM development, structural adjustment and optimization, novel additive and filler development, upgrade of current MMM fabrication methods and separation processes, characterization techniques, transport and separation mechanisms, membrane fouling mitigation, process modelling and simulation, energy and economic analysis, and the exploration of new application areas.



mdpi.com/si/141352

Special Issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Spas D. Kolev

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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank: JCR - Q2 (*Chemistry, Physical*) / CiteScore - Q2 (*Chemical Engineering (miscellaneous)*)

Contact Us

Membranes Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/membranes
membranes@mdpi.com
[X@Membranes_MDPI](https://x.com/Membranes_MDPI)