



Recent Developments of Ionic Liquid Membranes: Preparation, Stability and Applications

Guest Editors:

Dr. Megawati Zunita

Chemical Engineering Study Program, Faculty of Industrial Technology, Institut Teknologi Bandung, Bandung, Indonesia

Dr. Graecia Lugito

Chemical Engineering Study Program, Faculty of Industrial Technology, Institut Teknologi Bandung, Bandung, Indonesia

Deadline for manuscript submissions:

closed (10 August 2023)

Message from the Guest Editors

The functionalized ILs are regarded as preferable due to their simplicity in regeneration, high absorption capacity, and selectivity for CO₂. Ionic liquid membranes have also shown superior performances in water treatment, dye removal, heavy metal removal, electrochemistry, pharmaceuticals, and biomass conversion processes. In addition, PILMs offer a variety of benefits over ionic liquids (ILs), such as improved mechanical stability, chemical durability, spatial controllability, and processability.

This Special Issue welcomes discussions on the use and development of innovative ionic liquid and polyionic liquid membranes on a pilot and laboratory scale, as well as their industrial exploitation and the sustainability approach used in their preparation. The most recent advancements in the use of ionic liquid membranes (ILMs) for CO₂ capture and water treatments, as well as dye and heavy metal removals, are cordially invited for submission to this Special Issue, including supported ILMs (SILMs), poly-ILMs (PILMs), polymer-IL composite membranes, and mixed-matrix membranes, with a focus on ILM contactors.





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)