Special Issue

Next-Generation Desalination Membrane: Opportunities and Challenges

Message from the Guest Editors

Membrane-based desalination technologies play a tremendous role in freshwater production and chemical separation. Over the years, the performance of current desalination membranes based on thin-film composites and polyamide chemistry has been optimised for higher water production rate, solute retention, fouling resistance, and stability. More recent breakthroughs in desalination performance have also been found based on emerging technologies, especially in material development and processing. This Special Issue welcomes submissions on original research and technological developments in membrane desalination including innovations in membrane design, material development and desalination process design. Related topics include, but are not limited to, carbon-based membranes, biomimetic membranes, two-dimensional membranes, ultra-high-pressure reverse osmosis, nanofiltration, electromembrane, ion–ion separation, resource recovery, energy recovery, renewable-energy-based desalination.

- Desalination
- Novel materials
- Membrane fabrication
- Reverse osmosis
- Electromembrane
- Two-dimensional membranes
- Biomimetic membranes
- Carbon-based membranes.

Guest Editors

Dr. Nicholas Low

1. 2D Water Pty Ltd., Mulgrave VIC 3170, Australia
2. Department of Chemical Engineering, Monash University, Clayton, VIC 3800, Australia

Dr. Amir Razmjou

Centre for Technology in Water and Wastewater, University of Technology Sydney, Ultimo, NSW 2007, Australia

Deadline for manuscript submissions

closed (31 December 2021)

Membranes

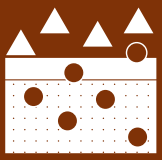
an Open Access Journal by MDPI

Impact Factor 3.6
CiteScore 7.9
Indexed in PubMed

mdpi.com/si/88670

Membranes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
membranes@mdpi.com

mdpi.com/journal/membranes



Membranes

an Open Access Journal by MDPI

Impact Factor 3.6
CiteScore 7.9
Indexed in PubMed

mdpi.com/journal/membranes

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 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

Prof. Dr. Spas D. Kolev
School of Chemistry, The University of Melbourne, Melbourne, VIC 3010, Australia

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 (Polymer Science) / CiteScore - Q1 (Chemical Engineering (miscellaneous))