

## Special Issue

# Preparation and Properties of Pervaporation Composite Membranes

### Message from the Guest Editor

Pervaporation (PV) has emerged as a crucial technology for selectively concentrating and removing salts or organic compounds from water, providing a promising solution for the treatment of high-salinity brine and refractory organic wastewater. PV is a membrane-based separation process that employs the solution-diffusion mechanism to achieve selective separation. This process is less influenced by salt concentration compared to the widely used reverse osmosis (RO) process, making it capable of concentrating highly saline water, even near saturation levels. Furthermore, PV can efficiently utilize renewable energy sources such as solar/thermal energy or waste heat, thus reducing energy requirements and offering a low-energy-consumption alternative. As such, PV represents an eco-friendly and viable process for high-salinity water treatment, standing out against conventional brine treatment methods. Research and future applications of PV for high-salinity brine concentration hold significant importance in areas such as water resource recovery and utilization, salt production, environmental protection, and beyond.

### Guest Editor

Dr. Rui Zhang

College of Chemical Engineering, Beijing University of Chemical Technology, Beijing 100029, China

### Deadline for manuscript submissions

closed (15 July 2025)



## Membranes

an Open Access Journal  
by MDPI

Impact Factor 3.6  
CiteScore 7.9  
Indexed in PubMed



[mdpi.com/si/213056](https://mdpi.com/si/213056)

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

[mdpi.com/journal/  
membranes](https://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](https://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 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.

---

### 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))