Special Issue

Manufacture and Functionalization Modification of Membranes for Separation

Message from the Guest Editors

Membrane-based separation technologies have emerged as promising solutions with wide applications, ranging from water and wastewater treatment to gas separation, solvent recovery, and biomedical purification. However, challenges such as fouling resistance, selectivity enhancement, permeability, and long-term durability continue to hinder their performance and scalability.

In this Special Issue, we aim to gather cutting-edge research and insightful reviews that advance the design, synthesis, fabrication, and functionalization modification of membranes with enhanced separation properties. The focus is on bridging the gap between material innovation and functional performance, with special attention to the integration of novel surface chemistry, structural engineering, and emerging fabrication methods.

Topics of Interest: Advanced manufacturing techniques for membranes; Functionalization strategies to improve selectivity, anti-fouling, or permeability; Membranes for water treatment, gas separation, organic solvent nanofiltration (OSN), and biomedical applications; Green and sustainable membrane fabrication material; Case studies on scaling-up and real applications

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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
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