

Special Issue

Recent Developments in Membrane Technologies for Efficient Gas Separation: Innovations and Applications

Message from the Guest Editors

The increasing global demand for clean energy and environmental protection has accelerated the development of membrane-based gas separation technologies. This Special Issue, “Recent Developments in Membrane Technologies for Efficient Gas Separation: Innovations and Applications”, will highlight recent breakthroughs in the study of membrane materials, fabrication methods, and separation mechanisms that improve permeability, selectivity, and stability in gas separation applications. Both original research articles and reviews are welcome. Topics of interest may include (but are not limited to) novel polymeric and inorganic membranes, mixed-matrix and hybrid systems, facilitated transport membranes, and membranes for specific separation procedures such as CO₂ capture, H₂ purification, olefin/paraffin separation, and air separation. We invite researchers, engineers, and industrial practitioners to share their latest experimental findings and theoretical research results via contributing to this Special Issue.

Guest Editors

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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
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