

Special Issue

Recent Advances in 2D Material-Based Membranes

Message from the Guest Editors

Two-dimensional (2D) materials have attracted significant attention in recent years due to their unique properties, such as their high surface area, tunable electronic and optical properties, and strong mechanical strength. Some of the potential challenges include the synthesis of large-area, defect-free 2D materials and the development of methods to functionalize these materials for specific applications. However, the potential benefits are also great, and 2D material-based membranes could have a significant impact on a wide range of applications, including energy storage, catalysis, electronics, and biotechnology. This Special Issue aims to collect experimental and theoretical investigations on the fundamentals and applications of these materials. Authors are invited to present their recent results, and both original papers and reviews are welcome. Research areas that may be of interest in this Special Issue include the synthesis, characterization, and modeling of graphenic, semiconducting, insulating, magnetic, or optical materials. Two-dimensional materials that have been decorated or modified by low-dimensional particles are also of interest.

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

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