Special Issue

Carbon-Nanomaterial-Based Membranes: Fabrication, Characterization, and Application

Message from the Guest Editors

Carbon nanomaterials (e.g., carbon nanotubes (CNTs), graphene, graphene oxide (GO), and carbon quantum dots (CQDs)) have been recognized for their exceptional electrical, thermal, and physical properties, as well as for their ability to impart these properties to the enhancement of membranes. Such nanocomposite membranes have gained attention for their synergistic absorptive, reactive, catalytic, electrochemical, and/or conductive properties, which are imparted by carbon nanomaterials, thereby enabling a wide array of engineered applications such as electrified water treatment, membrane catalysis, desalination, gas separation, sensing, energy storage, biomedical applications, and process intensification. The focus of research has been on increasing membrane selectivity, fortifying membrane mechanical durability, mitigating fouling, enhancing (electro)catalytic performance, and reducing costs for scale-up and bulk manufacturing. Moreover, the chemistry and materials implemented for the synthesis of carbon-nanomaterial-based composite membranes have been improved for surface modification, bulk modification, and thin film deposition.

Guest Editors

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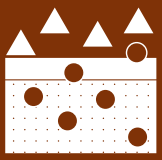

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Message from the Editor-in-Chief

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

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