

Special Issue

Sustainable Development and Applications in Membrane Technology

Message from the Guest Editors

Membrane technology is a key driver of sustainable development, offering transformative solutions to environmental, industrial, and societal challenges. This Special Issue explores advances in membrane technology, emphasizing its role in achieving sustainable development goals through innovative materials, processes, and systems. Key topics include gas separation for carbon capture, hydrogen purification, and methane recovery; resource recovery via desalination, wastewater reuse, and extraction of valuable compounds; and greener fabrication techniques enhancing selectivity, permeability, and fouling resistance. Sustainable membrane processes, hybrid systems, and renewable energy integration are also highlighted to minimize environmental impacts. This Special Issue bridges research and practical applications, presenting trends like nanotechnology-enabled membranes and integrated systems. It aims to provide actionable insights for socio-economically viable, environmentally sustainable solutions, reinforcing the pivotal role of membrane technology in building a resilient future.

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

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