

Special Issue

Membrane Separation Technology for Water Treatment

Message from the Guest Editors

Our Special Issue is focused on recent developments in the technology involved in water treatment, particularly membrane separation. Membrane separation technologies, including reverse osmosis, nanofiltration, ultrafiltration, and forward osmosis, are increasingly recognized for their ability to achieve high-efficiency separation with minimal environmental impact. This Special Issue explores cutting-edge developments in membrane materials, such as hybrid membranes, polymer-inorganic composites, and biomimetic designs, which enhance selectivity, permeability, and fouling resistance. Special attention is given to electro-enhanced and energy-efficient membrane processes. Key themes include the role of membranes in addressing industrial wastewater, brine management, and municipal water reuse, alongside strategies to improve cost-effectiveness and scalability. Case studies from global applications highlight the transition from conventional treatment methods to membrane-based systems, emphasizing their role in achieving sustainable water management.

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About the Journal

Message from the Editor-in-Chief

Separations offers the scientific community a high-quality, open-access journal option with rapid time-to-publication without any sacrifice of a rigorous peer-review process. We invite contributions ranging from fundamental characterization and instrumentation development through application of techniques to shed light on a broad spectrum of separation science needs. Since inception, *Separations*, has become unique in its combination of rapid publication and thorough scientific content. We invite you to consider us for your next contribution.

Editor-in-Chief

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