Membrane Horizons
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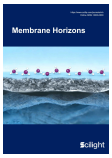

Editorial

Introducing *Membrane Horizons*—Charting the Future of Membrane Science and Separation Technologies

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It is with great enthusiasm that we announce the launch of *Membrane Horizons* (*MH*), a new international, peer-reviewed, open-access quarterly journal dedicated to advancing and disseminating high-impact research across the entire spectrum of membrane science and separation technologies. The inaugural issue is scheduled for January 2026.

Membrane processes stand at the forefront of addressing global challenges in water purification, clean energy, environmental protection, healthcare, and sustainable manufacturing. The field has evolved dramatically from its foundations in traditional polymeric and ceramic membranes to encompass a dazzling array of advanced materials—including emerging two-dimensional (2D) materials, mixed-matrix composites, biomimetic structures, and stimuli-responsive systems—and increasingly intelligent, process-integrated solutions.

Yet, as the community strives for higher performance and novel applications, a critical gap often remains between groundbreaking academic discovery and scalable, durable, industrially relevant technology. True progress requires not only material innovation but also deep understanding of transport mechanisms, inventive fabrication strategies, robust module design, system integration, and smart process control.

Membrane Horizons is founded on the principle that the next era of membrane technology will be defined by convergence: the integration of materials science, process engineering, data-driven intelligence, and cross-disciplinary insight. Our mission is to provide a dynamic, forward-looking platform for research that pushes conceptual boundaries, bridges disciplines, and accelerates the translation of scientific vision into sustainable, efficient, and transformative separation solutions for society.

Journal Scope and Vision

Membrane Horizons welcomes contributions across all domains of membrane science and engineering, including but not limited to:

1. New Application Frontiers of Membrane Separation
   - Resource-oriented separations in biorefineries, mining, energy storage, and circular economy systems
   - Membranes for carbon management, clean energy, advanced pharmaceuticals, food systems and extreme environments
   - Membrane processes for removal of emerging contaminants, water treatment and desalination
   - Novel niche and emerging scenarios where membrane technologies replace or surpass conventional processes
   - Next-generation hybrid, synergistic, or multifunctional platforms for intensified separation
2. Advanced and Functional Membrane Materials
   - Bio-based membranes, polymeric membranes, stimuli-responsive membranes, catalytic and reactive membranes
   - Hierarchically structured, nano-engineered, and hybrid/COF/MOF-integrated selective layers
   - Materials enabling precise molecular recognition, adaptive selectivity, self-healing, or enhanced durability

Editors-in-Chief

Membrane Horizons is steered by a distinguished international leadership team:

Professor Alberto Figoli—Director, Institute on Membrane Technology (ITM), National Research Council of Italy (CNR).
Expertise: Membrane preparation and characterization, environmental applications, membrane contactors, pervaporation, and integrated membrane processes.

Professor Jiangnan Shen—Zhejiang University of Technology, China.
Expertise: Advanced functional membrane materials, special separation membranes, membranes for new energy applications.

Their combined expertise ensures the journal's commitment to rigorous peer review, academic quality, and a broad, inclusive vision for the field.

A Call for Contributions

As a new fully open-access journal, MH will waive Article Processing Charges (APCs) during its launch phase. We invite original research articles, comprehensive reviews, insightful perspectives, and short communications from academics, industrial researchers, and engineers worldwide.

All published content will be immediately and freely accessible, ensuring maximum visibility and impact. Articles will benefit from active promotion through international academic networks and media channels.

Join us in defining the horizons of membrane science. Submit your pioneering work today.

Looking Forward

The future of membrane technology hinges on a collaborative ethos that connects chemists, material scientists, chemical and environmental engineers, data scientists, and industry partners. *Membrane Horizons* aims to be the nexus for this collaboration, highlighting work that seamlessly connects molecular design, process innovation, and system implementation.

We extend our sincere gratitude to the global membrane community and our editorial board for their support. We invite you to contribute to and engage with *Membrane Horizons* as we work together to build a premier forum for visionary research—driving the field toward more sustainable, efficient, and intelligent separation solutions for a better world.

Welcome to *Membrane Horizons*.

Conflicts of Interest

The authors declare no conflict of interest.

Use of AI and AI-Assisted Technologies

No AI tools were utilized for this paper.