

## Special Issue

# Hollow Fiber Membranes for Gas and Vapor Separation: Fundamentals, State-of-the-Art, and Recent Advancements

### Message from the Guest Editors

Gas separation by means of hollow fibre membranes (HFMs) is becoming increasingly important for many industrial gas separation processes. HFMs play a key role in gas separation due to their compact modular design, relatively low energy consumption, high process efficiency, high packing density, and small footprint. The increased demand for gas separation processes requires the development of innovative and novel hollow fibre materials that can ensure long-term durability and good resistance under operating conditions, maximizing the efficiency of the separation processes. This Special Issue of *Membranes* aims to provide an overview of the state of the art and the challenges in the preparation, characterization, and modelling of advanced HFMs. This Special Issue is proposed as a collection of articles that focus on HFM materials, their preparation, structure and morphology, properties, and performance from theoretical, experimental, and industrial points of view.

### Guest Editors

Dr. Elisa Esposito

Dr. Johannes Carolus (John) Jansen

Dr. Carmen Rizzuto

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### Deadline for manuscript submissions

closed (31 December 2024)



## Membranes

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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.

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### Editor-in-Chief

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