Special Issue

Mathematical and Computational Modelling in Membrane Separations: From Preparation to Processes

Message from the Guest Editor

In the portfolio of technologies available for green processes and net-zero solutions, membrane separations offer a sustainable alternative to energy-intensive processes. Detailed knowledge of the performance of membrane materials over wide operating ranges is a necessary prerequisite for the design of efficient membrane processes. Mathematical and computational analysis can greatly support membrane material and process design, and can help to compact the lab-to-market cycle of innovative solutions. This Special Issue is dedicated to recent advances in all aspects of modelling in membrane science and engineering, from the rationalisation of manufacturing protocols to tailor end-use performance, to the development of transport models, and to membrane process control and optimisation. Macroscopic, molecular, and data-driven approaches are of interest, as well as multi-scale strategies and novel hybrid methods combining physics-based and data-driven approaches.

Guest Editor

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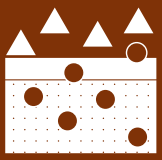

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About the Journal

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 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

Prof. Dr. Spas D. Kolev
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