

Introduction to Membrane Science International

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Received 21 April 2022; Revised 23 April 2022; Accepted 24 April 2022; Published 29 April 2022



Dr. Alberto Figoli is the Editor-in-Chief of Membrane Science International. Dr. Figoli is the Director of the Institute on Membrane Technology of the National Research Council of Italy (ITM-CNR) since March 2019. Dr. Alberto Figoli obtained his Ph.D. degree at Membrane Technology Group, Twente University (Enschede, The Netherlands) in 2001. He graduated in Food Science and Technology at the Agriculture University of Milan in 1996. Since December 2001, he has had a permanent position as a Researcher at Institute on Membrane Technology (ITM-CNR) in Rende (CS), Italy. He is responsible and involved in various National and International projects. He is also responsible, within the ITM-CNR organization, for two research lines on membrane preparation and characterization and on pervaporation (PV) applications. He is the author of more than 260 research papers in peer-reviewed journals and several book chapters; five books, three patents, and many oral presentations (also as an invited and keynote lecturer) in National and International Conferences and Workshops. He is also responsible/participant in several International, European, and National Research Projects.

With great pleasure, I open the first issue of the new Journal “Membrane Science International.” The Journal has an important mission: to report and disseminate the latest research and studies on Membrane Science and Technology.

Membrane Science is growing very fast in different fields thanks to the features of membrane operations which require mild operating conditions, low energy, no phase changes, and no use of chemicals, which is considered to be simple in operation, modular, and easy to be integrated with other technologies and to be scaled up. We know very well that some of the membrane technologies can be considered dominant and are already applied with success in several sectors, such as in energy, water treatment, gas separation, and biomedical applications. Accordingly, it is worth mentioning that Reverse Osmosis, which is the dominant technology in desalination and membrane bioreactors, is considered the best available technology for municipal wastewater and hemodialysis in the biomedical field. Along with this, thanks to the continuous innovation of membrane technologies and the contribution

of all membrane scientists, the application of membrane operations is expected to be extended to other fields, always in the favor of more sustainable development. In fact, some of the emerging membrane technologies, for example, the “family” of membrane contactors (membrane distillation, membrane crystallizers, membrane emulsification, membrane condensers, and membrane dryers), are now becoming more and more consolidated technologies and are applied in different industrial sectors. However, sustainable development is not only related to the membrane processes but also membrane fabrication. In this logic, the use of more sustainable solvents and materials is opening a new Era in membrane fabrication, which is in the direction of the World’s changing needs, toward more sustainable use of the resources and reuse of the waste too. We, as membranologists, have an important mission to push the production system from the use of petroleum-derived products toward the use of new chemicals derived from renewable, recyclable, and biodegradable sources. Undeniably, there is still far to go, but the trail has been blazed.

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I, therefore, invite all membranologists to submit novel articles and contributions to this Journal to expand the reach of the Membrane Science and Technology to both the academic and industrial worlds.

Conflicts of Interest

The author declares that there is no conflicts of interest.

How to Cite

Figoli, A. Introduction to Membrane Science International.
Membrane Sci Int 2022;1(1):1–2.

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