Special Issue

Thermal Performance of Membrane Distillation

Message from the Guest Editor

Membrane distillation (MD) is a thermally driven membrane operation able to theoretically reject 100% of all nonvolatiles contained in aqueous streams. It is based on the evaporation of the feed to be treated at the feed–membrane interface, the migration of the vapor/volatiles through the micropores, and the condensation and recovery of the permeated species at the distillate side. Membranes used are hydrophobic and microporous. This Special Issue focuses on the research efforts made to improve the thermal performance of MD, including the development of new module designs and heat recovery systems, the preparation of new types of membranes, the use of renewable energies, the energy and exergy analyses, and the integration with other membrane units.

Keywords:
- Membrane distillation
- Heat and mass transfer
- Temperature polarization
- Specific thermal energy consumption
- Heat recovery
- New membrane and module designs
- Renewable energies
- Energy and exergy analyses

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2022)

Energies

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Impact Factor 3.0
CiteScore 6.2

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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