



## Development and Challenges of Renewable Energy Technologies for Desalination

Guest Editors:

**Dr. Farzaneh Mahmoudi**

The Commonwealth Scientific  
and Industrial Research  
Organisation | CSIRO, Clayton,  
VIC 3168, Australia

**Prof. Dr. Aliakbar Akbarzadeh**

STEM College, RMIT University,  
124 La Trobe St., Melbourne, VIC  
3000, Australia

Deadline for manuscript  
submissions:

**closed (31 October 2024)**

### Message from the Guest Editors

The scope of desalination technologies encompasses mature and emerging methods, such as reverse osmosis (RO), forward osmosis (FO), membrane distillation (MD), thermal distillation, humidification-dehumidification (H-DH), etc. The water-energy nexus section covers combined water and power production systems, blue energy (e.g., pressure retarded osmosis (PRO), reverse electrodialysis (RED), capacitive mixing (CapMix), thermo-osmotic energy conversion (TOEC)), and other integrated approaches. This Special Issue includes articles on diverse topics, including the modelling and optimisation of renewable energy-driven desalination systems, techno-economic analysis, novel materials and technologies, energy storage for desalination, and environmental impacts.

This Special Issue welcomes contributions that delve into various aspects, including but not limited to:

Solar desalination (including photovoltaic, thermal and solar hybrid);

Wind-powered desalination;

Wave-powered offshore desalination;

Bioenergy-driven desalination;

Hybrid renewable energy systems for desalination;

Water-energy nexus.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Giancarlo Cravotto

Department of Drug Science and  
Technology, University of Turin,  
Via P. Giuria 9, 10125 Turin, Italy

## Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.

**Journal Rank:** CiteScore - Q2 (Chemical Engineering (miscellaneous))

## Contact Us

---

Processes Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/processes](http://mdpi.com/journal/processes)  
[processes@mdpi.com](mailto:processes@mdpi.com)  
[X@Processes\\_MDPI](https://twitter.com/Processes_MDPI)