



Development and Challenges of Renewable Energy Technologies for Desalination

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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.





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Message from the Editor-in-Chief

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