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# Membrane Separation Technology for Water Purification and Power Generation Using Water

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Deadline for manuscript submissions:
**closed (30 April 2024)**

## Message from the Guest Editors

For water purification and power generation using water, membrane separation technologies have gained widespread popularity, due to the advantages of nearly zero emissions, low occupied area and high automation. Microfiltration and ultrafiltration membranes can efficiently separate colloid particles and macromolecular substances from water. Nanofiltration and reverse osmosis processes have high efficiency in desalination and removing organics with low molecular weight. For desalination, electrodialysis, forward osmosis and membrane distillation are also attractive processes. To capture salinity-gradient energy, pressure-retarded osmosis and reverse electrodialysis are the most promising methods. For energy generation from organic matter in waste waters and biomass, microbial fuel-cell technologies have drawn more attention. This Special Issue is devoted to the sustainable application of membranes to satisfy the demand of high-quality water and to generate green energy using water.

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## Message from the Editor-in-Chief

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**Journal Rank:** JCR - Q2 (*Water Resources*) / CiteScore - Q1 (*Water Science and Technology*)

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