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Innovating Water Treatment with AI, IoT, and Machine Learning: A Focus on Membrane Distillation

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Message from the Guest Editors

This Special Issue is designed to present the most recent research or comprehensive reviews related to the potential of AI, IoT, and Machine Learning in membrane distillation and other membrane-based water treatment processes. The Special Issue will contribute to the knowledge based on novel materials and membranes for improved water separation and fouling resistance, advanced sensors and monitoring systems for real-time water quality assessment, AI and Machine Learning algorithms for intelligent process optimization, fault detection, and predictive maintenance, IoT-enabled smart water systems for remote monitoring and management of water treatment plants, Cost-analysis, and life cycle assessment of AI, IoT, and Machine Learning-based water treatment systems.

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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