Special Issue

Innovative Membrane Technology for Desalination, Wastewater Treatment and Energy Production

Message from the Guest Editor

The rapidly growing population and the modern lifestyle have tremendously increased the demand for freshwater and energy. In order to fulfil the demand for water, desalination and water reuse have been adopted in many parts of the world. Similarly to the traditional desalination techniques, the need for sustainable and clean energy is globally recognized. Innovative membrane processes, such as pressure-retarded osmosis (PRO) and reverse electrodialysis (RDE), have gained interest for the production of green and sustainable energy. Both processes fundamentally apply the concentration gradient for electricity production and are based on the preferential transport of water (PRO) or ions (RED) through a semipermeable membrane. The current Special Issue seeks unpublished, original research articles as well as critical reviews on all aspects of MD, FO, PRO and RED in the broad context of desalination, wastewater treatment and energy production. The specific emphasis is on membrane preparation/modification, case studies, process modeling and module design.

Guest Editor

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Deadline for manuscript submissions

closed (15 October 2020)

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Message from the Editor-in-Chief

Environmental issues are quickly becoming central political, economic and academic topics of the twenty-first century. A large number of modern challenges are directly or indirectly caused by complex interactions between environmental issues. Such issues require interdisciplinary research, knowledge and insights to understand and, ultimately, for solutions to be found. Through the journal Environments, we strive to create a platform for meaningful discourse by accepting contributions from a wide range of fields. We sincerely hope you will consider publishing your distinguished work in this highly-accessible, peer-reviewed journal.

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