



Membranes for Water Treatment and Desalination

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Message from the Guest Editor

Fresh water scarcity has become a critical global challenge. Membrane processes such as reverse osmosis, nanofiltration, ultrafiltration, microfiltration and forward osmosis have emerged as a promising alternative to conventional water treatment processes. Several water stressed countries rely on membrane-based desalination for supplying drinking water to its consumers. Nevertheless, there are many aspects in membrane-based processes which pose a challenge. These include tuning of membrane properties for selective rejection, optimizing membrane modules for energy efficiency, membrane fouling prevention, and modifying membrane properties to meet specific requirements for industrial wastewater treatment. In addition, the introduction of novel membrane materials based on carbon nanotubes and graphene have further revolutionized this field, while several others, such as zeolite-based materials, have shown prospects of removing 100% of salt from seawater, theoretically.

We welcome manuscripts based specifically on this topic, yet which cover at the same time a broad spectrum from membrane materials to membrane systems.





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Message from the Editor-in-Chief

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