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Ion Exchange Membranes for Energy and Environmental Applications

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Message from the Guest Editors

Ion-exchange membranes (IEMs) comprised of charged ion groups attached to a polymeric backbone. Dissolved ions are transported across the conductive polymeric membrane. Ion exchange membranes have received much research attention for energy and environmental applications. The IEMs have been used in water processing, management of effluents from mining industry, hydrometallurgy, and paper and pulp industry. Recently, IEMs has been applied in diverse electrochemical technologies such as next generation of fuel cells, electrolyser, metal-air batteries, redox flow batteries, actuators, reverse electrodialysis and carbon capture by electrochemical CO₂ pumps. This has led to a steady growth in industrial applications for IEMs over years.

This special issue welcomes articles on different aspects of membrane preparation, membrane characterization, membrane applications, transport characteristics, environmental problems among others.









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Message from the Editor-in-Chief

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