



## Synthesis and Application of Polymer-Based Membranes

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### Message from the Guest Editors

Dear Colleagues,

Polymer-based membranes are employed in myriad applications involving transport processes. These applications include membrane gas separation; water purification processes, including reverse osmosis and nano-, ultra-, and microfiltration; electro dialysis; dialysis; hemodialysis; protective coatings (paint); and barrier properties for packaging films.

In the field of gas and liquid separation and purification, polymer-based membrane technologies can compete with conventional separation and purification processes (such as pressure swing adsorption, cryogenic distillation, and distillation) because polymer-based membrane technologies can be more energy efficient, more environmentally friendly, and technically simpler to implement.

This Special Issue aims to bring together research papers, short communications, and review articles focused on the novel synthesis, device designs, fabrication, and advanced characterization of polymer-based membranes for several different applications in order to provide a comprehensive overview of the state of the art in the field.

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*Guest Editors*





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## Message from the Editor-in-Chief

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