Special Issue

Advanced Electrochemical Applications of Polymer Materials

Message from the Guest Editor

With the increasing demand for sustainable energy technologies, polymer materials have gained significant attention for their role in electrochemical applications. This research area addresses key challenges in energy storage, conversion, and sensing, which are critical for advancing clean energy solutions. Given the growing need for high-performance materials in lithium-ion batteries, supercapacitors, fuel cells, and water electrolysis, the development of functional polymers has become a central focus. These materials offer enhanced ion conduction, stability, and energy efficiency, paving the way for next-generation energy devices. This Special Issue will focus on the latest advancements in polymer materials for electrochemical applications. Topics will include the synthesis, characterization, and performance optimization of functional polymers for energy storage devices, ion conduction mechanisms, and their integration in fuel cells and supercapacitors. The aim is to provide a comprehensive overview of the current state of polymer research in energy applications and explore future directions for developing environmentally sustainable energy technologies.

Guest Editor

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Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.7.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Alexander Böker
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