

## Special Issue

# Advanced Polymer-Based Nanocomposites for Energy Storage, Environmental Remediation, and Sensing Applications

### Message from the Guest Editor

This Special Issue aims to bring together cutting-edge research on the synthesis, characterization, and applications of polymer-based nanocomposites in diverse fields such as energy storage, environmental remediation, and electrochemical sensing. Emphasis will be placed on hybrid systems involving conducting polymers, biopolymers, metal oxides, MXenes, carbon nanotubes, and graphene derivatives that exhibit multifunctional properties. Topics of interest include, but are not limited to, solid-state supercapacitors, structural energy storage devices, pollutant adsorption mechanisms, wastewater treatment materials, and the real-time sensing of hazardous chemicals. We welcome both experimental and theoretical studies that explore structure–property–performance correlations and that advance our understanding of polymer nanocomposite interfaces. Contributions that demonstrate novel fabrication techniques, sustainable material approaches, and scalable applications are especially encouraged.

### Guest Editor

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### Deadline for manuscript submissions

31 January 2026



## Polymers

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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.

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### Editor-in-Chief

Prof. Dr. Alexander Böker

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