Special Issue

Next-Generation Polymeric Absorbent Materials: Innovations in Sorption, Sustainability, and Micro/Nanoplastics Remediation

Message from the Guest Editors

The ever-growing demand for sustainable materials and the rising concerns over environmental pollution have steered global research efforts towards the development of advanced polymeric absorbent materials. This Special Issue aims to showcase recent breakthroughs in the design, synthesis, functionalization, and application of polymeric absorbents across various fields such as environmental remediation, biomedical engineering, industrial separation, and hygiene technologies. Special attention will be paid to smart absorbent materials, bio-based and biodegradable polymers, nanocomposites, and hybrid systems that offer enhanced selectivity, capacity, and regeneration potential. Given the urgency of addressing micro- and nanoplastic pollution, we particularly welcome studies focusing on the selective capture, adsorption mechanisms, and long-term removal performance of these emerging pollutants. The issue also encourages contributions exploring advanced fabrication techniques (e.g., electrospinning, 3D/4D printing), mechanistic and rheological modeling of sorption processes, and real-world application case studies.

Guest Editors

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Deadline for manuscript submissions

31 January 2026

Polymers

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed

mdpi.com/si/245187

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mdpi.com/journal/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.

Editor-in-Chief

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