

Special Issue

Advances in Polymer Gels: Properties, Design, and Applications

Message from the Guest Editor

Polymer gels encompass complementary classes of soft materials derived from both synthetic polymers and biopolymers. Synthetic polymer gels are obtained from man-made polymers. They can be engineered to exhibit advanced functions such as self-assembly, responsiveness to environmental stimuli, and molecular recognition. Biopolymer gels provide superior biocompatibility, inherent bioactivity, and molecular specificity, making them particularly attractive for biomedical and therapeutic applications.

Polymer gels stand at the forefront of innovation across diverse fields, including medicine, biomedical engineering, and materials science. Their ability to bridge fundamental science with real-world applications has established them as a rapidly expanding research domain.

This Special Issue aims to showcase the most recent progress in this area. We welcome papers exploring new concepts, experimental approaches, and application-oriented studies on polymer and biopolymer gels. Contributions emphasizing advances in synthesis, structural design, functional properties, and innovative applications are especially encouraged.

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 4.9.

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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