Special Issue

Smart Polymeric Materials for Biomedical Applications

Message from the Guest Editor

Recent advances in materials science and biomedical engineering have led to the development of smart polymeric materials. Smart polymers with controlled physicochemical changes in response to internal or external stimuli enable more precise, effective, and personalized medical interventions.

This Special Issue aims to showcase the latest developments in the design, synthesis, characterization, and biomedical application of polymeric materials, reflecting the synergy among various fields as part of Polymers' commitment to advancing polymer science and applications. Research areas may include (but not limited to):

- Stimuli-responsive polymers for controlled drug and gene delivery
- Self-healing and shape-memory polymers for medical devices
- Injectable and in situ-forming hydrogels for tissue engineering
- Biodegradable smart polymers for temporary implants
- Smart nanocomposites and hybrid materials for biosensing or imaging
- Polymers for responsive wound dressings and hemostatic agents
- Structure–state-property–function relationships in smart biomedical polymers
- Bioprinting and 3D scaffolds using smart polymeric materials

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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