Special Issue

Synthesis, Characterization and Biomedical Applications of Hydrogels

Message from the Guest Editor

Hydrogels—three-dimensional crosslinked networks of hydrophilic polymers—have become a popular choice for many biomedical applications due to their ability to hold large amounts of water or biological fluids, therapeutic agents, and other biomolecules. Furthermore, many of their properties (porosity, swellability, viscoelasticity, etc.) can be tuned for different applications by either altering their chemical composition and crosslinking, or by external stimuli such as pH and temperature. Hydrogels have thus been used as prime candidates for the development of biosensors, drug delivery platforms, extracellular matrix scaffolds for tissue engineering, and bioinks for 3D bioprinting. This Special Issue will highlight original articles and reviews that describe the synthesis and characterization of hydrogels for various biomedical applications, including the delivery of therapeutics, self-healing, scaffold design, biofabrication, and regenerative medicine. Submissions describing the development of multifunctional hydrogels and reinforced hydrogel composites are also highly encouraged, as are perspectives on future trends and challenges in this field.

Guest Editor

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Deadline for manuscript submissions

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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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