

Special Issue

Next-Generation Biomaterials from Polysaccharides: Green, Functional, and Biomedical

Message from the Guest Editors

Polysaccharides are emerging as key components in the development of next-generation biomaterials, thanks to their renewable origin, biocompatibility, biodegradability, and exceptional chemical versatility. These natural polymers can be engineered into films, hydrogels, nanofibers, and hybrid systems, serving as bioactive materials or delivery platforms for therapeutic agents. Their role spans a wide range of biomedical applications, including drug delivery, tissue engineering, implant coatings, and wound healing.

This Special Issue welcomes original research articles, reviews, and short communications that highlight the design, modification, and biomedical application of polysaccharide-based materials. Topics of interest include, but are not limited to, the following:

- Drug delivery systems (micro- and nanocarriers, responsive release);
- Implant coatings and surface functionalization;
- Electrospun nanofibers and biomedical textiles;
- Hydrogels for wound healing and regenerative medicine;
- Scaffolds for tissue engineering and cell therapy;
- Green and sustainable processing of polysaccharide biomaterials.

Guest Editors

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About the Journal

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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