

## Special Issue

# Design of Natural Biopolymers for Eco-Friendly and Advanced Functional Materials

### Message from the Guest Editors

Natural biopolymers, including cellulose, hemicellulose, lignin, chitosan, collagen, and gelatin, have recently garnered significant attention as functional materials due to their biodegradability, renewability, and environmentally friendly properties. The abundance of polar groups on the backbones of these biopolymers provide an excellent platform for chemical modification and physical interactions. These modified biopolymers have a wide range of applications, from sensors and actuators to biomedical and space engineering, spanning across macroscale to nanoscale dimensions. This Special Issue will cover a broad spectrum of research topics, including, but not limited to, the following areas:

- Design and applications of functional materials derived from plant-based biopolymers;
- Design and applications of functional materials derived from animal-based biopolymers.

### Guest Editors

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### Deadline for manuscript submissions

closed (10 July 2025)



## Polymers

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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.

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### Editor-in-Chief

Prof. Dr. Alexander Böker

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