



## Polymers for Sustainable Packaging

Guest Editors:

**Dr. Xiaohong Lan**

**Dr. Dina Maniar**

**Prof. Dr. Xingxun Liu**

Deadline for manuscript  
submissions:

**closed (15 April 2024)**

### Message from the Guest Editors

The use of petroleum-based synthetic polymers in packaging poses a significant threat to the environment. With the increasing concerns over population growth, safety, and health, as well as the rising demand for packaged food and consumer goods, the need for sustainable and smart packaging has become more pressing. Starch-based biopolymers are environmentally sustainable and possess desirable properties, such as good solubility, multifunctionality, and easy processability, making them a promising alternative to conventional petroleum-based synthetic polymers in packaging.

A broad range of topics will be covered by the Special Issue, including, but not limited to, the following:

- Synthetic of starch-based renewable resin;
- Multi-scale structure characterization;
- Mechanical and dynamic modeling of packaging;
- Biodegradable sensor technology;
- Investigation of biodegradable mechanisms;
- Barrier properties of starch-based biopolymers;
- Sustained-release properties of starch-based biopolymers;
- Safety assessment of starch-based biopolymers;
- Life-cycle analysis of starch-based biopolymers.





# *polymers*



an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Alexander Böker**

Lehrstuhl für Polymermaterialien  
und Polymertechnologie,  
University of Potsdam, 14476  
Potsdam-Golm, Germany

## 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 5.0.

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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubMed, PMC, FSTA, CAPlus / SciFinder, Inspec, and other databases.

**Journal Rank:** JCR - Q1 (*Polymer Science*) / CiteScore - Q1 (*Polymers and Plastics*)

## Contact Us

---

*Polymers* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/polymers](http://mdpi.com/journal/polymers)  
[polymers@mdpi.com](mailto:polymers@mdpi.com)  
[X@Polymers\\_MDPI](https://twitter.com/Polymers_MDPI)