

## Special Issue

# Synthesis and Applications of Bio-Based Polymers

### Message from the Guest Editor

Bio-based polymers are increasingly attracting attention in the areas of polymer chemistry, biochemistry, material sciences, medicine, food sciences, etc. Factors such as natural origin, biodegradability, sustainability, biocompatibility and multifunctionality are only a few that drive this interest. The versatility of their chemical structure, especially their functional moieties, allows for them to be used in a broad spectrum of applied fields as surface coatings, self-standing 3D materials, fibers, films and foils, nano- and microparticles, etc. Because of their broad range of applications, it is important to understand the mechanisms by which they perform their function, allowing one to synthesize and derivatize bio-based polymers with specific and targeted action. A future where bio-based polymers are not merely inferior alternatives to synthetic polymers, but surpass them, can be envisioned in such a way. This Special Issue aims to compile original and cutting-edge research in the field of synthesis of bio-based polymers for targeted applications.

### Guest Editor

Dr. Matej Bracic

Institute of Engineering Materials and Design, Faculty of Mechanical Engineering, University of Maribor, 2000 Maribor, Slovenia

### Deadline for manuscript submissions

30 June 2025



## Polymers

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.7  
CiteScore 8.0  
Indexed in PubMed



[mdpi.com/si/174168](https://mdpi.com/si/174168)

*Polymers*

MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[polymers@mdpi.com](mailto:polymers@mdpi.com)

[mdpi.com/journal/  
polymers](https://mdpi.com/journal/polymers)





# Polymers

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.7  
CiteScore 8.0  
Indexed in PubMed



[mdpi.com/journal/  
polymers](https://mdpi.com/journal/polymers)



## 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 4.7.

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

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

---

### 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 (General Chemistry)