## **Special Issue**

## Carbohydrate Polymers: Synthesis, Preparation, Structural Characteristics and Applications

## Message from the Guest Editors

Carbohydrate polymers are some of the most abundant and important biological macromolecules in nature. Carbohydrate-related polymers can be roughly divided into three categories: (a) polysaccharides found in nature, usually homopolymers or heteropolymers (including cellulose, dextrin, and agarose); (b) naturally derived synthetic polysaccharides, which are polymers containing the main chain of carbohydrates, made by ring-opening polymerization or other methods with monomers made from natural sugars; and (c) sugar polymers (including glycopeptides) are synthetic polymers with monosaccharides or oligosaccharides as side groups. The application of carbohydrate polymers, especially sugar polymers, has attracted significant attention. This Special Issue mainly covers the preparation, structural modification, biological and chemical synthesis, structural characteristics, biological activity, and potential application of carbohydrate polymers in areas such as bioenergy, bioplastics, biomaterials, nanotechnology, biorefining, drug delivery, food, chemistry, packaging, paper, pharmaceuticals, medicine, oil recovery, textiles, and wood.

#### **Guest Editors**

Prof. Dr. Aoxue Luo

Department of Landscape Plants, Sichuan Agriculture University, Chengdu 611130, China

Dr. Yijun Fan

Department of Landscape Plants, Sichuan Agriculture University, Chengdu 611130, China

### Deadline for manuscript submissions

closed (15 May 2025)



## **Polymers**

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed



mdpi.com/si/188639

Polymers
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
polymers@mdpi.com

mdpi.com/journal/polymers





# **Polymers**

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.7 Indexed in PubMed



## **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)

