Special Issue

New Insights into the Production of Polysaccharides and Their Derivatives for Challenging Sustainable Development

Message from the Guest Editor

This Special Issue aims to give an overview of new insights into the production of poly- and oligosaccharides but also derivatives from these macromolecules for challenging sustainable development of the next decade. The topics for scientific research articles include, but are not limited to:

- Characterizing the structural features
- Monitoring new physico-chemical and/or biological properties
- Using various polysaccharide sources
- Synthetising oligosaccharides and/or derivatives using chemical, physical and/or enzymatic methods
- Proposing life cycle assessment, circular economy and/or sustainable development approaches
- Various fields for applications, such as biomaterials, biotechnology, bioprocess, pharmacology, energy, etc.
- Answering the socioeconomical needs of any country.

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2023)



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About the Journal

Message from the Editor-in-Chief

Polysaccharides and their derivatives are ubiquitous biopolymers, and therefore in recent years their potential use has increasingly been explored. Polysaccharides are still the biggest class of biopolymers used in classical industries such as the paper and textile industry. The progress and fundamental aspects of the new synthesis pathways and derivatization routes, characterization, properties, as well as processing of polysaccharides is important for their possible application in modern sustainable functional materials and future green technologies.

Editor-in-Chief

Prof. Dr. Karin Stana Kleinschek Institute for Chemistry and Technology of Biobased Systems, Graz University of Technology, 8010 Graz, Austria

Author Benefits

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indexed within ESCI (Web of Science), Scopus, FSTA, CAPlus / SciFinder, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 36.4 days after submission; acceptance to publication is undertaken in 4.5 days (median values for papers published in this journal in the first half of 2025).

Journal Rank:

JCR - Q1 (Polymer Science) / CiteScore - Q1 (Engineering (miscellaneous))