Special Issue

Modification and Application of Starch-Based Polymers

Message from the Guest Editor

Due to its universality, environmental safety, biocompatibility, and application potential, starch is intensely important for the industry. However, its physicochemical properties, including the tendency to induce swelling and retrogradation, strong polarity, variable rheological properties, and structural differences characterizing various botanical types, make its processing difficult. The use of proper modification allows for starch industrialization. The derivatives obtained by variable synthesis (chemical or physical) methods give starch-based materials unique, programmable, processing, and utility properties. The design of biomaterials for specific applications in the food and packaging industry, as well as in medicine and cosmetics, attracts particular attention. Controlled biodegradability, improved mechanical strength and water resistance, as well as more specific properties for definite applications (gas barrier and antioxidant properties, biocompatibility, and bioactivity), are of particular interest.

Guest Editor

Dr. Dagmara Bajer

Faculty of Chemistry, Nicolaus Copernicus University in Toruń, Gagarina 7, 87-100 Toruń, Poland

Deadline for manuscript submissions

closed (25 March 2024)

Polymers

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed

mdpi.com/si/165467

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

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)

MDPI