Special Issue

Biomacromolecules and Biobased Polymers: Synthesis, Application and Natural Functions

Message from the Guest Editor

Dear Colleagues A number of biologically active molecules and biomaterials used for production of medicines and medical devices are biomacromolecules and bio-based polymers: nucleic acids, proteins, polysaccharides, lipids, macrocycles and polyketides. A series of antibiotics are plant macrocycles and polyketides, scaffolds for tissue engineering are manufactured from bacterial-origin polyhydroxyalkanoates and insect protein silk fibroin, modern vaccines are nucleic acids loaded in lipid nanoparticles. Therefore, biomacromolecules and polymers of natural-origin are playing an increasing role in modern pharmaceutics and medicine. However, the natural properties of these biopolymers (informational, enzymatic, signal, regulatory, storage, structural, mechanical etc.) are not always adequately taken into account in the development of drugs and biomaterials with superior biomedical properties. The main feature of this special issue is to provide an open-source sharing of original research and review articles, which address the progress and fundamental aspects for the synthesis, characterization, properties, application, and natural functions of biomacromolecules and biobased polymers.

Guest Editor

Dr. Anton P. Bonartsev

Faculty of Biology, M. V. Lomonosov Moscow State University, 119234 Moscow, Russia

Deadline for manuscript submissions

closed (20 March 2024)

Polymers

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed

mdpi.com/si/164522

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

MDPI

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)