

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 pharmaceuticals 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

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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 4.9.

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

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