

Special Issue

Development of New Polymer Matrix Composites for Medical and Biological Applications

Message from the Guest Editor

The production of composites with a polymer matrix opens up promising prospects for the development of new implants and endoprostheses, systems with controlled release of pharmacologically active drugs, materials for soft tissue replacement, as well as muscle imitation and determination of metabolite concentrations. The purpose of this Special Issue is to collect results on the preparation and use of polymer composite materials in medicine and biology, as well as on the synthesis of new promising macromolecules for the pharmaceutical science. Original and review manuscripts dedicated to the problems of the preparation and application of hydrogels, polymer materials used for production of implants and endoprostheses, macromolecular drugs carriers, as well as biodegradable materials, are welcome. The development of hemocompatible materials and amphiphilic polymers for pharmacological applications, control of the rate of biodegradation of polymers, pharmacokinetics, composites based on biopolymers, imitation of soft tissues and muscles, creation of biosensors are also the subject of this Special Issue.

Guest Editor

Dr. Yaroslav O. Mezhuev

Institute of Chemistry and Problems of Sustainable Development,
Mendeleev University of Chemical Technology of Russia, Moscow
125047, Russia

Deadline for manuscript submissions

closed (25 September 2022)



Polymers

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed



mdpi.com/si/106704

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

[mdpi.com/journal/
polymers](https://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](https://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 4.9.

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

Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für Polymermaterialien und Polymertechnologie, Universität Potsdam, Geiselbergstraße 69, 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, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q1 (Polymer Science) / CiteScore - Q1 (General Chemistry)