

Special Issue

3D Printing Polymer: Processing and Fabrication

Message from the Guest Editors

The 3D printing of polymers is being increasingly applied in the pharmaceutical, aerospace, and architectural industries and for the fabrication of sensors and other devices. This technology uses a bottom-up approach to create 3D objects by additively adding materials layer-by-layer (LBL), thus reducing waste while producing a high degree of geometric accuracy. However, most 3D-printed polymer models are still used as conceptual prototypes rather than functional components. This can be due to a lack of strength and functionality as fully functional and load-bearing parts. A potential solution is combining polymers with additional functional ingredients such as nanoparticles, materials derived from nature, and biomedically functional materials (e.g., peptides, enzymes) to achieve a multi-ingredient polymer system with a higher degree of suitable mechanical and functional properties. This Special Issue welcomes papers on a wide variety of topics in polymer processing and fabrication with a particular emphasis on 3D printing (Additive Manufacturing) and research that supports relevant fundamental advances.

Guest Editors

Dr. Yu Zhang

Division of Molecular Pharmaceutics and Drug Delivery, College of Pharmacy, The University of Texas at Austin, Austin, TX, USA

Dr. David Alexander Gregory

Department of Materials Science and Engineering, University of Sheffield, Sheffield S3 7HQ, UK

Deadline for manuscript submissions

closed (25 May 2024)



Polymers

an Open Access Journal
by MDPI

Impact Factor 4.7
CiteScore 8.0
Indexed in PubMed



mdpi.com/si/139808

Polymers

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 4.7
CiteScore 8.0
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 4.7.

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)