

# Special Issue

## 3D Printing in Biomedicine

### Message from the Guest Editors

3D printing, also known as additive manufacturing, has become the forefront of research in biomedical fields. 3D printing enables fabrication of patient specific devices and tissue constructs, making attractive, alternative therapeutic solutions for medical applications. This manufacturing technology is currently used in large varieties of medical applications including dentistry, anatomical models, medical devices, tissue engineering scaffolds/models, and drug formulation. 3D bioprinting, refers to printing living cells and biomaterials, has enabled highly-controlled assembly of cell-laden hydrogels as well as cell suspensions and spheroids as “bioinks”. There is a growing demand to develop novel printable biomaterials and bioinks to achieve desired properties such as printability and end-use properties (biomechanics, degradation, bioactivity, etc.). Our topics includes development of novel (bio)printing technologies and open source (bio)printers, design and utilization of printable biomaterials and bioinks, development of imaging technologies and software for (bio)printing, medical applications of 3D printing, regulatory issues and potential solutions.

### Guest Editors

Dr. Murat Guvendiren

Department of Chemical and Materials Engineering, NJIT, University Heights, Newark, NJ 07102, USA

Dr. Vahid Serpooshan

Departments of Biomedical Engineering and Pediatrics, Georgia Institute of Technology & Emory University School of Medicine, Atlanta, GA 30332, USA

### Deadline for manuscript submissions

closed (31 August 2021)



## Polymers

an Open Access Journal  
by MDPI

Impact Factor 4.9  
CiteScore 9.7  
Indexed in PubMed



[mdpi.com/si/47142](https://mdpi.com/si/47142)

*Polymers*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[polymers@mdpi.com](mailto: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)