

## Special Issue

# Stimulus-Responsive Materials for Biomedical Applications

### Message from the Guest Editors

Shape memory polymers and alloys have maintained a strong presence and utility in industrial and medical applications for decades. Their ability to maintain a programmable shape for long durations and stimulated recovery are desirable for a variety of applications, especially in medical device optimization and tissue engineering. This Special Issue on “Stimulus-Responsive Materials for Biomedical Applications” focuses on the synthesis and design challenges of developing shape memory material structures and their potential use in medical therapies and tissue engineering. Original research and comprehensive reviews pertaining to existing and newly developed shape memory polymers and alloys for medical applications are appreciated. Aspects of medical device design and development such as material synthesis and characterization, device design, device performance evaluation, biocompatibility, biodegradation, and patient output will be explored with the only requirement being that the study motivation involve stimulus-responsive materials.

### Guest Editors

Prof. Dr. Duncan J. Maitland

Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843, USA

Dr. Sayyeda Marziya Hasan

Shape Memory Medical Inc., Santa Clara, CA 95054, USA

### Deadline for manuscript submissions

closed (31 March 2023)



## Polymers

an Open Access Journal  
by MDPI

Impact Factor 4.9  
CiteScore 9.7  
Indexed in PubMed



[mdpi.com/si/84011](https://mdpi.com/si/84011)

*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 4.7.

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)