

## Special Issue

# Preparation, Application, and Performance of Hydrogels

### Message from the Guest Editors

Hydrogels, three-dimensional networks capable of absorbing a significant amount of water, have emerged as a versatile material with growing applications in various scientific fields. This Special Issue aims to showcase cutting-edge research that advances the development, characterization, and application of hydrogels. Research on hydrogels has a rich history, with significant advancements in polymer design, crosslinking strategies, and functionalization techniques over past decades. Recent progress highlights the development of stimulus-responsive hydrogels, hydrogels with tailored functionalities, and in silico modeling approaches for optimizing hydrogel properties. This Special Issue seeks original research papers that explore novel strategies for hydrogel preparation, address performance limitations, and demonstrate innovative applications in drug delivery, tissue engineering, environmental remediation, and other areas. We look forward to receiving your high-quality manuscripts that contribute to the advancement of hydrogel research.

---

### Guest Editors

Dr. Thamiros Andrade Lima  
Dr. Nicolas Javier Alvarez  
Prof. Dr. Fabio Furlan Ferreira

---

### Deadline for manuscript submissions

closed (20 February 2026)



## Materials

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/208022](https://mdpi.com/si/208022)

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

[mdpi.com/journal/  
materials](https://mdpi.com/journal/materials)





# Materials

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/journal/  
materials](https://mdpi.com/journal/materials)



## About the Journal

### Message from the Editorial Board

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

---

### Editors-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

---

### 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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) /  
CiteScore - Q1 (Condensed Matter Physics)