

## Special Issue

# Hydrogels: Synthesis, Characterization and Applications

### Message from the Guest Editors

Hydrogels, due to their biomimetic nature, have been widely explored for application in regenerative medicine. With the advancements in chemistry, biology and material sciences, diverse new methods for the synthesis and characterization of hydrogels have been proposed; the chemical compositions, topological structures and functionalities of hydrogels can be manipulated more effectively; and the physiological properties and biological functions of hydrogels can be further tailor-made and greatly enhanced. In this Special Issue, we aim to highlight the most recent progress in the synthesis, characterization and application of hydrogels in regenerative medicine, with the expectation to provide new insights into the development of clinical applicable hydrogels. We invite original research articles and review papers that cover the emerging methods for synthesizing and characterizing hydrogels, new strategies in tailoring the chemical compositions, functionalities, and properties of hydrogels, the in vitro and in vivo performance of hydrogels in tissue engineering, drug delivery and diagnosis, etc., and potential challenges in translating hydrogels to clinical settings.

### Guest Editors

Prof. Dr. Dezhong Zhou

School of Chemical Engineering and Technology (SCET), Xi'an Jiaotong University, Xi'an 710049, China

Dr. Shuai Liu

College of Pharmaceutical Sciences, Zhejiang University, Hangzhou 310058, China

### Deadline for manuscript submissions

closed (31 August 2023)



## Gels

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.3  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/108158](https://mdpi.com/si/108158)

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

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





# Gels

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.3  
CiteScore 7.6  
Indexed in PubMed



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



## About the Journal

### Message from the Editorial Board

*Gels* (ISSN 2310-2861) is recently established international, open access journal on physical and chemical gel-based materials. The journal aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. General topics include but not limited to synthesis, characterization and applications of new organogels, hydrogels and ionic gels made either from low molecular weight compounds or polymers, composite and hybrid materials where a metal is by some means incorporated into the gel network, and computational studies of these materials in order to provide a better understanding of gelation mechanism. We cordially invite you to consider publishing with us and contribute with your own grain of sand to the advance in this fascinating field.

---

### Editors-in-Chief

Prof. Dr. Esmail Jabbari

Biomimetic Materials and Tissue Engineering Laboratory, Department of Chemical Engineering, University of South Carolina, Columbia, SC 29208, USA

Prof. Dr. Chuanliang Feng

State Key Lab of Metal Matrix Composites, School of Materials Science and Engineering, Shanghai Jiao Tong University, Shanghai 200240, China

---

### Author Benefits

#### High visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPIus / SciFinder, and other databases.

#### Journal Rank:

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

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 13.5 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).