Special Issue

Recent Advances in Hydrogels for Biomedical Application

Message from the Guest Editor

Hydrogels are an important class of soft materials characterized by their water-swollen and three-dimensional structure, biodegradability, and injectability. These materials have garnered substantial attention in recent years due to their diverse biomedical applications. Precise control of the spatiotemporal structure of hydrogels forms the bedrock for their complex biomedical applications. This control allows for the synthesis of hydrogels with adjustable physiochemical properties and responsive behavior. Advancements in this field require an interdisciplinary approach, combining chemistry, biology, and materials science to gain insight into the relationship between molecular and supramolecular structures, and the biological effects resulting from the dynamic behavior of hydrogel systems at biointerfaces. Such efforts can aid in fine-tuning the properties of hydrogels as required and open up new applications in biomedicine. Therefore, this Special Issue aims to provide an in-depth look at the latest advances in the control of hydrogels and highlight their corresponding biomedical applications.

Guest Editor

Prof. Dr. Kai Liu

Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen 518055, China

Deadline for manuscript submissions

closed (20 July 2024)

Gels

an Open Access Journal by MDPI

Impact Factor 5.3
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/169512

Gels
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
gels@mdpi.com

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

MDPI

About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Esmaiel Jabbari
Biomimetic Materials and Tissue Engineering Laboratory, Department of Chemical Engineering, University of South Carolina, Columbia, SC 29208, USA

Author Benefits

High visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / 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 12.5 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).