Special Issue

Cellulose Gels: Properties and Prospective Applications

Message from the Guest Editor

Nanocellulose hydrogels are highly hydrated porous cellulosic soft materials with good mechanical properties. These cellulose-based gels can be produced from bacterial or plant cellulose nanofibrils, which are hydrophilic, renewable, biodegradable and biocompatible. Cellulose functionalization provides enhanced physical and chemical properties and control of biological interactions, tailoring its hydrogels for specific applications. At present, nanocellulose hydrogels have emerged as a highly engineerable platform for multiple biomedical applications, providing renewable and performant solutions to life sciences. We invite you to submit work representing the recent progress related to the engineering of nanocellulose hydrogels for applications to this Special Issue, to facilitate in the transition of these systems from the laboratory to industrial production.

Guest Editor

Dr. Xiaopeng Peng

State Key Laboratory of Tree Genetics and Breeding, Key Laboratory of Tree Breeding and Cultivation of the National Forestry and Grassland Administration, Research Institute of Forestry, Chinese Academy of Forestry, Beijing 100091, China

Deadline for manuscript submissions

28 February 2026

Gels

an Open Access Journal by MDPI

Impact Factor 5.3
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/221463

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).