

Special Issue

Recent Progress and Development of Advanced Aerogels: Latest Processing Methods, Improved Properties and Application

Message from the Guest Editors

Aerogels have attracted considerable attention in recent decades due to their natural, low-toxicity features and controllable, porous structures. Based on various matrices, enhanced additives, updated processing technology, aerogel composites display optimized properties in the realms of insulation, flame retardancy, absorption, and catalysis, etc., and exhibit tremendous potential applications in aerospace, construction, electronic and medical device. In this Special Issue, we aim to summarize the progressive investigation of aerogels through the publication of studies covering inorganic, organic and hybrid substances of this kind, focusing in particular on improved properties and functionalities. We hope to collect recent findings and discover their potential for use in future applications. The submission of studies discussing the use of advanced additives, the latest processing technologies and the optimized properties of aerogels is welcome!

Guest Editors

Dr. Mingze Sun

1. Department of Macromolecular Science and Engineering, Case Western Reserve University, Cleveland, OH, USA
2. Department of Surgery, Columbia University Medical Center, New York, NY, USA

Dr. Tobias Abt

Department of Materials Science and Engineering, Universitat Politècnica de Catalunya (UPC), Barcelona, Spain

Deadline for manuscript submissions

closed (15 May 2024)



Gels

an Open Access Journal
by MDPI

Impact Factor 5.3
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/171148

Gels
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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 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. Esmail 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, CAPus / 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).