

Special Issue

3D Printing of Gels: Applications and Properties

Message from the Guest Editor

The 3D printing of gels is a very popular method to produce scaffolds to be used in tissue engineering and other biomedical applications (bioscaffolds), as well as in other advanced technological areas. Bioprinting, cell printing, or even organ printing are the labels coined for the printing of tissues using additive manufacturing. Bioprinting combines 3D printing technology, cell biology, and material science, by linking a device that enables the deposition of bioinks with the build platform, where cooling leads to solidification. The inks mostly used as building materials for extrusion bioprinting are based on hydrogels, either in the form of gel precursors or as performed gels. This Special Issue focuses on the design of hydrogels and their printing process for different bioprinting applications. Relevant topics include, but are not limited to, theoretical and experimental investigations, mechanical properties, biological properties, thermal performance, structural characteristics, forming processes, and tissue formation.

Guest Editor

Dr. Daniele Tammaro

Department of Chemical, Materials and Production Engineering,
University of Naples Federico II, 80125 Naples, Italy

Deadline for manuscript submissions

closed (31 January 2024)



Gels

an Open Access Journal
by MDPI

Impact Factor 5.3
CiteScore 7.6
Indexed in PubMed



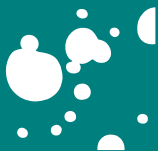
mdpi.com/si/141933

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).