Special Issue

Modeling and Simulation of Gel-Based Materials

Message from the Guest Editor

Modeling and simulations play a key role in materials science. Recent progress in the research of gel-based materials has been strongly reinforced by modeling and simulation studies. With a growing interest in this subject within the gel community, we welcome submissions related to modeling and simulation of hydrogels, aerogels, and other gel-based materials.Special attention will be given to studies focusing on modeling of their structure-property relations. The properties of interest are thermal, mechanical, acoustic or textural. We encourage submissions describing physically motivated modeling approaches, such as micromechanical ones or molecular dynamics simulations, as well as multiscale models. Also of interest are submissions related to the modeling of the synthesis process of the gels or aerogels. Submissions on fundamental materials research as well as on application-oriented simulationbased research are welcome. Keywords

- aerogels
- hydrogels
- structure-property modeling
- multiscale models
- molecular dynamics simulations
- computational models

Guest Editor

Dr. Ameya Rege Institute of Materials Research, German Aerospace Center (DLR), Linder Hoehe, 51147 Köln, Germany

Deadline for manuscript submissions

closed (31 January 2021)



an Open Access Journal by MDPI

Impact Factor 5.3 CiteScore 7.6 Indexed in PubMed



mdpi.com/si/51713

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



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. 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).