



Rheological Studies and Applications of Hydrogels Related to Drug Delivery

Guest Editors:

Dr. Zsófia Edit Pápay

Dr. Norbert Varga

Prof. Dr. György T. Balogh

Deadline for manuscript
submissions:

28 February 2025

Message from the Guest Editors

Hydrogels are well-known materials due to their excellent gel-forming properties, the number of publications devoted to which has grown exponentially in recent years. In the realm of drug delivery, rheological studies related to hydrogels have emerged as an essential area of investigation. The exploration of hydrogel formulations and their rheological characteristics constitutes a fundamental aspect of this Special Issue, delving into the behavior and mechanical attributes that investigate their functionality.

Hydrogels, due to their unique structural characteristics and responsiveness to environmental stimuli, stand as versatile candidates for use as drug delivery systems. The rheological investigation of these materials often consider their viscoelastic properties, shear-thinning behavior, and gelation kinetics, providing insights into the dynamic interplay of forces governing hydrogel mechanics.

This Special Issue's scope ranges from their fundamental aspects to particular applications. It will discuss the preparation, properties, and rheological characteristics of hydrogels, as well as their practical applications in drug delivery systems.





gels



an Open Access Journal by MDPI

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

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.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [PMC](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q1 (Polymer Science) / CiteScore - Q2 (Polymers and Plastics)

Contact Us

Gels Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/gels
gels@mdpi.com
[X@Gels_MDPI](#)