

Special Issue

Advances of Alginate-Based Hydrogels in Drug Delivery and Encapsulation Technologies

Message from the Guest Editors

Hydrogels are a three-dimensional and crosslinked network of hydrophilic polymers. Among the numerous polymers that have been utilized for the preparation of the hydrogels, polysaccharides have gained more attention in the area of pharmaceutics. Sodium alginate is a non-toxic, biocompatible, and biodegradable polysaccharide with several unique physicochemical properties; it has been used as delivery vehicles for drugs. This Special Issue explores the vital precepts, basic and fundamental aspects of alginates in pharmaceutical sciences, biopharmacology, and encapsulation in the biotechnology industry. The scope of this Special Issue covers novel alginate hydrogel-based systems equipped with nanotechnology with applications in drug delivery, disease modeling, tissue engineering, organs-on-chip, 3D bioprinting, flexible biosensing, and soft robotics, as well as their applications and the interface of these systems with drug screening, genomics, metabolomics, and proteomics for a better understanding of disease formation and progression. We accept original research articles, critical review papers, and commentaries.

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Gels

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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

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 13.5 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).