Special Issue

Marine Biopolymers-Based Hydrogels, Xerogels and Aerogels: Preparation and Applications

Message from the Guest Editors

Marine-biopolymer-based materials such as hydrogels, xerogels, and aerogels have been highly attractive research areas in recent decades for different applications in daily life. They are considered as interesting biomaterials for medical applications due to their good biocompatibility, biodegradability, inexpensiveness, stability, abundance, ease of surface modification, and nontoxic nature. They are also interesting materials for nonmedical applications such as food packaging, water treatment, production of bioplastics, cosmetics, etc., as they possess excellent mechanical, thermal, and biological activities. Numerous marine biopolymers such as alginates, agar, carrageenan, and chitosan have been used as bio-ink in the preparation of different forms of gels using conventional and 3D-printing techniques. This Special Issue will present and discuss different approaches for the preparation, modification, and characterizations of hydrogels, xerogels, and aerogels from marine-based biopolymers for different medical and nonmedical applications.

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Deadline for manuscript submissions

closed (5 November 2023)

Gels

an Open Access Journal by MDPI

Impact Factor 5.3
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/129366

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About the Journal

Message from the Editorial Board

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.

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