

Special Issue

Latest Advances and Prospects of Hydrogels for Biomedical Applications

Message from the Guest Editors

In recent years, hydrogels have received increasing attention as materials for biomedical applications because they are biocompatible and non-toxic. They consist of three-dimensional hydrophilic polymeric networks that can absorb large amounts of water or biological fluids due to the presence of hydrophilic groups, and are considered excellent candidates for biosensors, drug delivery vectors, wound healing, and vectors or cell matrices in tissue engineering. Depending on their characteristics, they can be natural or synthetic and classified as neutral or ionic hydrogels, while the network can consist of linear homopolymers, linear copolymers and block or graft copolymers. They can also be reactive to various stimuli, including heating, pH, light, and chemicals. Furthermore, due to their high biodegradability, low immunogenicity, ability to be transformed into solids, semi-solids, and liquids, and due to their ease of use, they are widely used in biomedicine. This Special Issue covers all aspects concerning recent studies on the design, preparation, and performance evaluation of hydrogels for biomedical applications.

Guest Editors

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Deadline for manuscript submissions

closed (30 April 2025)



Gels

an Open Access Journal
by MDPI

Impact Factor 5.3
CiteScore 10.3
Indexed in PubMed



mdpi.com/si/180084

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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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