Special Issue

Hydrogels in Biomedicine: Drug Delivery and Tissue Engineering

Message from the Guest Editors

Hydrogels have emerged as versatile biomaterials with unique properties—high water content, tunable mechanical behavior, and excellent biocompatibility—that make them ideal for biomedical applications. In recent years, hydrogels have been engineered not only as passive scaffolds but also as active platforms for drug delivery, tissue regeneration, and cellular therapy. This Special Issue will highlight cutting-edge research on hydrogels for drug delivery and tissue engineering, with a special focus on regenerative strategies, neural repair, controlled release systems, and multifunctional hydrogel composites. We welcome contributions covering novel synthesis and characterization methods, in vitro and in vivo performance evaluation, translational approaches, and clinical potential.

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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 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).

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