Special Issue

Cellulose-Based Gels: Synthesis, Properties, and Applications

Message from the Guest Editors

Cellulose-based gels offer exceptional advantages, including biocompatibility, biodegradability, and sustainability. Such features make them promising candidates for diverse applications, spacing from medicine (e.g., tissue engineering and drug delivery) to material science and engineering (e.g., environmental science). These gels can be designed relying on various strategies of chemical and physical crosslinking involving cellulose as such, its derivatives and possibly other blended polymers or composite systems. The resulting cellulose-based gels exhibit a wide spectrum of properties, including tunable mechanical strength, swelling behavior, and responsiveness to environmental stimuli. This Special Issue aims to showcase the latest research and innovations in cellulose-based gels. Topics of interest include novel synthesis techniques, characterization of structural and mechanical properties, exploration of unique functionalities, and investigations into their applications in drug delivery, tissue engineering (e.g., 3D bioprinting), food science, and beyond.

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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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