Special Issue

Recent Advances in Thermoreversible Gelation

Message from the Guest Editors

Thermoreversible gelation is a transition from a sol state to a gel state in solutions of functional molecules, which can be reversed by tuning thermal conditions and external stimuli. Formed gels are three-dimensional polymer networks with non-covalent physical cross-links, which can break and recombine in response to the system parameters such as temperature, concentration, pH, ionic charges, and also to the environmental parameters such as pressure, shear flow, elongation, light, salts, enzymes, antigens, etc. Most gels in nature are thermoreversible gels. They have unique dynamic properties as soft materials, and hence have been noted as one of the most interesting subjects in materials science. This Special Issue focuses on the fascinating gelation transition of polymer solutions, and provides a comprehensive overview of the current state of research on the thermoreversible gelation with original papers and reviews on the most fundamental aspects to recent diverse applications of these exciting materials.

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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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