Special Issue

Rheological Properties and Applications of Gel-Based Materials

Message from the Guest Editors

Gels, composed of crosslinked polymer networks, are integral to fields such as medicine, cosmetics, and the food industry. The physical or chemical crosslinking of the gel system determines the mechanical features and stability and dictates the specific applications of gel-based materials. The mechanism of crosslinking and the interactions among polymers, solvents, and additives in the system play a crucial role in this context. Rheological analysis quantitatively assesses these interactions, revealing how variations in polymer gel composition impact overall performance. This Special Issue of *Gels*, titled “Rheological Properties and Applications of Gel-Based Materials”, delves into the creation of gels through diverse interactions within polymer networks. Papers should provide a deep analysis of the rheological properties of gel-based materials and explore extensive applications aligned with the characteristics, thereby offering valuable insights for optimizing and applying gel-based materials across various industries.

Guest Editors

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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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