Special Issue

Gels in Food Systems: Ingredients for Health, Sustainability and Industrial Innovation

Message from the Guest Editors

In recent years, gel use in food systems has received attention as a promising strategy to address nutritional, structural, and technological challenges.

Interest is developing in the digestive behavior and in vitro/in vivo performance of functional food gels, particularly in their ability to modulate nutrient release and improve bioavailability. Gels also play a pivotal role in products designed to meet specific dietary requirements. In this context, gels also offer opportunities for the valorization of food industry byproducts.

This Special Issue aims to compile original research on innovative approaches to gel use in food applications, including gels' roles as structuring agents, texture modifiers, carriers of functional compounds, or tools for product innovation. A particular focus will be placed on studies concentrating on gels' rheological and stability properties, structure–function relationships, oxidative stability, and sensory aspects.

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Gels

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About the Journal

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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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).

