Special Issue

Food Gels: Formation Mechanisms, Functions, Applications, and Challenges

Message from the Guest Editors

Formed through the three-dimensional network of biopolymers such as proteins and polysaccharides, food gels are essential for tailoring texture, encapsulating bioactives, improving stability, and enabling novel food design. As the industry continues to respond to consumer demand for healthier, plant-based, and functional food products, the importance of understanding gelation mechanisms and functional performance has never been greater.

This Special Issue aims to provide a platform for the latest research on the fundamental and applied aspects of food gels. We invite contributions that explore the mechanisms behind gel formation, structural and rheological characterization, novel gelling agents, the impact of processing technologies, and the functional applications of gels in food systems. Topics may also include innovations in the enhancement of the texture and stability of food gels using polyphenolic extracts and in sustainability in gel formulations.

Guest Editors

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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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