

## Special Issue

# Composite Gel Systems: Materials, Formation Behaviors and Functional Food Packaging Applications

### Message from the Guest Editors

Composite gel-based functional materials for sustainable and functional food packaging applications are becoming a hotspot in research. Recent studies on composite functional films have focused on integrating multiple functionalities—including antimicrobial, antioxidant, barrier, and intelligent sensing mechanisms—into single edible or biodegradable gel matrices. Researchers are actively exploring interpenetrating polymer networks and multi-component delivery systems to improve the mechanical performance, environmental stability, and bioactivity of composite functional films in food preservation.

This Special Issue welcomes research exploring the formation mechanisms of composite gels, structure–function relationships, and the encapsulation and controlled release of active ingredients. Studies addressing multi-layer film architectures, stimulus-responsive behavior, and novel processing strategies (e.g., electrospinning, layer-by-layer assembly, 3D printing) are highly encouraged.

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### Guest Editors

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### Deadline for manuscript submissions

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## Gels

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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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### Editors-in-Chief

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