Special Issue

Current Research on Gelation of Microparticles in Foods: Rheological, Structural and Functional Properties

Message from the Guest Editors

Gels have garnered increasing attention in the food industry, particularly in relation to proteins and polysaccharides, due to their favorable biocompatibility, biodegradability, nutritional properties, and edibility. Additionally, gels serve multiple functions, including thickening, providing structural stability, and enhancing moisture retention, which can extend the shelf life of food products while improving their taste and texture. However, there remains a notable lack of systematic research and exploration regarding the structural quality, rheological properties, physical characteristics, and functionality of gel-based foods. Consequently, enhancing the depth of research into gel foods, as well as investigating the properties, structure–activity relationships, and functional attributes of gels, will significantly impact scientific inquiry and exploration in this area, as well as in product development and other food applications such as packaging, nutrient delivery systems, and food pigments. This field presents promising application prospects and a wealth of theoretical knowledge in areas such as adsorption, bionic food design, and food safety monitoring.

Guest Editors

Dr. Xiaoyang Liu

SKL of Marine Food Processing & Safety Control, National Engineering Research Center of Seafood, Collaborative Innovation Center of Seafood Deep Processing, Liaoning Province Key Laboratory for Marine Food Science and Technology, School of Food Science and Technology, Dalian Polytechnic University, Dalian 116034, China

Dr. Fei Liu

State Key Laboratory of Food Science and Technology, Science Center for Future Foods, School of Food Science and Technology, International Joint Laboratory on Food Safety, Jiangnan University, Wuxi 214122, China

Deadline for manuscript submissions

31 August 2025

Foods

an Open Access Journal by MDPI

Impact Factor 5.1
CiteScore 8.7
Indexed in PubMed

mdpi.com/si/230801

Foods
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
foods@mdpi.com

mdpi.com/journal/foods

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Message from the Editor-in-Chief

Foods (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, Foods has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

Editor-in-Chief

Prof. Dr. Arun K. Bhunia
1. Department of Food Science, Purdue University, West Lafayette, IN 47907, USA
2. Department of Comparative Pathobiology, Purdue University, West Lafayette, IN 47907, USA

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