Special Issue

Study on the Effects of Food Freezing and Microencapsulation Techniques on Physicochemical Properties of Food

Message from the Guest Editors

Food freezing and microencapsulation are most common and cost-effective techniques used in food processing for extending the shelf life and retaining the flavour of food materials. To engineer effective and efficient food processes related to these two operations, it is important to establish a good understanding of changes during freezing and microencapsulation, and of the underlying mechanisms. Most of the applied micro-encapsulation techniques are based on modifications of three basic methods: spray-drying, phase separation (coacervation), and solvent extraction/evaporation. The mathematical description of physiochemical changes through appropriate models is the focus of current studies to ensure optimum frozen-product quality from processing to final use or consumption. The modelling and optimization of freezing operation parameters, as well as novel freezing and microencapsulation methods applied to improve quality retention, process efficiency, and energy requirements, are also areas of current research.

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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.

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