Special Issue

Influence of Physical Processing Technology on Physicochemical Properties and Active Components of Agro-Products

Message from the Guest Editors

The physical processing of agro-products plays a crucial role in determining their physicochemical properties and the retention of active components. Conventional techniques often involve high temperatures that can degrade nutrients and affect flavor, color, and texture. To address these challenges, innovative technologies, such as ultra-high pressure, ultrasound technology, pulsed electric fields, cold plasma, radio frequency, and electron beam, have emerged as promising alternatives. We will delve into the fundamentals of physical processing technologies, including their principles, mechanisms, equipment, and process parameters. We will also examine their applications across various food categories, including meat, dairy, fruits, vegetables, seafood, cereals, aquatic products, algae, edible fungi, by-products of the food processing industry, and new resource foods, focusing on their impacts on microbial inactivation, enzyme inhibition, texture enhancement, shelf-life extension, and nutrient preservation. Additionally, we will explore the combination of different food processing techniques to achieve synergistic or complementary effects on food quality and safety.

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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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