

Special Issue

Metabolomics in Food Processing: Physicochemical Properties, Quality Formation, and Nutritional Function

Message from the Guest Editors

The SI examines the biochemical transformations that occur during food processing and their effects on quality, nutrition, and functionality. By analyzing metabolites on a large scale, metabolomics enables the identification and quantification of these compounds, offering a deeper insight into how processing methods—such as heating, fermentation, drying, and enzymatic treatment—modify food components at the molecular level. This Special Issue investigates how these changes influence physicochemical properties, along with sensory characteristics like taste and aroma. It highlights key metabolic pathways and biomarkers that contribute to quality formation and nutrient retention, offering strategies to optimize food processing techniques. Leveraging metabolomics can enhance processing methods to improve food quality, prolong shelf life, and create functional foods with superior nutritional value. This collection serves as a valuable resource for researchers and industry professionals striving to advance food production while maintaining essential nutrients and promoting consumer health.

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About the Journal

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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