

## 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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### Guest Editors

Dr. Cristina Manis

Department of Life and Environmental Sciences, Università degli Studi di Cagliari, Cagliari, Italy

Prof. Dr. Pierluigi Caboni

Department of Life and Environmental Sciences, University of Cagliari, 09042 Cagliari, Italy

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### Deadline for manuscript submissions

closed (31 October 2025)



## Foods

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*Foods*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[foods@mdpi.com](mailto:foods@mdpi.com)

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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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### 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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