Special Issue

Applications of Mass Spectrometry in Food Analysis

Message from the Guest Editors

Mass spectrometry (MS) has become one of the most powerful and versatile tools in contemporary food science and is now widely recognized as an essential analytical technique in this field. Technological advancements and MS integration with chromatographic separation and bioinformatics have broadened its application across food science, including targeted and untargeted approaches. MS, with its unparalleled sensitivity, precision, and ability to resolve complex molecular profiles, underpins advances in food quality, safety, and authenticity. Applications include characterizing intricate flavor and bioactive compounds, detecting and quantifying trace contaminants, and identifying food adulteration. This Special Issue of Foods welcomes cutting-edge research on the application of MS in food science. We invite studies on targeted quantitation, structural characterization, and comprehensive omics-based profiling of food components. We particularly encourage submissions that advance understanding and foster innovation in MS-enabled food safety, quality, and authenticity, and that critically address current challenges while proposing emerging solutions.

Guest Editors

Dr. Andreia Bento Silva

Research Institute for Medicines (iMed.ULisboa), Faculty of Pharmacy, Universidade de Lisboa, 1649-003 Lisbon, Portugal

Dr. Elsa Mecha

 iBET, Instituto de Biologia Experimentale Tecnologica, Av. da República, Apartado 12, 2781-901 Oeiras, Portugal
Instituto de Tecnologia Químicae Biológica António Xavier, Universidade Nova de Lisboa, Av. da República, 2780-157 Oeiras, Portugal

Deadline for manuscript submissions

20 June 2026



Foods

an Open Access Journal by MDPI

Impact Factor 5.1 CiteScore 8.7 Indexed in PubMed



mdpi.com/si/261023

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

mdpi.com/journal/ foods





Foods

an Open Access Journal by MDPI

Impact Factor 5.1 CiteScore 8.7 Indexed in PubMed



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.

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 Lafavette. IN 47907. USA

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, FSTA, AGRIS, PubAg, and other databases.

Journal Rank:

JCR - Q1 (Food Science and Technology) / CiteScore - Q1 (Health Professions (miscellaneous))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

