Special Issue

Securing the Food Future: Emerging Analytical Strategies for Safety and Sustainability

Message from the Guest Editors

Global food security increasingly depends on our ability to ensure the safety, authenticity, and nutritional quality of foods while minimizing waste and maximizing resource efficiency. In an era challenged by climate change, environmental degradation, and disrupted supply chains, the food sector must adopt a holistic and science-driven approach integrating advanced analytical chemistry, sustainable valorization, and circular bioeconomy principles. This Special Issue explores cutting-edge analytical strategies that underpin the safety, quality, and sustainability of modern food systems. The topics of interest include highresolution mass spectrometry (LC-HRMS and GC-MS/MS), molecular and vibrational spectroscopy (FT-IR, Raman, and NMR), omics-based profiling, isotopic tracing, chemometric modeling, and machine learning for food authentication and traceability. Contributions addressing real-time and portable sensing, nanotechnology-enabled analysis, and green analytical methodologies are strongly encouraged.

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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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