

Special Issue

Application of Artificial Intelligence and Machine Learning in Food Analysis

Message from the Guest Editor

As the world faces escalating demands for efficient food production, equitable distribution, and innovative resource management, AI-driven and ML-driven technologies offer unprecedented opportunities for revolutionizing food analysis across the entire supply chain—from cultivation and processing to quality control and consumption. This Special Issue seeks to explore cutting-edge advancements, methodologies, and applications of AI and ML in food science, with a focus on enhancing precision, scalability, and sustainability. This Special Issue invites original research, reviews, and case studies on topics including, but not limited to, the following: AI- and ML-enhanced food quality evaluation and safety assessment; Intelligent sensor networks and real-time monitoring; Integration of remote sensing and big data analytics in food supply chains.

By fostering interdisciplinary dialogue, this Special Issue aims to advance the frontier of AI and ML in food science, ultimately contributing to a more secure and sustainable global food ecosystem. We look forward to your submissions.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2025)



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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.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).