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, Al-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: Al- 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

Dr. Shuxiang Fan School of Technology, Beijing Forestry University, Beijing, China

Deadline for manuscript submissions

31 December 2025



Foods

an Open Access Journal by MDPI

Impact Factor 5.1
CiteScore 8.7
Indexed in PubMed



mdpi.com/si/232684

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).

