

## Special Issue

# Application of Emerging Nonthermal Technologies in the Food Industry

### Message from the Guest Editors

In the past, thermal processing technologies were widely used to sterilize and enhance the flavor of food. However, during thermal processing, some toxic substances such as acrylamide and furan are easily released, which are considered to be carcinogens by the WHO. Recently, emerging nonthermal processing technologies, such as high-pressure processing, radiation, pulsed electric fields, pulsed light, and cold plasma, have been found to largely ensure the quality and freshness of foods, especially to avoid the generation of carcinogens. In addition, nonthermal technologies have been used to extract active substances from fruit, vegetables, and industrial crop residues, which facilitate the utilization of food and its byproducts. Current studies focus on combination treatment which may be a more effective processing technique for the food industry. Clarifying the mechanisms, optimizing the processes, producing industrial scale equipment, analyzing potential risks, and designing safety rules will be essential for promoting nonthermal processing technologies in the future. Prof. Dr. Han Zhong

---

### Guest Editors

Prof. Dr. Zhong Han

College of Food Sciences and Engineering, South China University of Technology, Guangzhou 510640, China

Prof. Dr. Xinan Zeng

College of Food Sciences and Engineering, South China University of Technology, Guangzhou 510640, China

---

### Deadline for manuscript submissions

closed (30 September 2022)



## Foods

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.1  
CiteScore 8.7  
Indexed in PubMed



[mdpi.com/si/102522](https://mdpi.com/si/102522)

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

[mdpi.com/journal/  
foods](https://mdpi.com/journal/foods)





# Foods

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.1  
CiteScore 8.7  
Indexed in PubMed



[mdpi.com/journal/  
foods](https://mdpi.com/journal/foods)



## 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 Lafayette, 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 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).