

Special Issue

Applications of Computer Science and AI to Fermented Foods and Beverages

Message from the Guest Editor

Fermentation is a traditional metabolic process that humans have used for thousands of years to create various foods and beverages. Biochemically, fermentation involves using microorganisms like yeast to convert carbohydrates into alcohols or acids, producing a range of flavor compounds. These compounds are essential to fermented products such as wine, beer, yogurt, miso, kimchi, and more. To enhance the aroma and flavor of these products, extensive experimentation with different recipes and components is necessary. Additionally, understanding the final fermented products often requires evaluating their physicochemical and sensory characteristics from various sources. These research activities generate data in multiple formats, including numerical, categorical, machine-readable, and natural language. Applying computer science and AI to these diverse datasets has significant potential to uncover new insights and hidden knowledge in fermented products.

This Special Issue invites reviews and original research articles exploring the application of computer science and AI to fermented foods and beverages.

Guest Editor

Dr. Bernard Chen

Department of Computer Science and Engineering, University of Central Arkansas, Conway, AR 72034, USA

Deadline for manuscript submissions

31 December 2025



Fermentation

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 5.7



mdpi.com/si/216863

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

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





Fermentation

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 5.7



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



About the Journal

Message from the Editor-in-Chief

Welcome to a new open access journal, Fermentation, which meets the growing need for a high quality peerreviewed international journal with easy access to all researchers globally. We hope that you will share our enthusiasm for this new journal and look forward to working with you to make Fermentation a leader in its field. Your contributions are vital for the success of this new journal. Proposals for editing a special issue for a particular topical area are always welcome.

Editor-in-Chief

Prof. Dr. Christian Kennes
Department of Chemical Engineering, Faculty of Sciences, University of
La Coruña, La Coruña, Spain

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubAg, FSTA, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Biotechnology and Applied Microbiology) /
CiteScore - Q1 (Plant Science)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.5 days after submission; acceptance to publication is undertaken in 3.9 days (median values for papers published in this journal in the first half of 2025).