

# Special Issue

## Resource Utilization of Microorganisms: Fermentation and Biosynthesis

### Message from the Guest Editor

Microorganisms serve as pivotal biocatalysts in sustainable biomanufacturing, driving innovations in resource efficiency and economic viability. This Special Issue explores cutting-edge advances in microbial resource utilization, fermentation optimization, synthetic biology, and sustainability utilization to enhance biosynthesis pathways for high-value products. This Special Issue focuses on maximizing the resource potential of industrial microorganisms through integrated approaches in fermentation and biosynthesis. Studies on fermentation process engineering, covering nutrient formulation, bioreactor operations, and environmental control will be featured. Additionally, we seek papers exploring advances in strain improvement using synthetic biology tools for producing enzymes, therapeutics, and natural compounds, including metabolic engineering, chassis cell design, heterologous expression systems, and cell-free biosynthesis. Research on circular bioeconomy strategies, such as microbial waste recycling and clean production technologies, is also welcomed.

### Guest Editor

Prof. Dr. Shoushuai Feng

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### Deadline for manuscript submissions

31 December 2025



**Microorganisms**

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## About the Journal

### Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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### Editor-in-Chief

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indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, CAPlus / SciFinder, AGRIS, and other databases.

#### Journal Rank:

JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).