

Special Issue

Microfluidics Applications in Microbiology

Message from the Guest Editors

We are pleased to invite you to contribute to this Special Issue of *Micromachines* entitled "Microfluidics Applications in Microbiology". Microfluidics has revolutionized how we manipulate, analyze, and understand microbial systems. The ability to handle minute volumes of fluids with high precision has enabled researchers to probe microbial behaviors at the single-cell level, construct high-throughput screening platforms, and mimic complex environmental conditions *in vitro*. These advancements are unlocking new possibilities in microbiome research, infectious disease diagnostics, environmental monitoring, and antimicrobial drug discovery. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to):

- Microfluidic platforms for microbial cultivation and screening;
- Droplet microfluidics for single-cell microbiology;
- Microbial co-culture and interaction studies on chip;
- Point-of-care systems for pathogen detection;
- Microfluidics-enabled synthetic microbiology and metabolic engineering;
- Antibiotic discovery using microfluidics.

Guest Editors

Dr. Xiangpeng Li

Department of Chemistry & Biochemistry, Florida State University,
Tallahassee, FL 32306, USA

Dr. Fangchao Song

Lawrence Livermore National Laboratory, 7000 East Ave, Livermore,
CA 94550, USA

Deadline for manuscript submissions

closed (31 May 2026)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/237642

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

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





Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Nam-Trung Nguyen

Queensland Quantum and Advanced Technologies Research Institute,
Griffith University, West Creek Road, Nathan, QLD 4111, Australia

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2025).