

Special Issue

Droplet Microfluidics: Fundamentals and Its Advanced Applications

Message from the Guest Editor

Droplet-based microfluidics has been utilized in many innovative approaches in the biology, biomedical, and microbiology research fields due to its unique advantages over the decades. This system possesses excellent biocompatibility with encapsulated cells in microdroplets and many biological reagents. One application is that millions of functional screenings of individual cells in a spatially segregated microenvironment are assayed with one mL of emulsion by being used with fluorescent protein expression. The isolation of specific target cells among the population can be achieved by utilizing high-throughput fluorescent active droplets sorting or standard fluorescence-activated cell sorters. Accordingly, this Special Issue seeks to showcase research papers and review articles that focus on the fundamentals of microdroplet formation as well as novel microdroplets applications.

Guest Editor

Dr. Seokju Seo

Department of Biosciences, Rice University, George R. Brown Hall
W200I, Houston, TX, USA

Deadline for manuscript submissions

closed (30 November 2023)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/121363

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.

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).