

Special Issue

Recent Advances in Magnetic Micro/Nano-Manipulation

Message from the Guest Editors

The ability to manipulate micro/nano objects is of paramount importance for a wide range of applications. Over the past decades, researchers have made significant progress in developing various manipulation methods using different types of external fields. Among these methods, magnetic manipulation has garnered considerable attention due to its wireless nature, high controllability, and versatile forms of magnetic fields, making it a highly explored technology with promising applications in separation, mixing, assembly, and robotics. Despite the substantial advancements made in this field, there remains substantial scope for further development in terms of high-performance magnetic tools, multifunctional actuation strategies, and a deeper understanding of the manipulation process. As a result, we are delighted to announce this Special Issue, soliciting original research papers and review papers that delve into the applications, fundamentals, design, and underlying mechanisms of the magnetic manipulation of micro/nano objects. Submissions exploring analytical, numerical, and experimental analyses are all welcome. We look forward to receiving your submissions.

Guest Editors

Prof. Dr. Quanliang Cao

Wuhan National High Magnetic Field Center & State Key Laboratory of Advanced Electromagnetic Engineering and Technology, Huazhong University of Science and Technology, Wuhan 430074, China

Dr. Shaowei Ouyang

Wuhan National High Magnetic Field Center & State Key Laboratory of Advanced Electromagnetic Engineering and Technology, Huazhong University of Science and Technology, Wuhan 430074, China

Deadline for manuscript submissions

closed (31 August 2024)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/181739

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).