



Acoustic Micro/Nano Manipulation and Its Applications

Guest Editors:

Dr. Ye Ai

Pillar of Engineering Product
Development, Singapore
University of Technology and
Design, 8 Somapah Road,
Singapore 487372, Singapore

Dr. Xiaolong Lu

State Key Laboratory of
Mechanics and Control of
Mechanical Structures, Nanjing
University of Aeronautics and
Astronautics, Nanjing 210016,
China

Dr. Zhichao Ma

Institute of Medical Robotics,
School of Biomedical
Engineering, Shanghai Jiao Tong
University, No. 800 Dongchuan
Road, Shanghai 200240, China

Deadline for manuscript
submissions:

closed (30 August 2023)

Message from the Guest Editors

Dear Colleagues,

Acoustic micro/nano manipulation, on the basis of its various nonlinear acoustic effects (e.g., acoustic radiation force, acoustic streaming, and acoustic cavitation), leverages acoustic momentum to precisely control objects or fluids at the micro/nanoscale. It has the advantages of good biocompatibility, wide tunability, excellent transmission through biological tissues, and broad accessibility, and thus is preferred for many applications in fields such as biochemical analysis, medical therapy, and environmental science. In recent years, many interdisciplinary developments have been seen in this area (e.g., acoustic metamaterials, additive manufacturing, sonochemistry, ultrasound modulation, etc.), which continue to advance the performance and adaptability of acoustic micro/nano manipulation.

This Special Issue seeks to present research articles, communications, and review articles focused on acoustic micro/nano manipulation from varied perspectives of fundamental principles, system designs, and applications.

We look forward to receiving your submissions.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Ai-Qun Liu

1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

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

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

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)

Contact Us

Micromachines Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/micromachines
micromachines@mdpi.com
[X@micromach_mdpi](https://x.com/micromach_mdpi)