



Advanced Fluidic Microcomponents and Microsystems

Guest Editors:

Dr. Younes Amini

Nuclear Fuel Cycle Research
School, Nuclear Science and
Technology Research Institute,
Tehran P.O. Box 11365-3486, Iran

Dr. Mohsen Sheikholeslami

Department of Mechanical
Engineering, Babol Noshirvani
University of Technology, Babol
47148-71167, Iran

Dr. Behzad Vaferi

Chemical Engineering, Shiraz
Branch, Islamic Azad University,
Shiraz 5157944533, Iran

Deadline for manuscript
submissions:

closed (20 March 2023)

Message from the Guest Editors

Dear Colleagues,

There have been long-standing efforts to develop continuous micro-scale fluidic devices for a variety of applications in biology, chemistry, and engineering. Such efforts, incorporated in the science and technology of microfluidics, involve the study of the behaviors of fluids in channels with typical dimensions of tens to hundreds of micrometers, where surface and hydrodynamic effects dominate the effects of gravity. The known advantages of microstructured devices in intensifying chemical processes are the low consumption of the sample, high heat and mass transfer rates owing to the enhanced surface-area-to-volume ratio, and the significantly reduced diffusion distances that are not usually observed at macroscale.

Accordingly, this Special Issue seeks to showcase research papers and review articles that focus on novel methodological developments in fluidic microcomponents and microsystems:

- microfluidic system
- chemical process in microchannels
- modeling and simulation of micro-systems
- experimental investigation of micro-systems





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)