



Lipid Bilayers on Chip

Guest Editor:

Dr. Toshihisa Osaki

Artificial Cell Membrane Systems
Group, Kanagawa Institute of
Industrial Science and
Technology, 3-2-1 Sakado,
Takatsu-ku, Kawasaki, Kanagawa
213-0012, Japan

Deadline for manuscript
submissions:

closed (15 November 2020)

Message from the Guest Editor

Lipid bilayers are one of the fundamental models of biological membranes. Over the past 15 years, microfluidics and MEMS technologies have been exploited for precise manipulation of the lipid materials and made great contributions to produce planar and vesicular forms of lipid membranes in a controlled and reproducible manner; for example, planar lipid bilayers were suspended at a micrometer-sized aperture fabricated by a photolithography process, supported lipid bilayers were formed on a surface-modified microfluidic channels, and lipid vesicles were produced by traversing droplets from oil to an aqueous phase. This advancement in planar membranes and vesicles has further extended their research fields in exploration of the fundamental properties of cell membranes, creation of bottom-up synthetic cells, development of a drug screening system for cell membranes, and integration of membrane receptors for chemical sensors.





Editor-in-Chief

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 (*Chemistry, Analytical*) / CiteScore - Q2 (*Mechanical Engineering*)

Contact Us

Micromachines Editorial Office
MDPI, St. Alban-Anlage 66
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)