



Delft University of Technology

## Microfluidics for Biophysical Studies on Artificial Lipid Membranes

Yahyazadeh Shourabi, A.

### DOI

[10.4233/uuid:57912020-277b-421c-a25c-f4340f23ee3c](https://doi.org/10.4233/uuid:57912020-277b-421c-a25c-f4340f23ee3c)

### Publication date

2025

### Document Version

Final published version

### Citation (APA)

Yahyazadeh Shourabi, A. (2025). *Microfluidics for Biophysical Studies on Artificial Lipid Membranes*. [Dissertation (TU Delft), Delft University of Technology]. <https://doi.org/10.4233/uuid:57912020-277b-421c-a25c-f4340f23ee3c>

### Important note

To cite this publication, please use the final published version (if applicable).  
Please check the document version above.

### Copyright

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

### Takedown policy

Please contact us and provide details if you believe this document breaches copyrights.  
We will remove access to the work immediately and investigate your claim.

# Propositions

accompanying the dissertation

## **Microfluidics for Biophysical Studies on Artificial Lipid Membranes**

by

**Arash Yahyazadeh Shourabi**

1. Precisely designed microfluidic chips enable the handling of complex processes on flaccid lipid bilayers.

*This proposition pertains to the dissertation (chapters 2-4).*

2. Lipid bilayer studies are sensitive to the experimental setup.

*This proposition pertains to the dissertation (chapters 5-7).*

3. Even a slight lipid tail asymmetry significantly alters the properties of a bilayer.

*This proposition pertains to the dissertation (chapter 6).*

4. Less common lipid compositions (e.g. PMPC) should be used more often in biophysical studies on biomembranes, as they may exhibit fewer stability issues compared to the frequently used compositions (e.g. DOPC).

*This proposition pertains to the dissertation (chapter 6).*

5. Diversity and inclusion are essential for any group tracking complex, multifaceted challenges.

6. Continuous active learning sustains motivation throughout the journey.

7. Academia is not evolving at the pace of the changing world.

8. Graduate schools should offer practical industry-focused courses like business/project management to prepare scientists for careers beyond academia.

9. Time is not your enemy; it helps to drive the process forward.

10. Scientific papers should strive to be more transparent and interactive.

These propositions are regarded as opposable and defensible, and have been approved as such by the promoters Dr. M.-E. Aubin-Tam and Prof. Dr. G. H. Koenderink