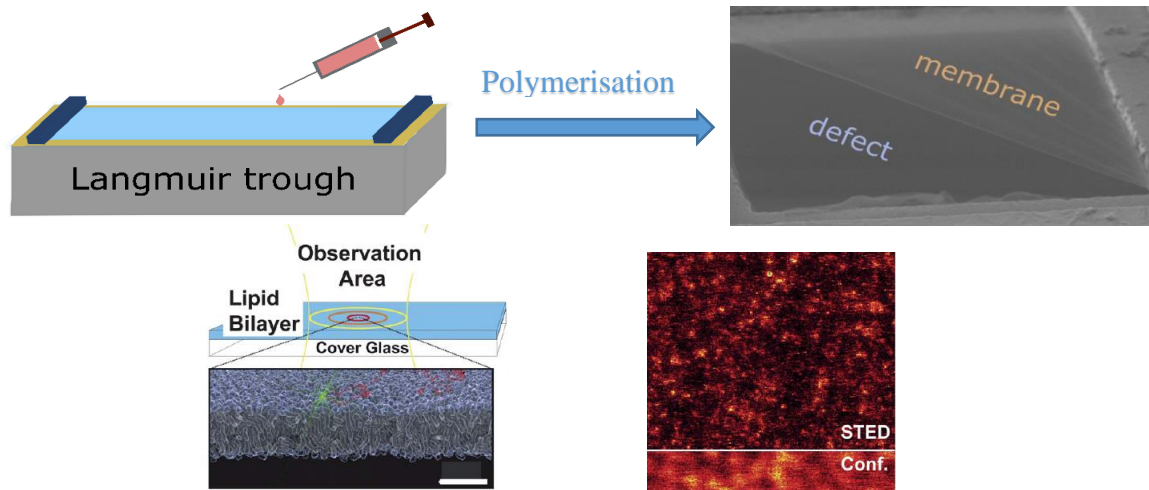


Master Thesis

In the groups „Superresolution Microscopy“ at „Institut für Angewandte Optik und Biophysik“, FSU-Jena, and „Organic Thin Films and Interfaces“ at Leibniz Institute of Photonic Technology (Leibniz IPHT)

High-resolution fluorescence microscopy for the determination of fluidity in cell membrane models

In pharmaceuticals and medicine, cell membrane models are essential for the study of pharmacological processes. The function of cell membranes depends on their fluidity, which can be controlled by additives and the manufacturing parameters. Within the scope of the master thesis, systematically varied cell membranes will be prepared and the influence of the manufacturing parameters and cell membrane composition on the fluidity of the cell membrane models will be investigated by means of high-resolution fluorescence microscopy.



Your tasks

- Familiarization with the Langmuir-Blodgett (LB) technique and high-resolution microscopy
- Preparation of LB membranes from systematically varied lipid-dye mixtures
- Characterization of the membrane
 - microscopic (optical, scanning electron microscopy)
 - UV-vis absorption spectroscopy
 - advanced fluorescence microscopy techniques

If you are interested in these topics, please contact PD Dr. habil. Martin Presselt (martin.presselt@leibniz-ipht.de) or Prof. Dr. Christian Eggeling (christian.eggeling@uni-jena.de).

Mitglied der