



Contribution ID: 31

Type: Talk

【701】 Robust Biosensors explained: Focal Molography and the Concept of a Spatial Affinity Lock-in Amplifier

Tuesday, August 31, 2021 1:30 PM (30 minutes)

We present the concept of the spatial affinity lock-in amplifier to reject environmental noise in label-free biosensing at the example of focal molography. Molography is a sensitive and robust implementation of a diffractometric biosensor and has emerged as a new platform technology to study biomolecular interactions label-free in complex fluids and living cells. Molography is insensitive to environmental noise (temperature gradients and nonspecific binding). It achieves this by modulating the analyte binding at a high spatial frequency and reads it out in Fourier space via diffraction of light at the bound molecules. We will end with an outlook on applications that may be enabled by the spatial lock-in principle.

Primary author: FRUTIGER, Andreas (lino Biotech AG)

Presenter: FRUTIGER, Andreas (lino Biotech AG)

Session Classification: Biophysics, Medical Physics and Soft Matter

Track Classification: Biophysics, Medical Physics and Soft Matter