Contribution ID: **25** Type: **not specified**

Following the Formation of Metal Electrodes for Organic Photovoltaics

Tuesday, 20 June 2017 11:00 (20 minutes)

With their easy processability, high flexibility and tunable optical properties, organic photovoltaics offer a wide range of potential applications. Although based on organic materials, photovoltaic devices typically contain metal contacts due to their unrivaled electronic conductivity. These contacts have a major influence on the solar cell performance. Our work focuses on the nanostructure evolution of metal-polymer interfaces inherent in organic solar cells. We follow the morphological changes during the sputter deposition of metal electrodes onto photoactive layers using in-situ GISAXS and GIWAXS. This technique allows us to investigate the deposition process with a high spatial as well as temporal resolution. Comparing the deposition behavior of typical electrode materials (such as Au or Al) on thin films of photoactive organic materials (e.g. PTB7) helps to understand their influence on the respective photovoltaic performance.

Primary author: Ms LÖHRER, Franziska (TU München, Physik-Department, LS Funktionelle Materialien)

Co-author: Prof. MÜLLER-BUSCHBAUM, Peter (TU München, Physik-Department, LS Funktionelle Materialien)

Presenter: Ms LÖHRER, Franziska (TU München, Physik-Department, LS Funktionelle Materialien)

Session Classification: Parallel Session