

OPTEXC *invited speaker series*

Microstructure formation in solution-processed semiconducting polymer thin films

In this presentation I will discuss how the solution-phase behaviour of semiconducting polymers affects the resulting microstructure of solution-cast thin films. A focus will be placed on the n-type naphthalene dimide-based polymer P(NDI2OD-T2), which exhibits a rich microstructure and good performance in field-effect transistors and polymer solar cells. It will be shown that the nature and extent of the pre-aggregation of P(NDI2OD-T2) chains in solution, as influenced by molecular weight, solvent quality and temperature, is critically important in facilitating the correlated ordering of backbones in thin films, which in turn is needed for effective long-range charge transport. **

Date: Wednesday, 08th November 2023 | time: 2 pm | Raum: H9 (NWI)

