

## CPP 31: Keynote Lecture II

Time: Wednesday 9:30–10:00

Location: ZEU 222

**Invited Talk**

CPP 31.1 Wed 9:30 ZEU 222

**Using classical polymer science tools to manipulate phase transformations, solid-state order and properties of semiconducting plastics – and beyond** — •NATALIE STINGELIN — Georgia Institute of Technology

In the past decade, significant progress has been made in the field of functional plastics such as polymeric semiconductors, ion conductors and piezoelectric polymers, with many new opportunities arising in the field of bioelectronics, energy harvesting and storage, organic elec-

tronics and photonics, and beyond. Here, examples are given of how classical polymer science tools can be utilized to gain further understanding of (multi-)functional polymers and how the physical organization, from the molecular to the macroscale of such macromolecular matter can be controlled. To this end, we present a survey on the principles of structure development from the liquid phase of this materials family with focus on how to manipulate their phase transformations and solid-state order to tailor and tune the final morphology towards technological and practical applications.