Beitrag ID: **10** Typ: **Poster**

Strong stretching theory of polydisperse curved polymer brushes

We investigate the effect of polydispersity on the properties of curved linear brushes in good solvent and for molten brushes. To this end, we extend the strong stretching theory for polydisperse brushes to curved geometries and investigate the polymer chain end profiles, bending moduli and other properties for experimentally relevant polymer chain length distributions of the Schulz-Zimm type. We also investigate the properties of End Exclusion Zones (EEZ) that may appear in convex geometries under certain conditions, and show that their position in the brush can be engineered by careful selection of the polymer length distribution. Lastly, we propose a method to engineer chain end profiles by engineering the polymer length distribution.

Hauptautor: GIANNAKOU, Marios (University of Mainz)

Co-Autoren: Prof. BORISOV, Oleg (Institut des Sciences Analytiques et de Physico-Chimie pour l'Environnement et les Materiaux); Prof. SCHMID, Friederike (University of Mainz)

Vortragende(r): GIANNAKOU, Marios (University of Mainz)