



Polymers under Multiple Constraints

Polymer- & Soft-Matter-Seminar

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**TUESDAY,
30th May 2017**

at: 5.15pm

**VDP4 1.27,
Von-Danckelmann-Platz 4,
06120 Halle**

“Inducing β phase crystallinity in poly(vinylidene fluoride) via synthetic strategies or nanoparticle formation”

Poly(vinylidene fluoride) (PVDF) shows 5 crystalline phases, with the β phase being associated with piezo, pyro- and ferroelectric properties. Since synthesis and processing of PVDF generally yields the α phase, special treatment is required to yield β phase material. For example, supercooling, pressure or mechanical treatment lead to the occurrence of β phase material. Recently, we showed that the synthesis of block copolymers containing one PVDF block may lead to PVDF in its β phase. Moreover, PVDF nanoparticles obtained from rapid expansion from supercritical solution show β phase crystallinity. IR and XRD analyses confirm the presence of PVDF in its β phase.