



Polymers under Multiple Constraints

Polymer- & Soft-Matter-Seminar

**Tuesday,
20th October
2015**

at: 5.15pm

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

Prof. Dr. Jörg Tiller

(TU Dortmund, Lehrstuhl für Biomaterialien und Polymerwissenschaften)

“Shape Memory Natural Rubber (SMNR) - A Smart Material”

Lowly cross-linked natural rubber forms crystals upon strain that are stable at room temperature and thus stabilize the stretched state until heat in the region of body temperature is applied. Thus, SMNR is so far the only cold programmable shape memory polymer. Since the crystals and the amorphous state can be altered in the stretched form, programmed SMNR is additionally reacting to environmental signals such as various chemical vapors, sensing and memorizing them, and reacting to those.