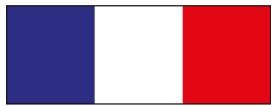


French - German opportunities of cooperation to face the European revolution in neutron science



Contribution ID: 20

Type: **Poster**

Water dynamics in a concentrated poly(N-isopropylacrylamide) solution at variable pressure

Wednesday 15 May 2019 20:41 (20 minutes)

Using quasi-elastic neutron scattering, we study the pressure-dependent hydration behavior of an aqueous poly(N-isopropylacrylamide) solution during heating through its cloud point (CP). At high pressure, the hydration water diffuses more rapidly than at low pressure, which indicates enhanced hydrophobic hydration. An abrupt dehydration, mainly of the hydrophobic groups, is observed at the CP at low pressure, whereas both hydrophilic and hydrophobic groups dehydrate gradually at high pressure.

Authors: Mr NIEBUUR, Bart-Jan (TU München, Physik-Department, Fachgebiet Physik weicher Materie); LOHSTROH, Wiebke; Dr APPAVOU, Marie-Sousai (Jülich Centre for Neutron Science (JCNS) at Heinz Maier-Leibnitz Zentrum (MLZ), Forschungszentrum Jülich GmbH); SCHULTE, Alfons (University of Central Florida); PAPADAKIS, Christine (Technische Universität München, Physik-Department, Fachgebiet Physik weicher Materie)

Presenter: Mr NIEBUUR, Bart-Jan (TU München, Physik-Department, Fachgebiet Physik weicher Materie)

Session Classification: Bavarian buffet and Poster session