

**THU3C: Joint Biological Physics & Life Sciences and Polymer Physics X**

Chaired by K. Prochazka, Charles University, Prague, Czech Republic

Time: Thursday 14:40–16:20

Location: Aula Conversi

**Invited talk**

THU3C.1 14:40 Aula Conversi

**Dynamics of Asymmetric Polymer Blends** — ●JUAN COLMENERO — Centro de Fisica de Materiales (CSIC-UPV/EHU), Apartado 1072, 20080 San Sebastian, Spain

Miscible polymer blends where the two components have very different time scales for segmental dynamics (dynamic asymmetry) show very peculiar dynamic features. Here we summarize the results obtained by neutron scattering and molecular dynamics simulations.

THU3C.2 15:20 Aula Conversi

**Kinetics of Intramolecular Contact Formation in Disordered Peptides and Unfolded Proteins** — ●MARCO BUSCAGLIA, ANDREA SORANNO, and TOMMASO BELLINI — Dipartimento di Chimica, Biochimica e Biotecnologie per la Medicina, Università degli Studi di Milano, via F.lli Cervi 93, 20090 Segrate (Milano), Italy

Quenching of the triplet state of tryptophan after nanosecond laser excitation is used to probe the rate of intra-chain contact formation in disordered peptides and in the unfolded

state of simple proteins.

THU3C.3 15:40 Aula Conversi

**Predictive Monte Carlo: Multipoles Meet Equations Of State** — ●FRANK HEILMANN — BASF SE, 67056 Ludwigshafen, Germany

Bead-spring models including multipoles for monomers/oligomers are presented. Pure substance data is reproduced extremely accurately. Mixture data is predicted. Monte Carlo simulations are mapped onto an equation of state. Density-of-states-based MC is employed.

THU3C.4 16:00 Aula Conversi

**Molecular visualization of polymer crystal growth** — ●WENBING HU — School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China

We report molecular simulations of polymer crystal growth exhibiting molecular segregation, regime transitions, self-poisoning, and co-crystallization of binary mixtures of different chain lengths, which provide us more insights into the kinetics of polymer crystal growth.