

Abstract Submitted  
for the MAR10 Meeting of  
The American Physical Society

**Polymer dynamics at the solid-liquid interface** CHANGQIAN YU, SUBHALAKSHMI KUMAR, JANET S. WONG, SUNG CHUL BAE, STEVE GRANICK, Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign — Novel experimental platforms of few-molecule fluorescence spectroscopy, especially FCS (fluorescence correlation spectroscopy) and FRET (Förster resonance energy transfer) are used to study how polymers diffuse in the adsorbed state. We quantify how the translational diffusion coefficient depends on chain length, surface coverage and surface heterogeneity. Experiments in progress, using FRET, seek to quantify how the end-to-end distance in the adsorbed state compares to its value in free solution.

Changqian Yu

Date submitted: 20 Nov 2009

Electronic form version 1.4