

Abstract Submitted
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Surfaces and polymers: The dynamics of intimacy SUBHALAKSHMI KUMAR, CHANGQIAN YU, University of Illinois, Urbana Champaign, JANET WONG, Imperial College London, LIANG HONG, Dow Chemicals, SUNG CHUL BAE, STEVE GRANICK, University of Illinois, Urbana Champaign — The dynamics of a hydrophobic polymer melt, well above its glass transition, is probed when it is confined to thicknesses of a few nanometers. The ability of the surface forces apparatus to produce controlled thin films is coupled with measurements using fluorescence recovery after photobleaching technique. Insight into the effects of degree of confinement on diffusion of the polymer molecules and heterogeneity in their dynamic behavior is sought.

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