

Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Effects of Confinement on Tethered Chains JOHN MCCOY, TITUS ISPIRESCU, New Mexico Tech, JOHN CURRO, Sandia National Laboratories — Density Functional Theory (DFT) is used to analyze tethered Bead-Spring Chains. Previous work has demonstrated the ability of DFT to accurately predict both the density profiles of and colloidal force generated by such chains as compared to the results of computer simulation. In addition, the chains are found to display a collapse transition as a function of either surface coverage or temperature. In the current work, we explore the additional effect of confinement on the collapse transition, and the ability of simple scaling models to describe the behavior.

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Date submitted: 29 Nov 2005

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