

Abstract Submitted  
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**Dynamics of Poly(methyl methacrylate) and Polystyrene Thin Films on Hydrophobic and Hydrophilic Surfaces**<sup>1</sup> MESFIN TSIGE, The University of Akron — While an extensive literature dealing with the structure and dynamics of polymers at surfaces and interfaces exist, there has been a paucity of information regarding the length scale of the influence of the surface on polymer mobility and its dependence on polymer-surface interaction. To address this issue, we have investigated using molecular dynamics simulations the dynamics of PMMA and PS films of similar system sizes on two different surfaces as a function of film thickness, polymer molecular weight, and temperature. The dynamics of the polymer chains in the film on two different surfaces will be discussed in the context of a three-layer model.

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