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Motion of clusters on complex surfaces[1] SABRI ALKIS, JEFFREY KRAUSE, HAI-PING CHENG, University of Florida, Gainesville, FL, 32611-8435 — Polymer and organic molecule assemblies have been investigated intensely in the past decade, due to their vast range of applications in nano-molecular electronics and as bio-sensors. In particular, self-assembled monolyers (SAMs) of alkanethiol on the Au(111) surface are used widely in surface studies because they are simple structurally, stable thermodynamically and have well-defined order. In this project, inspired by recent experiments, we use classical molecular dynamics simulations to study motions of Ag_n clusters with various sizes on the alkanthiol SAMs. We report detailed results on dynamics, diffusion, and sintering processes of these nano-clusters.

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