

Abstract Submitted
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Monte Carlo simulations of the selective adsorption of heteropolymers on heterogeneous surfaces YONGMEI WANG, JESSE ZIEBARTH, University of Memphis — Lattice Monte Carlo simulations are used to study selective adsorption of heteropolymers on heterogeneous surfaces. We focus on how statistical correlation between sequence types and surface patterns affects the critical adsorption point (CAP). We show that statistically patchy and statistically alternating surfaces selectively adsorb blocky and alternating chains, respectively, while surfaces with a random distribution of attractive sites do not selectively adsorb any types of chains. We also show that selectivity is maximized near the CAP. Selectivity of checker-board surfaces have also been examined and we show that higher order parameters describing sequences and surface patterns are needed to fully characterize the selectivity of these surfaces toward different sequences.

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