

Abstract Submitted
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Connection between the energy landscape and glass transition in a two-dimensional Lennard-Jones mixture FRANK SOMER, Columbia College — Results of recent molecular dynamics simulations of a two-dimensional glass forming system are presented. The system's inherent structures are investigated over a wide range of temperature and cooling rate and compared to previous results for three-dimensional liquids and glasses. A method for analyzing the regions of the energy landscape sampled under various conditions is introduced and used to characterize the glass transition. Connections with inherent-structures theory, mode-coupling theory, and spatially inhomogeneous dynamics are discussed.

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