

Abstract Submitted
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Structure and dynamics of model colloidal clusters with short-range attractions KRYSTLE QUINN, ROBERT HOY, University of South Florida — We examine the structure and dynamics of small isolated N -particle clusters interacting via short-ranged Morse potentials. "Ideally prepared ensembles" obtained via exact enumeration studies of sticky hard sphere packings serve as reference states allowing us to identify key statistical-geometrical properties as well as to quantitatively characterize how nonequilibrium ensembles prepared by thermal quenches at different rates \dot{T} differ from their equilibrium counterparts. Our results provide a theoretical framework for extending recent experimental studies of small colloidal clusters to examine nonequilibrium phenomena.

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