

Abstract Submitted
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Glassy Structural Trapping in Soft Multi-Face Colloids RODNEY PRIESTLEY, Princeton University — Nanoparticles with soft, heterogeneously patterned surfaces often exhibit unique, multi-functional behaviors in response to environmental stimuli. The soft, polymeric nature of the particle surface, moreover, allows for the tailoring of both surface architecture and chemical composition towards particular applications. We have recently demonstrated that Precipitation-Induced Self Assembly (PISA) can be used to form soft Janus colloids as well as multi-faceted colloids in a scalable approach in which many colloidal characteristics can be controlled independently. Here, we present evidence not only of kinetic trapping in the formation of rapidly precipitated, multi-surface polymer particles; but also delineate the role of polymer vitrification in the determination of multi-faceted particle structures.

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