Abstract Submitted
for the MAR15 Meeting of
The American Physical Society

Engineering Crystals Through Shape GREG VAN ANDERS, University of Michigan, DAPHNE KLOTSA, University of Cambridge, SHARON GLOTZER, University of Michigan — Advances in synthesis techniques have produced colloids and nanoparticles in a diverse array of shapes that can be assembled into bulk crystals. That bulk structure is strongly affected by particle shape in idealized systems is widely established in the literature. However, this literature leaves open three key questions: (i) We know that shape affects structure, but how? (ii) Does shape matter in experimental systems where other interactions are present? (iii) How do we tailor particle shape for a target structure? In this talk we discuss recent work aimed at answering these questions.

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Date submitted: 14 Nov 2014 Electronic form version 1.4