

Abstract Submitted
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Packing Structures of Soft Particles by Compression SANGWOO

LEE, LIWEN CHEN, Rensselaer Polytech Inst — Recent discovery of Frank-Kasper phases in self-assembling materials stimulates exploration of new crystal structure to understand the origin of the complex packing structures nature selects. We investigated packing structures by block copolymer micelles in an aqueous/organic solvent mixture. The micellar solution showed two phase states of globular polymer phase and liquid phase containing homogeneously dispersed polymeric micelles. The micelles developed a close-packed order which transforms into a Frank-Kasper C14 phase as the concentration of block copolymer surfactant increases. This transition aligns with the sphericity criteria.

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