Self-Assembly of Nanoparticle Ring Patterns*

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We focus on the formation of self-assembled micrometer-sized rings of $CoPt_3$ nanoparticles due to phase separation of a binary solution, giving rise to a bilayer structure and subsequent decomposition of the top layer into droplets. Evaporation of the remaining solvent from the droplet leads to a shrinking of its contact line. The nanoparticles located at the contact line follow its motion and self-assemble along the line accordingly.

Key words: Nanoparticles; Self-Assembly; Phase Separation.