

Abstract Submitted
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Programmable Crafting of Hierarchically Structured Block Copolymer/Nanoparticles (and Nanorods) via Flow Enabled Self-Assembly¹ ZHIQUN LIN, BO LI, WEI HAN, Georgia Institute of Technology — Hierarchical assembly of diblock copolymer/nanocrystals (e.g., Au and CdSe nanoparticles and nanorods) was successfully crafted into parallel stripes by flow enabled self-assembly (FESA). They were precisely and programmably patterned at desired position on the substrate. Remarkably, a minimum spacing between two adjacent stripes was observed and a model was proposed to understand the relationship between the width of stripes and the minimum spacing. FESA of diblock copolymer/nanocrystals is a lithography-free method and facile to implement, offering opportunities for creating functional hierarchically structured materials and devices.

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