

Supplementary Information

Fabrication of Gold Dot, Ring, and Corpuscle Arrays from Block Copolymer Templates via a Simple Modification of Surface Energy

Heesook Cho, Sinho Choi, Jin Young Kim, and Soojin Park*

Interdisciplinary School of Green Energy, Ulsan National Institute of Science and
Technology (UNIST), Ulsan 689-798, Korea

*Corresponding Author

Soojin Park

Email) spark@unist.ac.kr

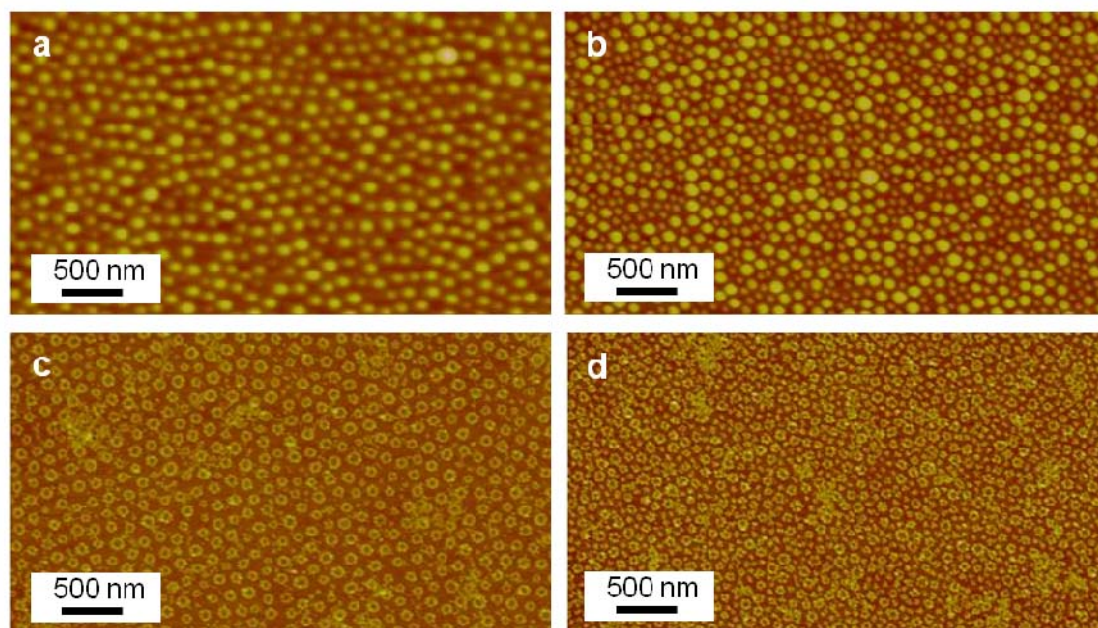


Fig. S1 Height mode AFM images of spherical micellar thin films spin-coated from 0.4 wt% polymer solutions in a) *o*-xylene/toluene (70/30, v/v), b) *o*-xylene/toluene (50/50, v/v) solvent mixture. When Au precursors were loaded to the samples seen in Figure S2a) and S2b), and followed by oxygen plasma treatment, Au ring arrays having ring diameters of c) 60 nm and d) 40 nm were obtained.

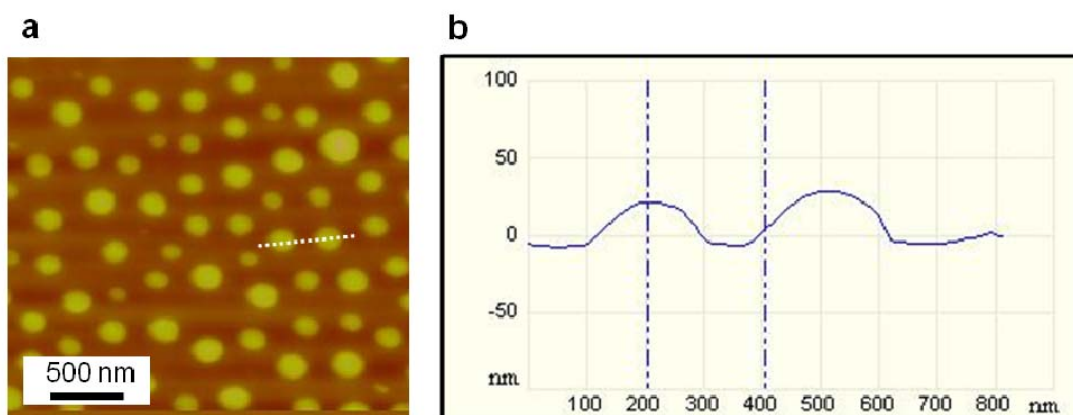


Fig. S2 a) AFM images of PS-b-P2VP micelles spin-coated onto normal silicon substrates. b) The corresponding cross-sectional line scans indicate that the height of micelles is approximately 25 nm.

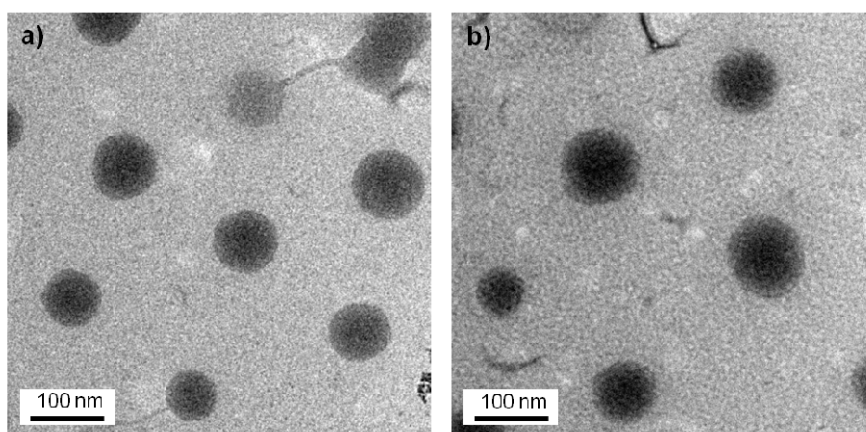


Fig. S3 TEM images of PS-b-P2VP micelles stained with a) iodine for 5 hr and b) RuO₄ for 3 min. The PS-b-P2VP films spin-coated onto silicon surfaces having 500 nm thick silicon oxide layers were floated from a 1% HF solution, and transferred onto the Formvar-coated copper grids.