

## Supplementary Data

# Precise Placements of Metal Nanoparticles from Reversible Block Copolymer Nanostructures

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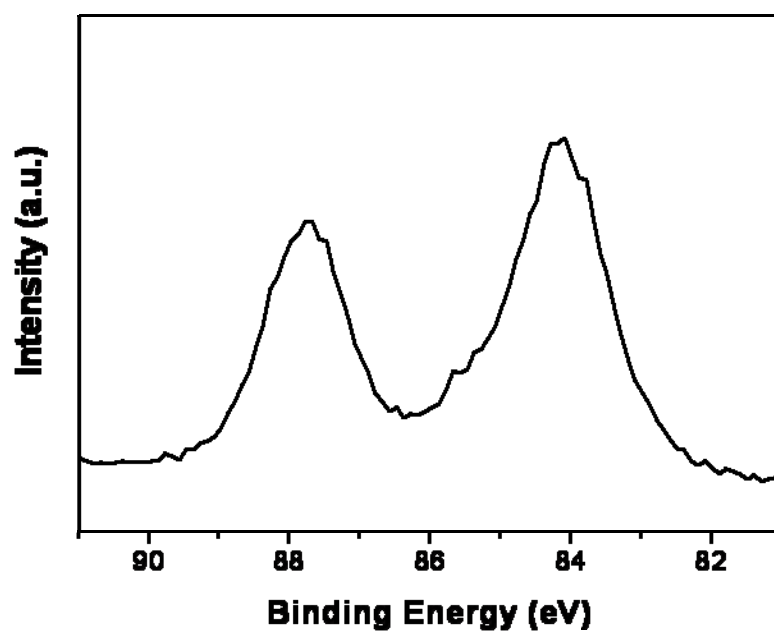
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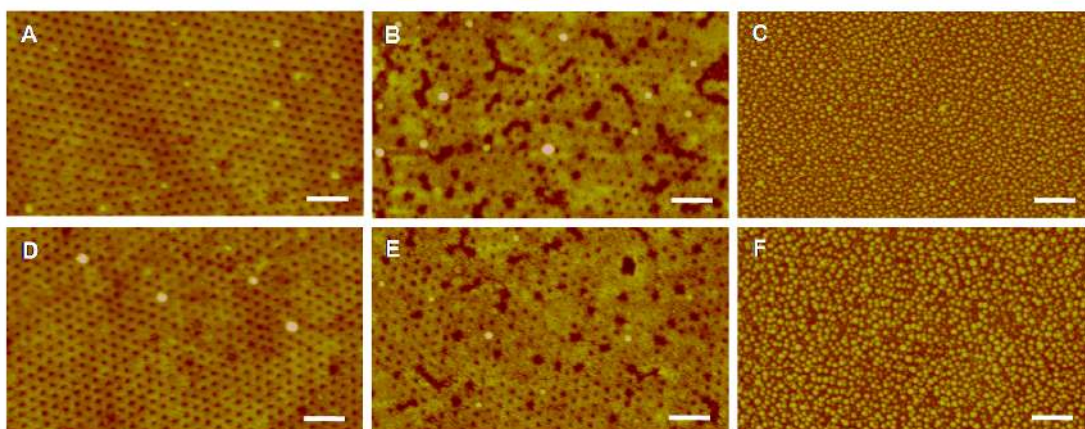
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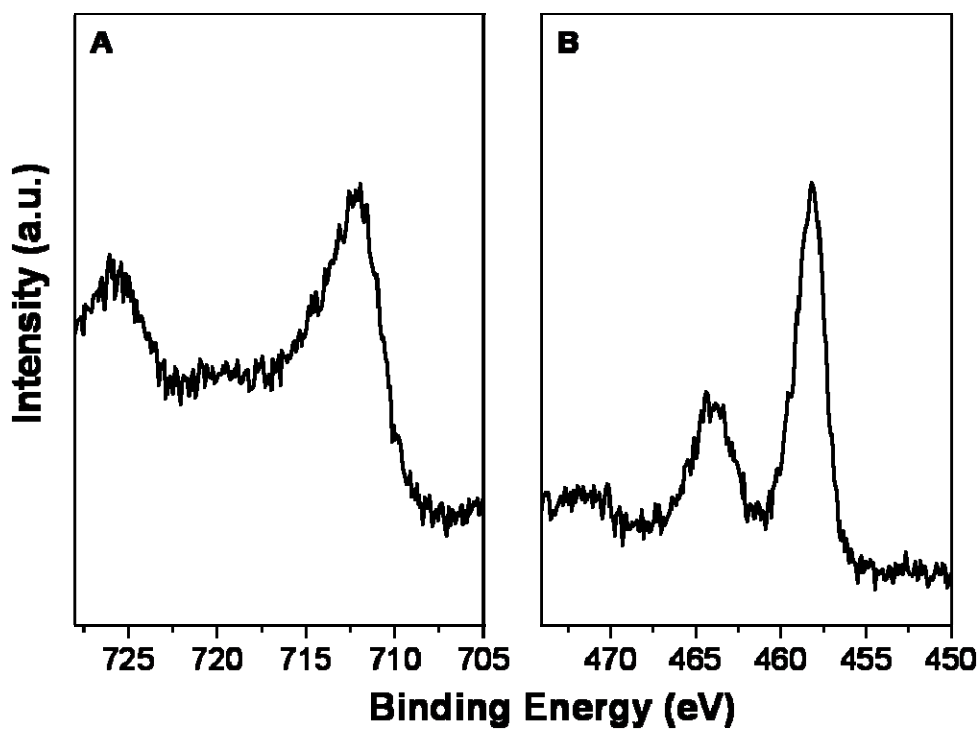
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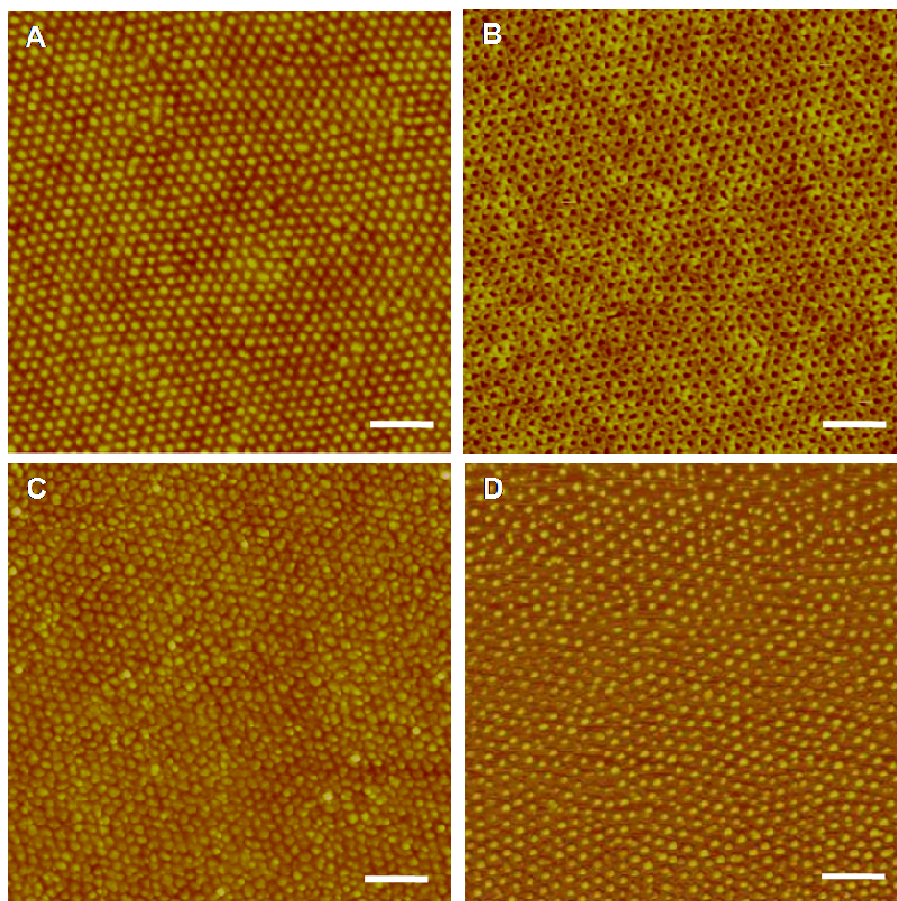
**Figure S1.** XPS results of gold nanoparticles prepared from reversible PS-*b*-P2VP templates. The photoelectron spectra of Au(4f) of gold nanoparticles corresponding to metallic Au (84.0 and 87.6 eV) were seen.



**Figure S2.** SFM images of gold nanoparticles prepared from PS-*b*-P2VP templates containing over-loaded gold precursors. (A) Surface reconstructed film, (B) Spin-coating of 0.15 wt% gold precursor solution onto the reconstructed film seen in (A), (C) Arrays of gold nanoparticles obtained by toluene vapor exposure and oxygen plasma etching. (D) Reconstructed film, (E) Spin-coating of 0.2 wt% gold precursor, and (F) Gold nanoparticles obtained by thermal annealing and oxygen plasma. Scale bars are 200 nm.



**Figure S3.** XPS results of  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> (A) and TiO<sub>2</sub> (B) nanoparticles prepared from reversible PS-*b*-P2VP templates. The Fe(2p) and Ti(2p) photoelectron peaks are shown at 711.6 eV and 458 eV, respectively.



**Figure S4.** SFM images of gold nanoparticles prepared from PS-*b*-P2VP templates having smaller molecular weights. (A) Solvent annealed film, (B) Surface reconstructed film, (C) Spin-coating of 0.1 wt% gold precursor solution onto the reconstructed film seen in (B), and (D) Gold nanoparticles obtained by thermal annealing and oxygen plasma. Scale bars are 200 nm.