

Electronic Supplementary Information

Selective confinement of oleylamine capped Au nanoparticles in self-assembled PS-*b*-PEO diblock copolymer templates

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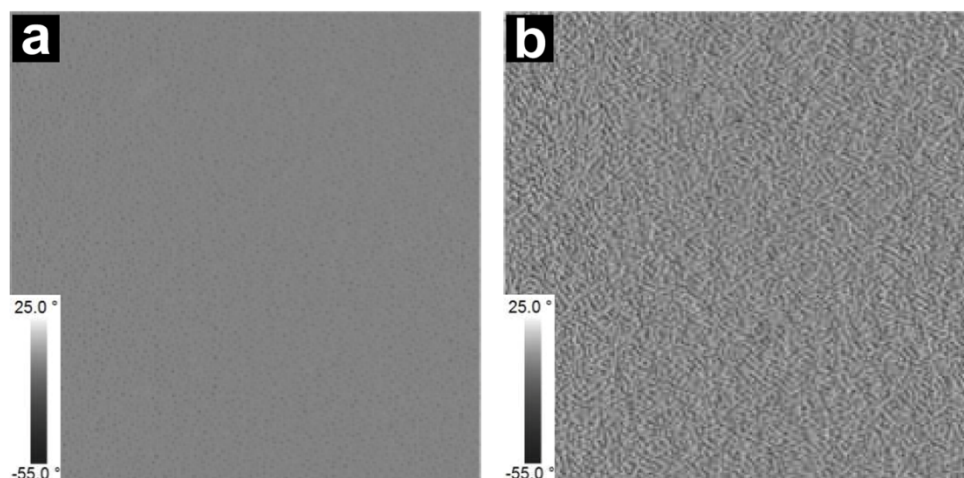


Fig. S1 PS-*b*-PEO BCPs: TM-AFM phase images of (a) HSEO and (b) LSEO (scan size 5 μ m $\times$ 5 μ m).

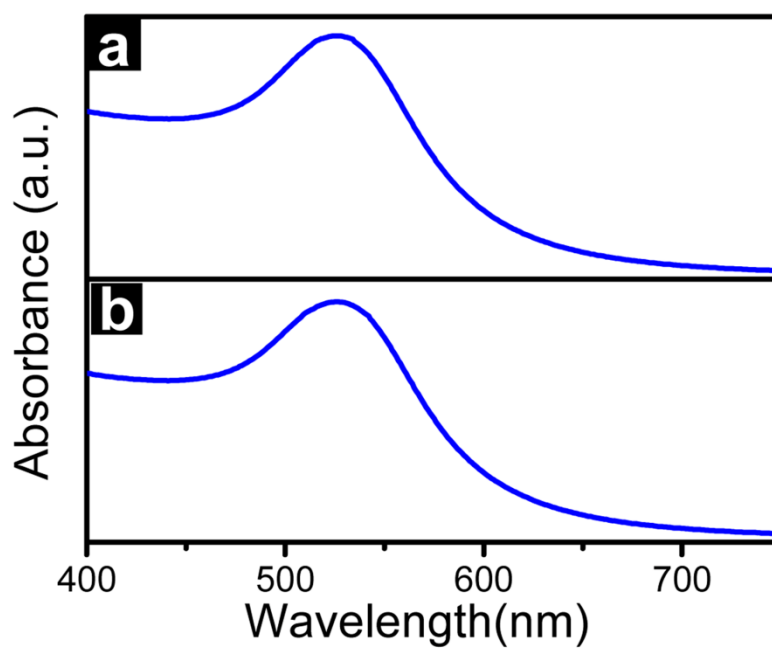


Fig. S2 Absorption spectra of nanocomposite toluene solutions based on 5wt% Au NPs and (a) HSEO BCP and (b) LSEO BCP.

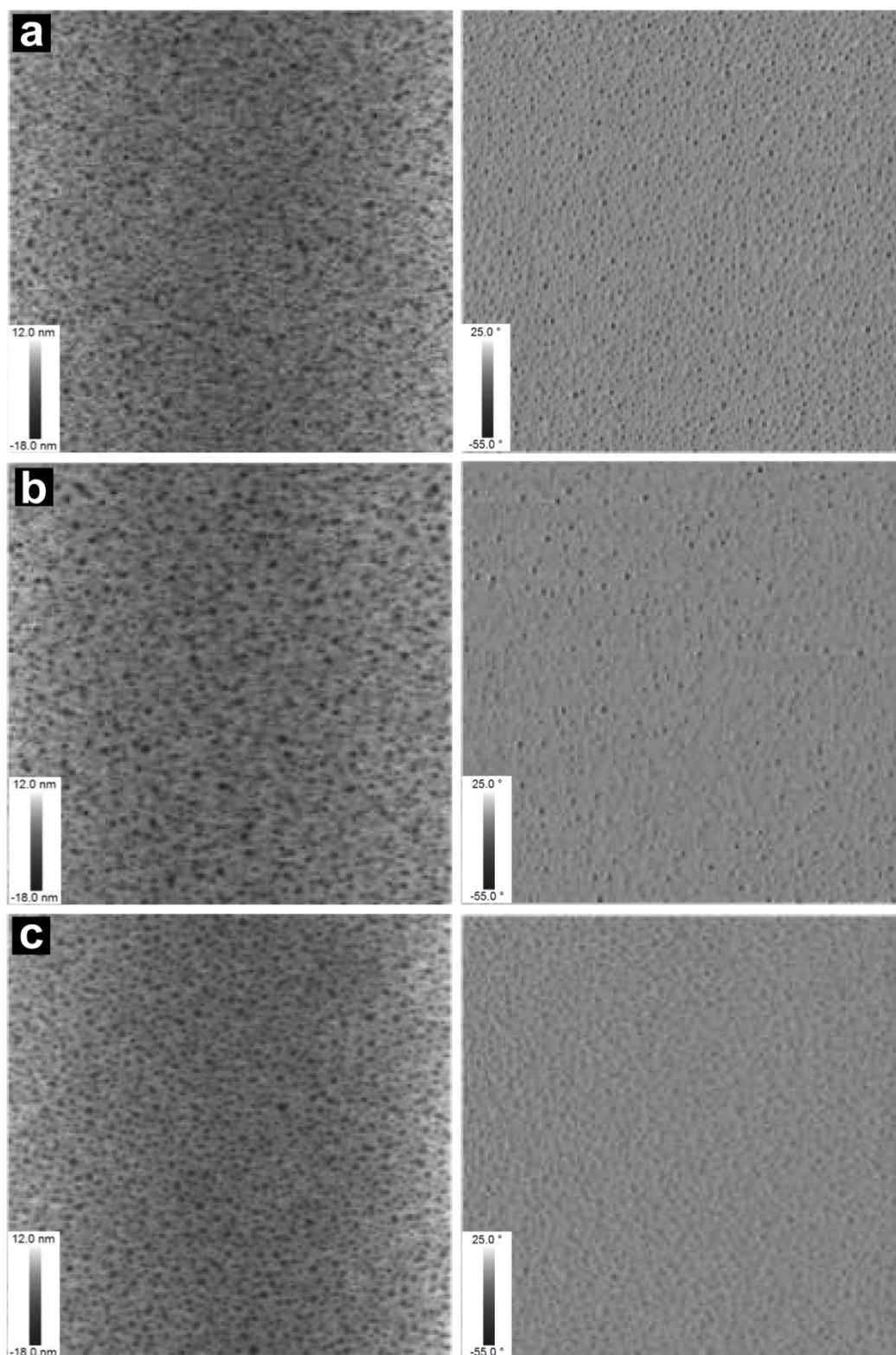


Fig. S3 TM-AFM topography (left) and phase (right) images of nanocomposite based on HSEO BCP and increasing content of Au NPs (a) 5wt% (b) 9wt% (c) 13wt%. Scan size $5\mu\text{m}\times 5\mu\text{m}$.

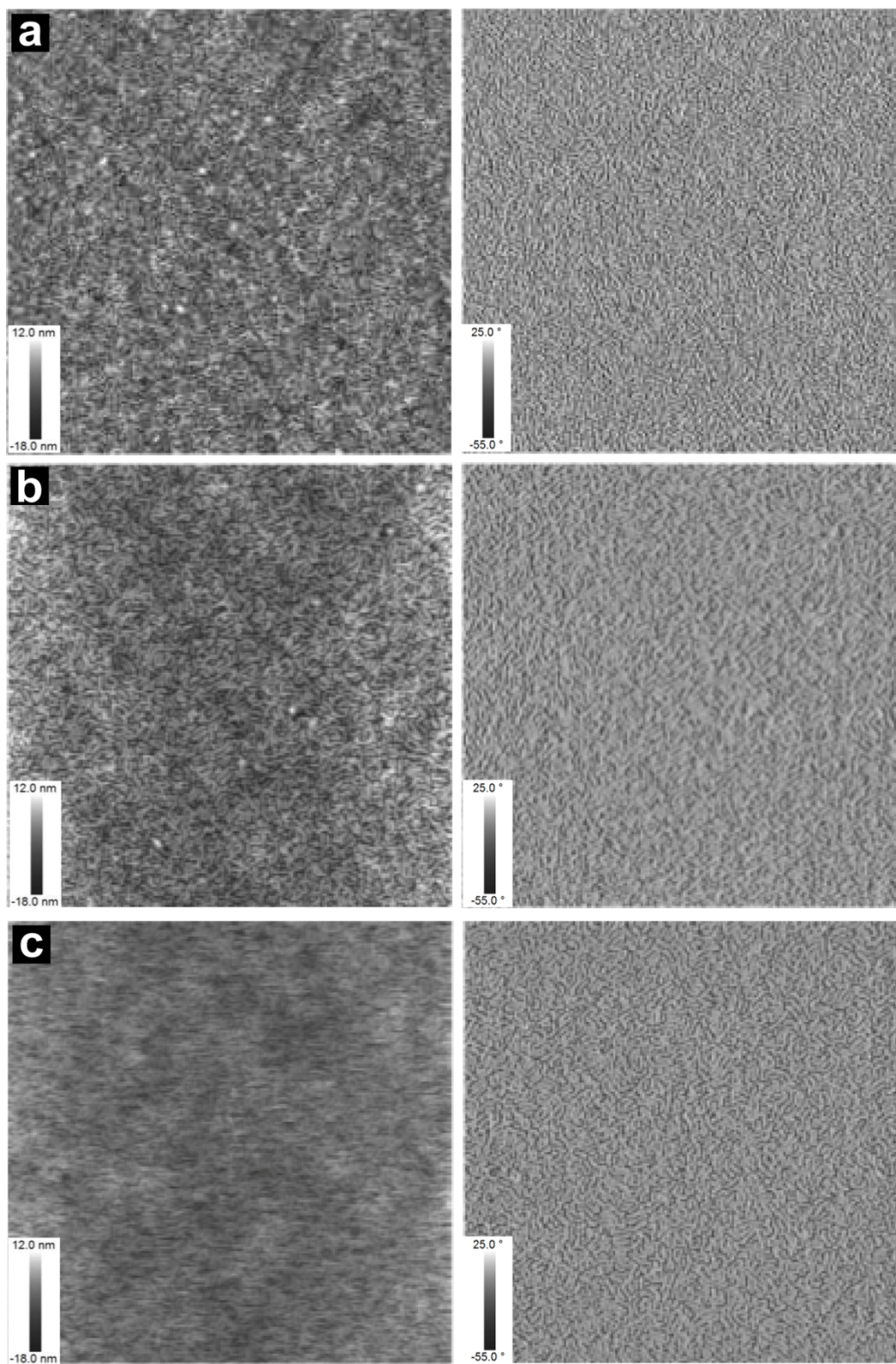


Fig. S4 TM-AFM topography (left) and phase (right) images of nanocomposite based on HSEO BCP and increasing content of Au NPs (a) 5wt% (b) 9wt% (c) 13wt%. Scan size 5 μm × 5 μm.

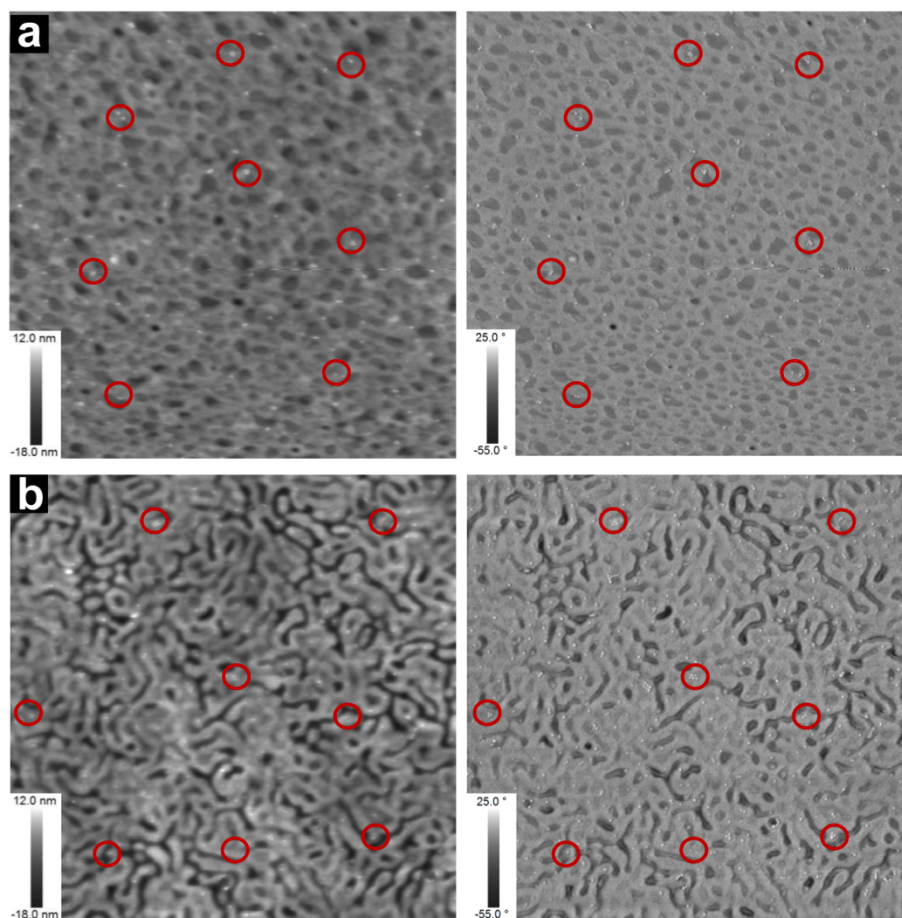


Fig. S5 TM-AFM topography (left) and phase (right) images of nanocomposite based on 17wt% Au NPs and (a) HSEO BCP and (b) LSEO BCP. Scan size 2 μm × 2 μm.

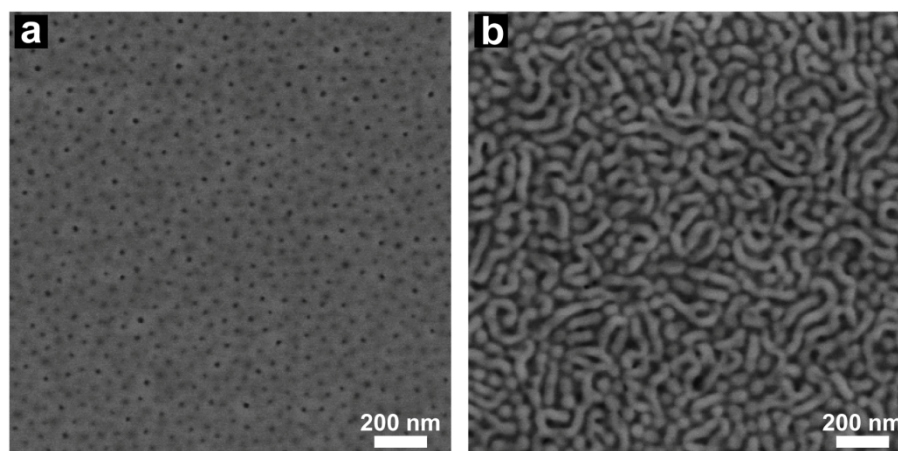


Fig. S6 SEM micrographs of (A) HSEO BCP and (B) LSEO BCP.