

Supporting Information

Synthesis of Janus Au@Periodic Mesoporous Organosilica (PMO) Nanostructures with Precisely Controllable Morphology: A Seed-Shape Defined Growth Mechanism

Huicheng Hu,^{†,‡} JingJing Liu,^{†,‡} Jiaqi Yu,^{†,‡} Xuchun Wang,[†] Haowen Zheng,[†] Yong Xu,^{†,*} Min Chen,[†] Jie Han,[§] Zhuang Liu,^{†,*} Qiao Zhang,^{†,*}

[†] Institute of Functional Nano & Soft Materials (FUNSOM), Jiangsu Key Laboratory for Carbon-Based Functional Materials & Devices, Soochow University, Suzhou, Jiangsu 215123, P. R. China

[§] School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, Jiangsu 225002, PR China

Email: xuy@suda.edu.cn (Y.X.); zliu@suda.edu.cn (Z.L.); qiaozhang@suda.edu.cn (Q.Z.)

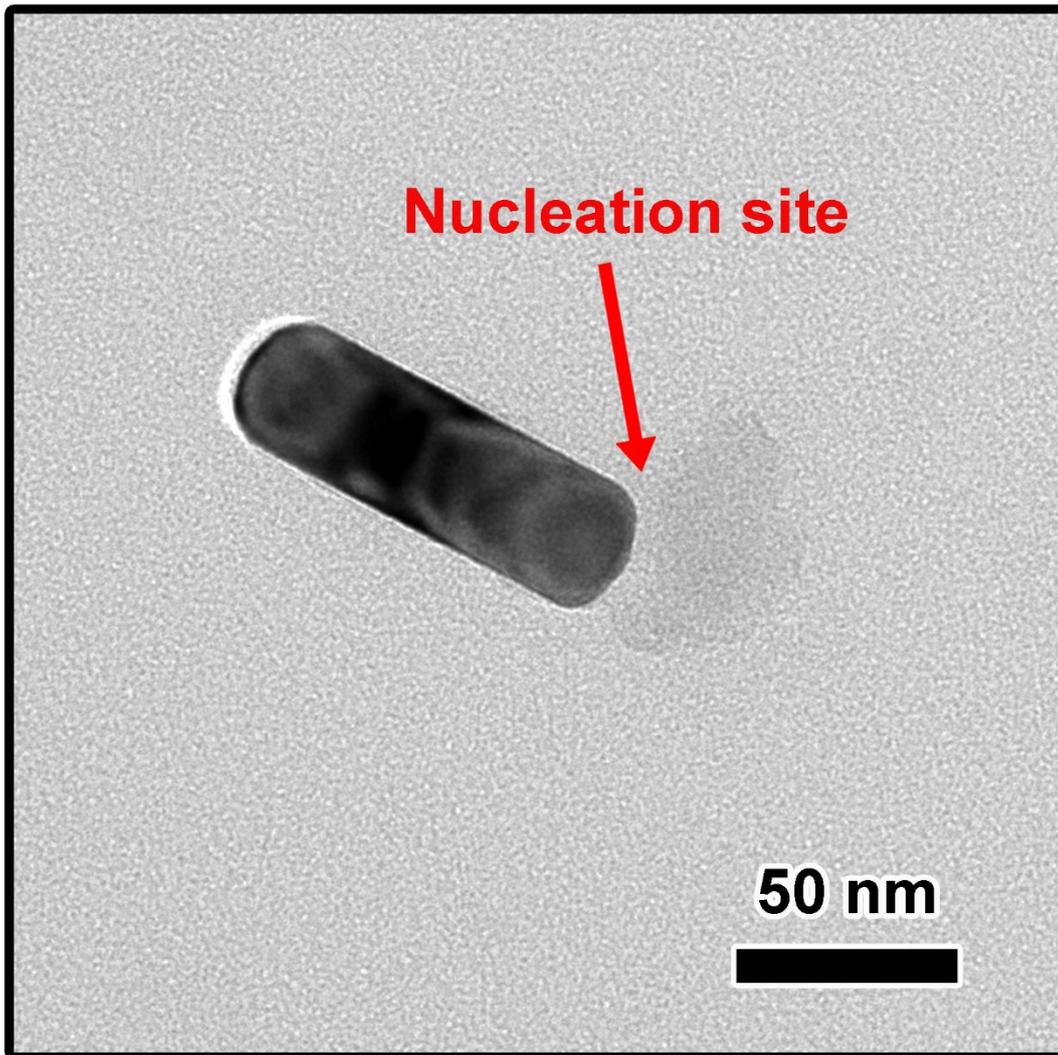


Figure S1 TEM image of the nucleation process.

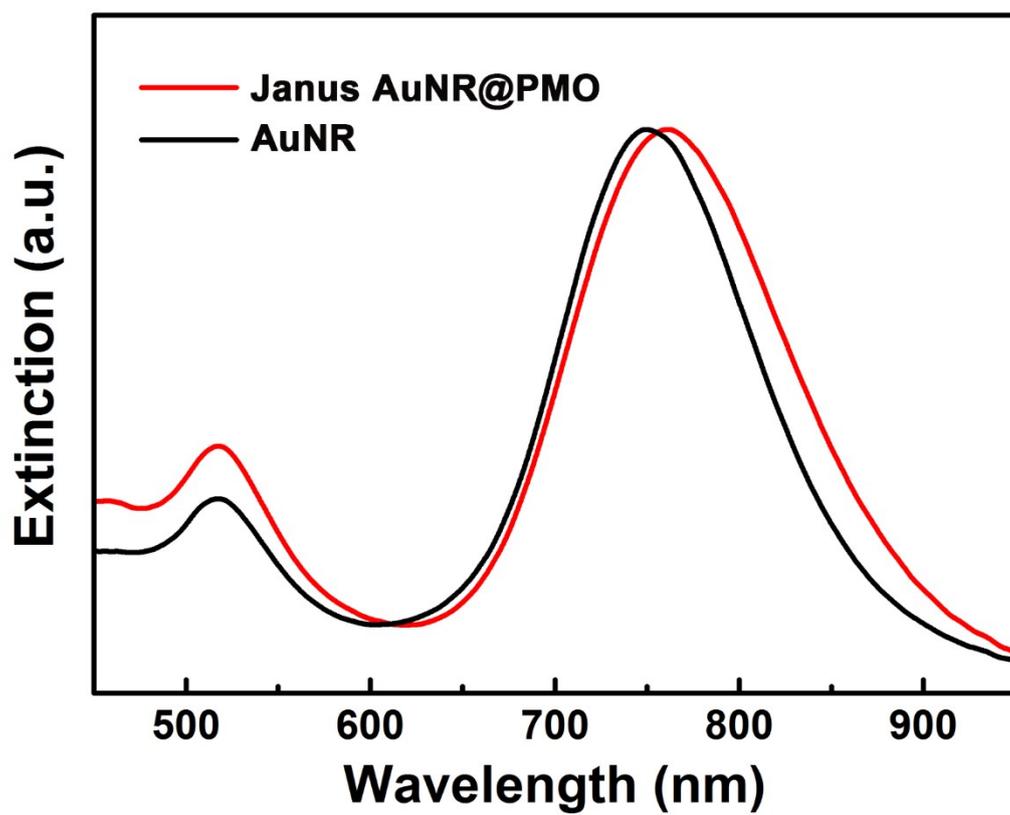


Figure S2 Extinction spectra of AuNRs (black line) and Janus AuNR@PMO nanoparticles (red line).

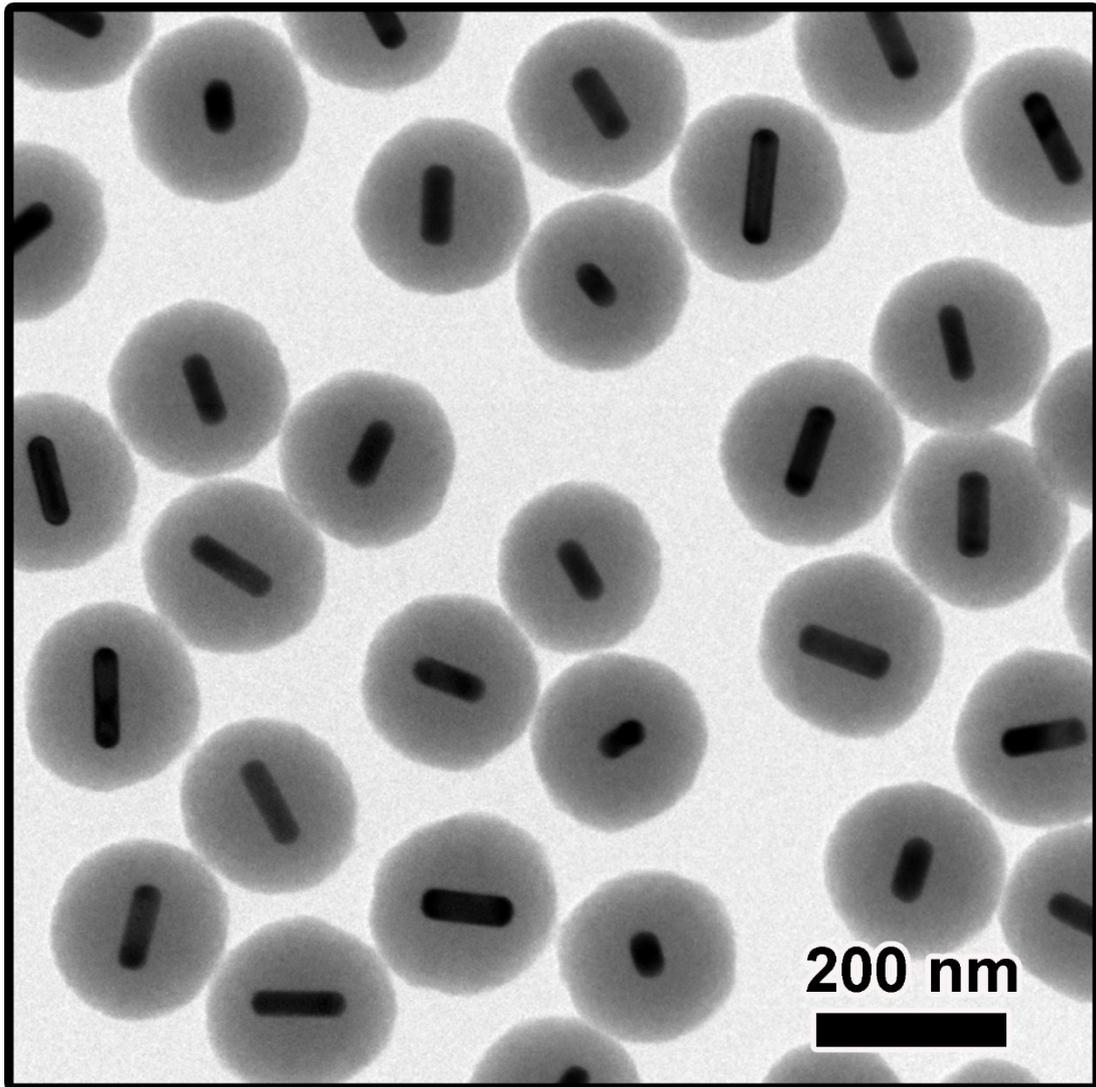


Figure S3 TEM image of symmetric core-shell structured AuNRs@PMO nanoparticles obtained when the volume ratio between water and ethanol is 3:1.

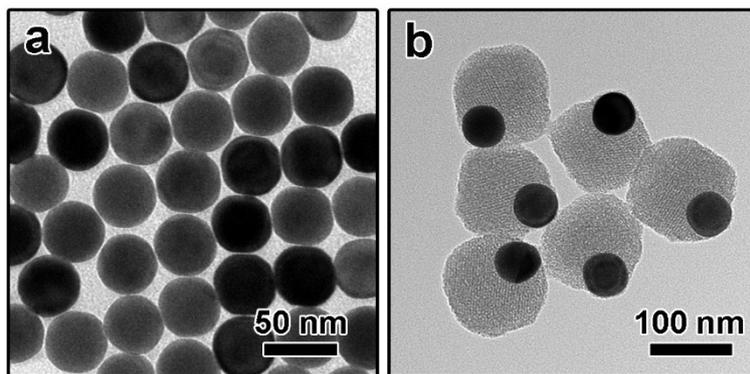


Figure S4 TEM images of (a) monodispersed Au nanospheres and (b) spherical Au nanospheres@PMO nanoparticles.

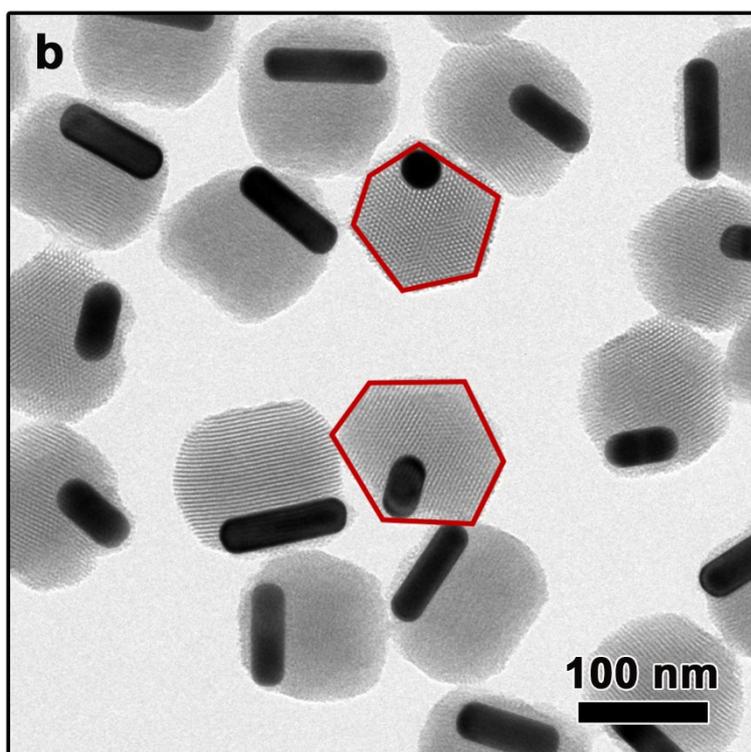
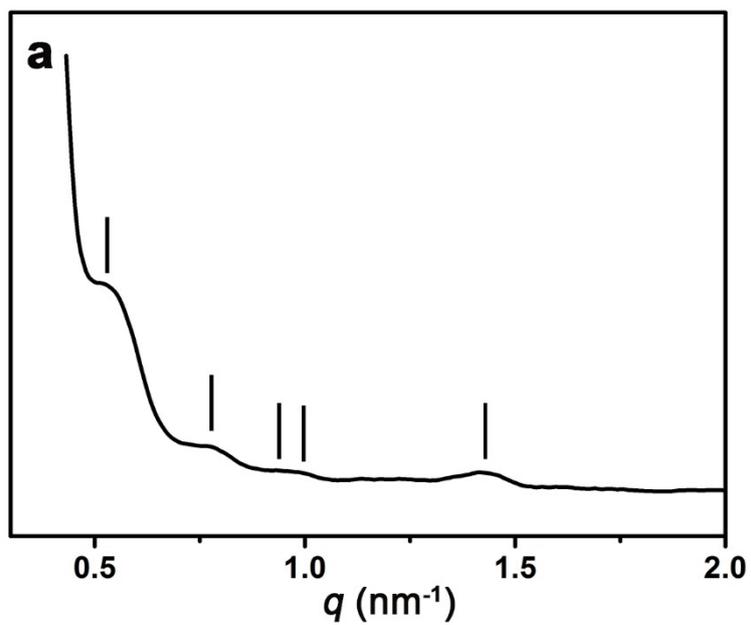


Figure S5. (a) SAXS pattern of Janus AuNR@PMO nanostructures. (b) TEM image of Janus AuNR@PMO nanostructures.

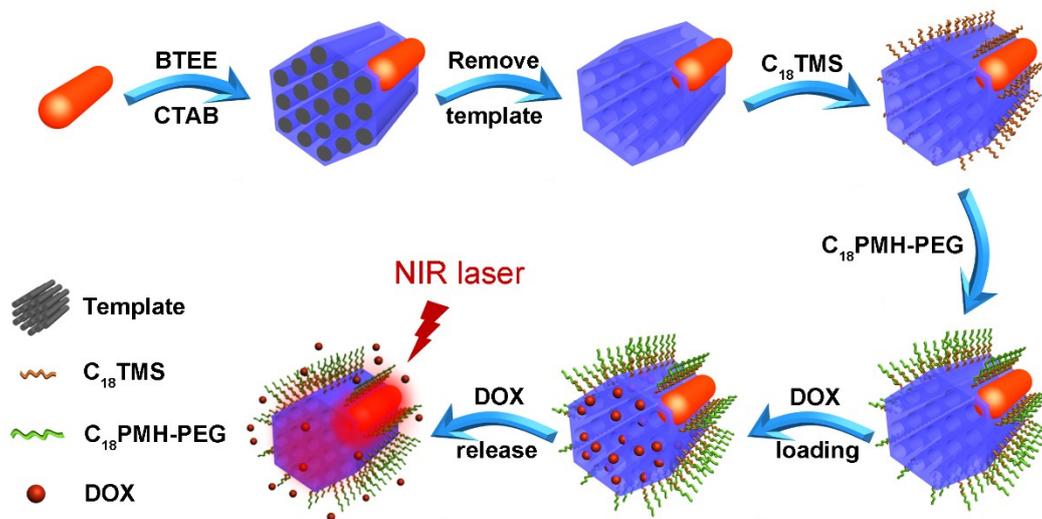


Figure S6 Schematic illustration of the preparation of AuNR@PMO-PEG and its application in chemo-photothermal combination therapy.

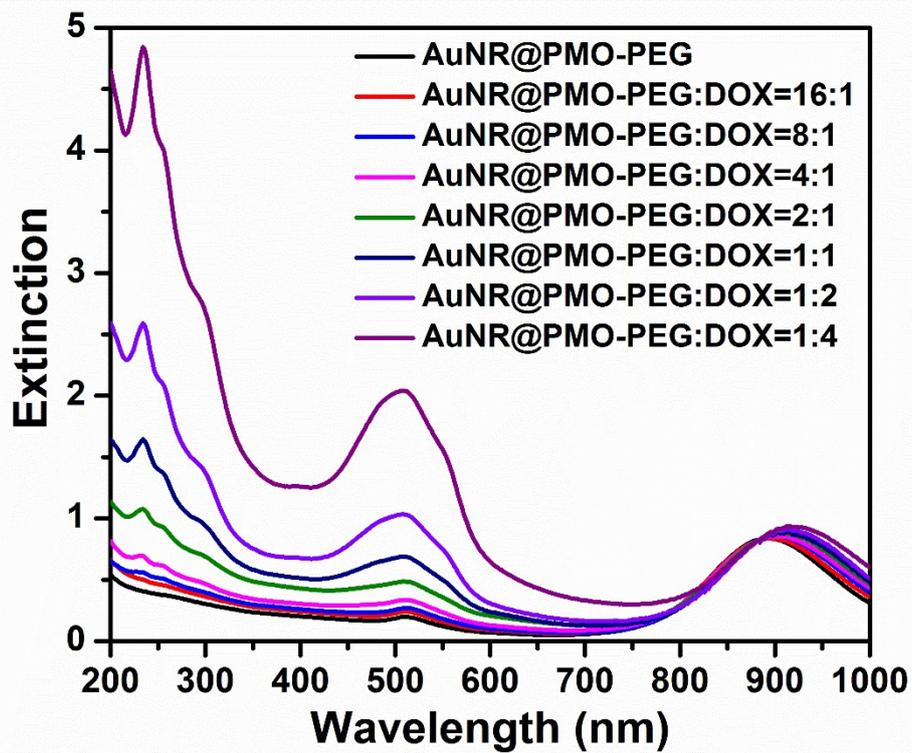


Figure S7 UV-Vis-NIR spectra of AuNR@PMO-PEG loaded with different amounts of DOX.

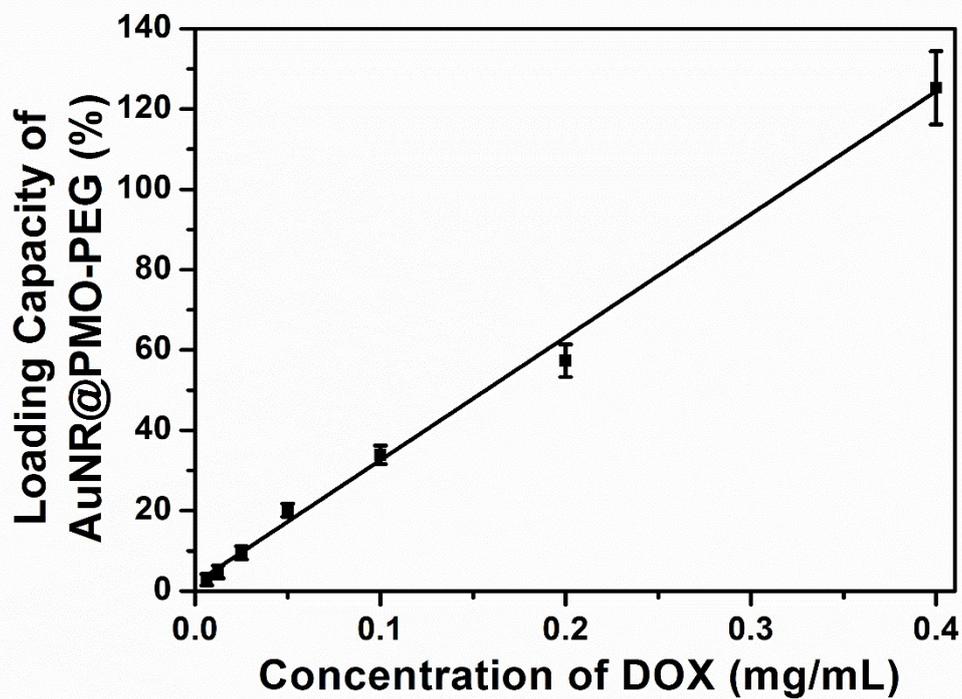


Figure S8 Quantification of DOX loadings at different DOX concentrations. The concentration of DOX varied from 0 to 0.4 mg/mL.