

Control of Silver Coating on a Raman Labeling Chemical Incorporated Gold Nanoparticles Assembled Silica Nanoparticle

Supplementary Materials:

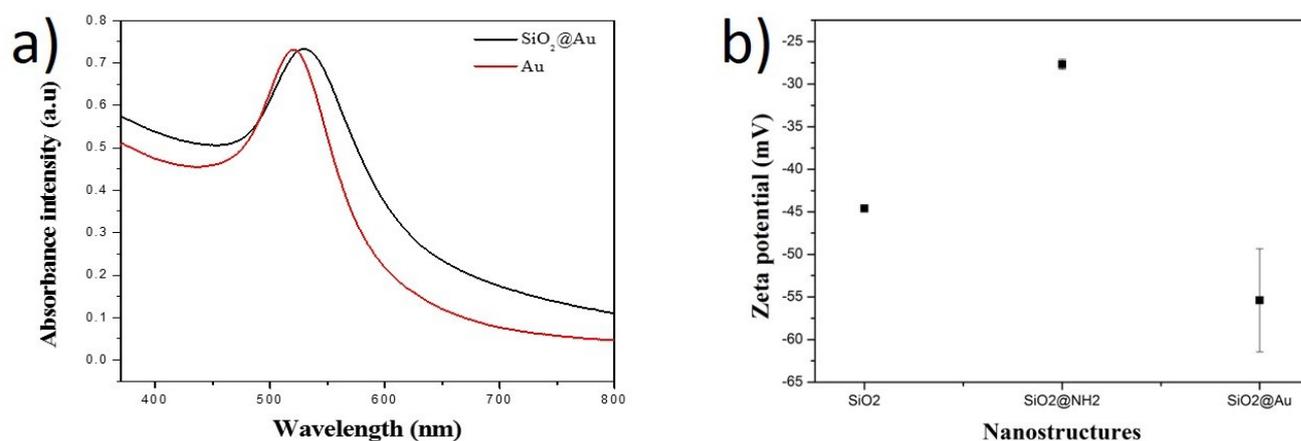


Figure S1. (a) UV-Vis of Au and SiO₂@Au and (b) zeta potential of silica nanoparticles (SiO₂), 3-aminopropyltriethoxysilane (APTS) coated silica nanoparticles (SiO₂@NH₂) and gold embedded silica nanoparticles (SiO₂@Au).

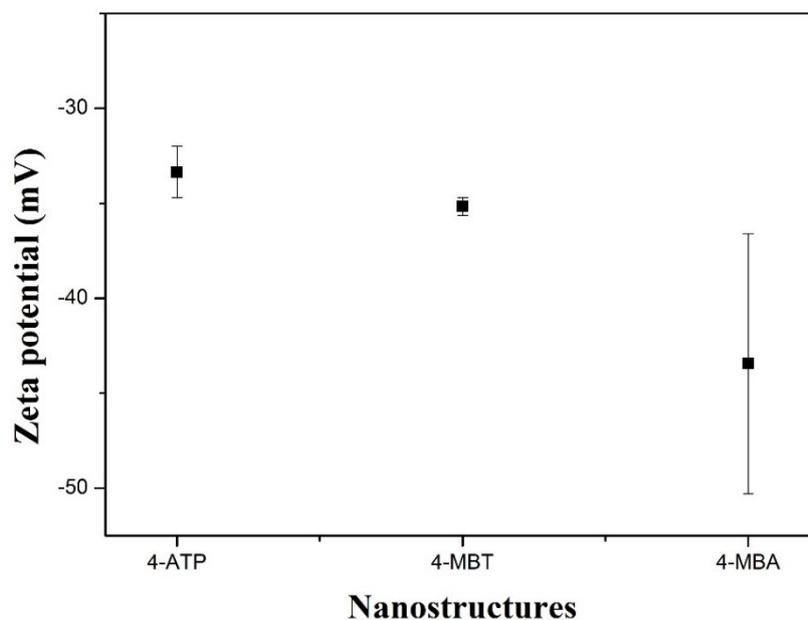


Figure S2. Zeta potential of SiO₂@Au, SiO₂@Au@4-ATP, SiO₂@Au@4-MBT and SiO₂@Au@4-MBA.

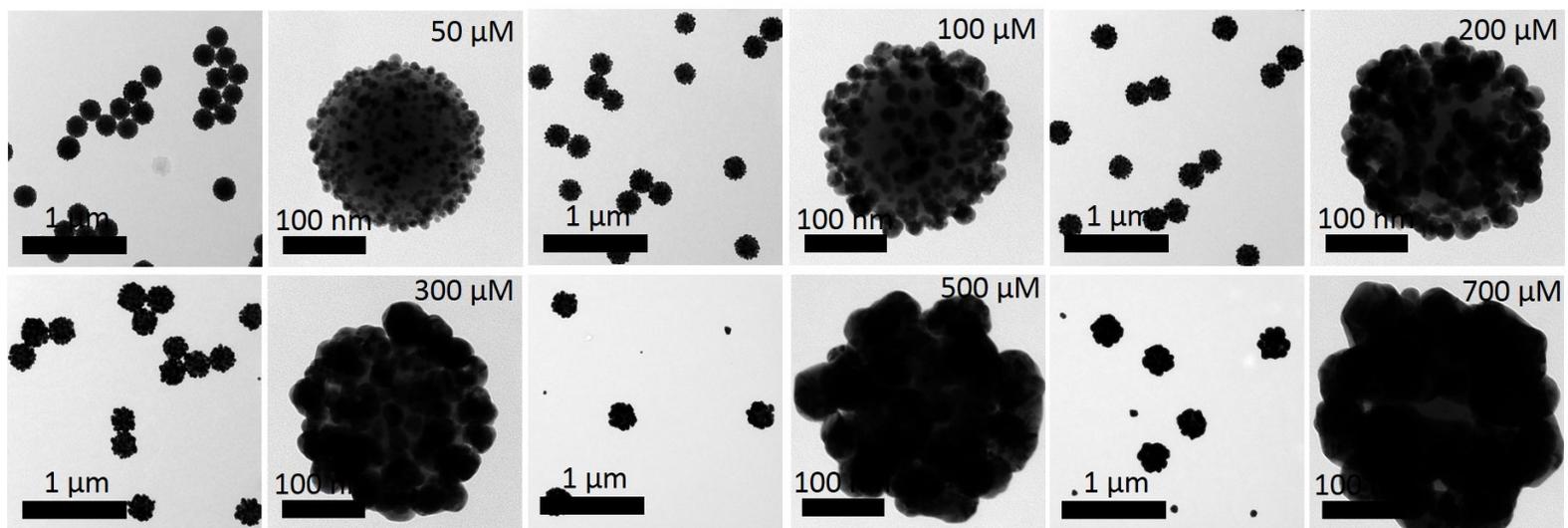


Figure S3. Transmission electron microscopy (TEM) images of $\text{SiO}_2\text{@Au-4-MBA@Ag}$ nanoparticles coated with different concentrations of AgNO_3 in water. Concentration of 4-MBA was 1 mM.

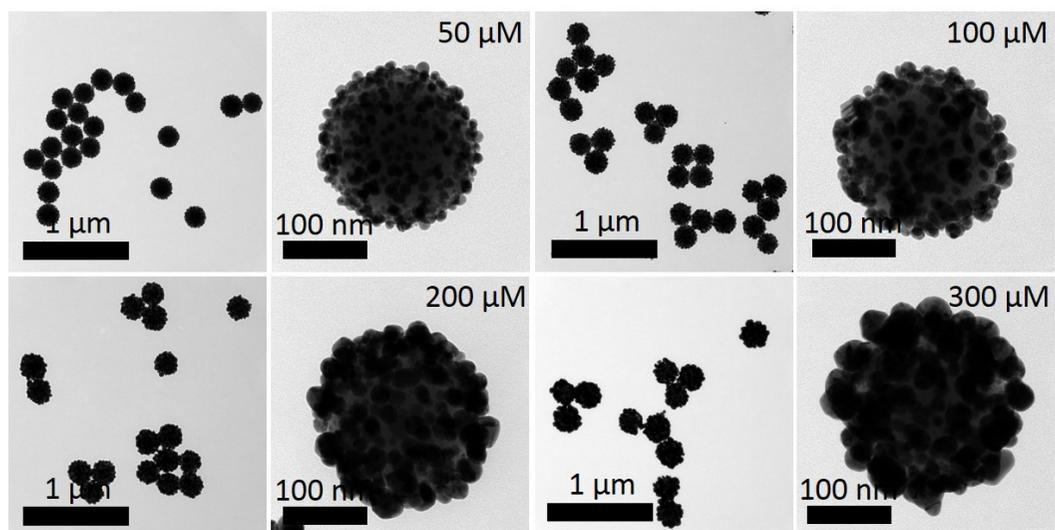


Figure S4. TEM images of $\text{SiO}_2\text{@Au@4-ATP@Ag}$ nanoparticles coated with different concentrations of AgNO_3 . Concentration of 4-ATP was 1 mM.

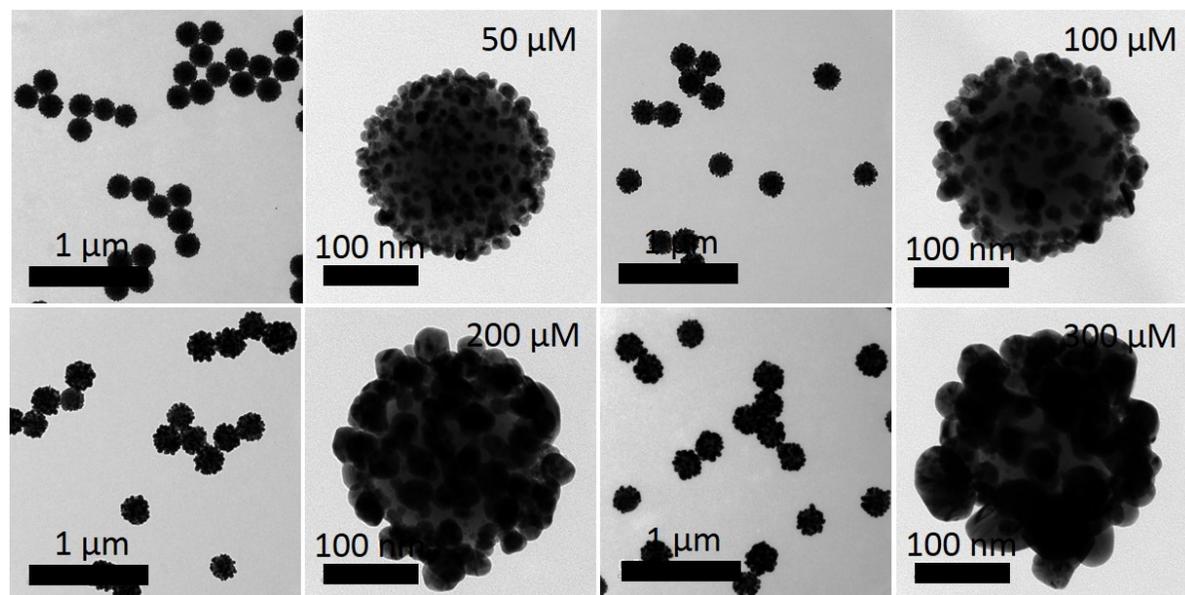


Figure S5. TEM images of SiO₂@Au@4-MBT@Ag nanoparticles coated with different concentrations of AgNO₃. Concentration of 4-MBT was 1 mM.

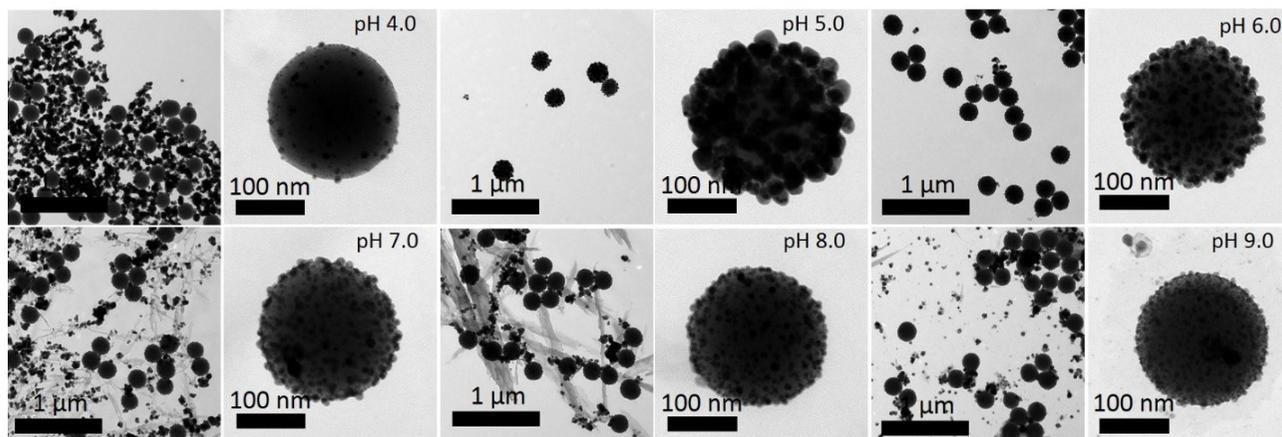


Figure S6. TEM images of SiO₂@Au@4-MBT@Ag nanoparticles coated at different pH. Concentration of 4-MBT was 1 mM.

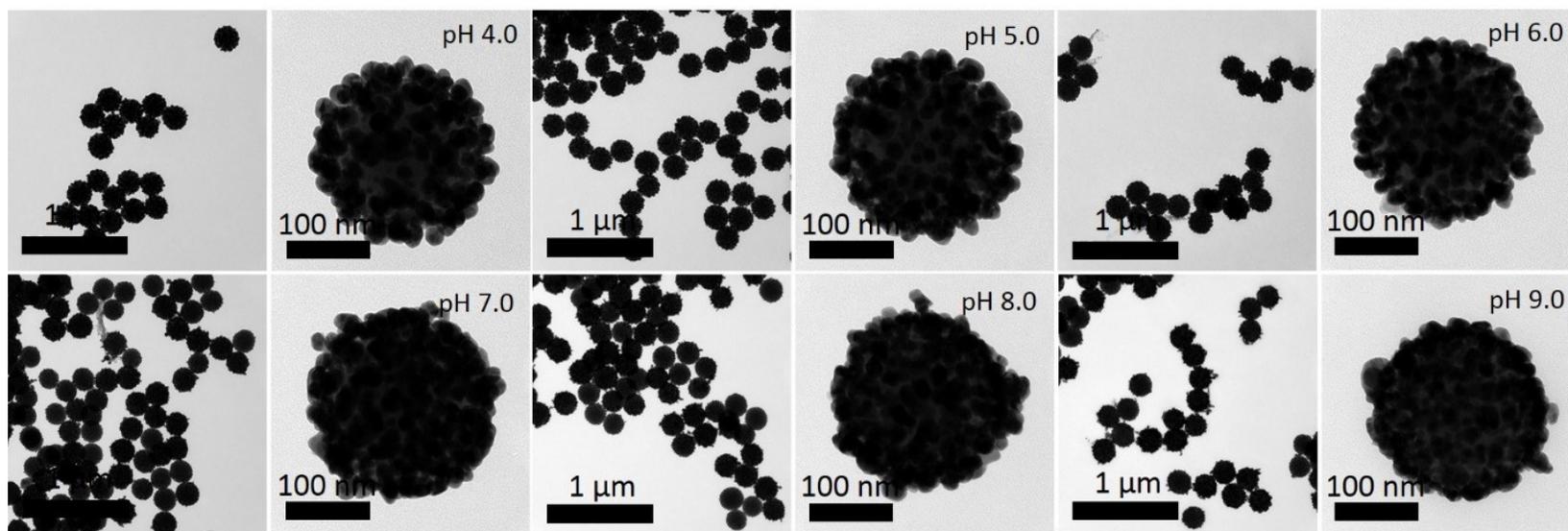


Figure S7. TEM images of SiO₂@Au@4-ATP@Ag nanoparticles coated at different pH. Concentration of 4-ATP was 1 mM.

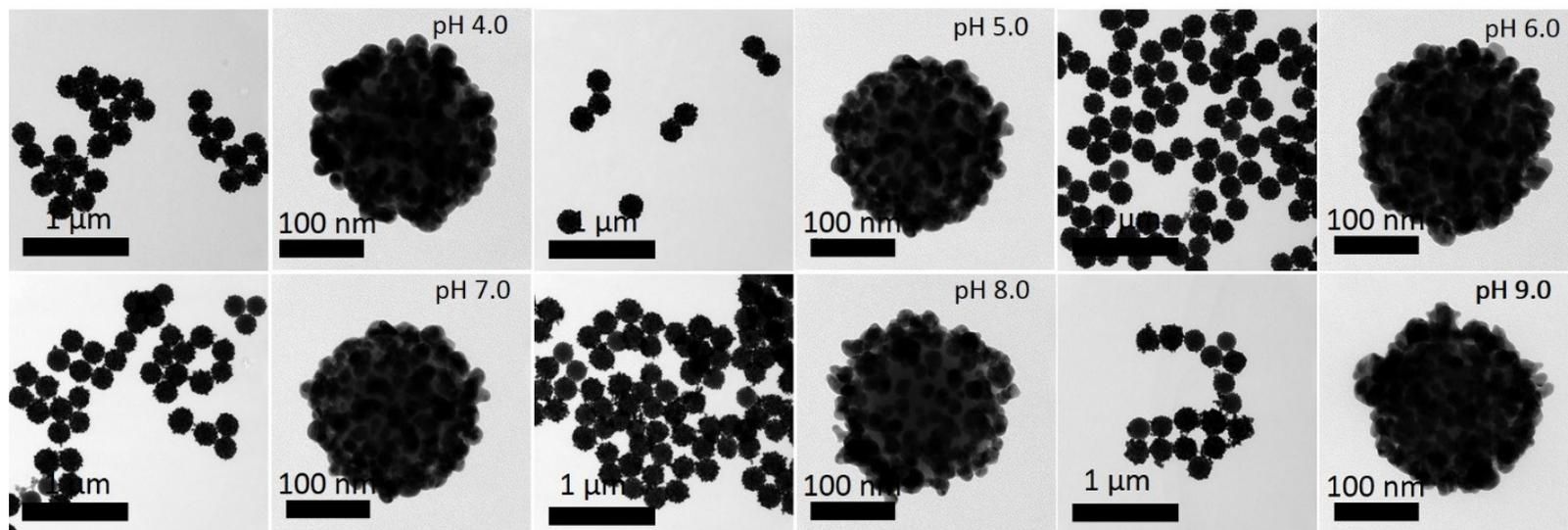


Figure S8. TEM images of SiO₂@Au@4-MBA@Ag nanoparticles coated at different pH. Concentration of 4-MBA was 1 mM.