

Article

Enhanced Surface Plasmon by Clusters in TiO₂-Ag Composite

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Supplementary information

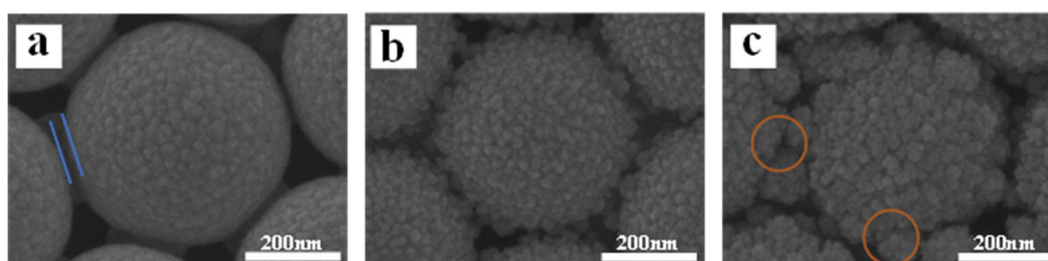


Figure S1. (a–c) SEM images for the samples with TiO₂ sputtering power 20 W, 40 W and 60 W respectively and Ag sputtering power of remains unchanged.

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SEM images confirms the low concentration of TiO₂ addition has little effect on Ag nanocaps into some and Ag nanoparticles are still compact under SEM observations. More TiO₂ addition leads to the coarse surface and finally results in the cluster decorated TiO₂-Ag nanocaps.

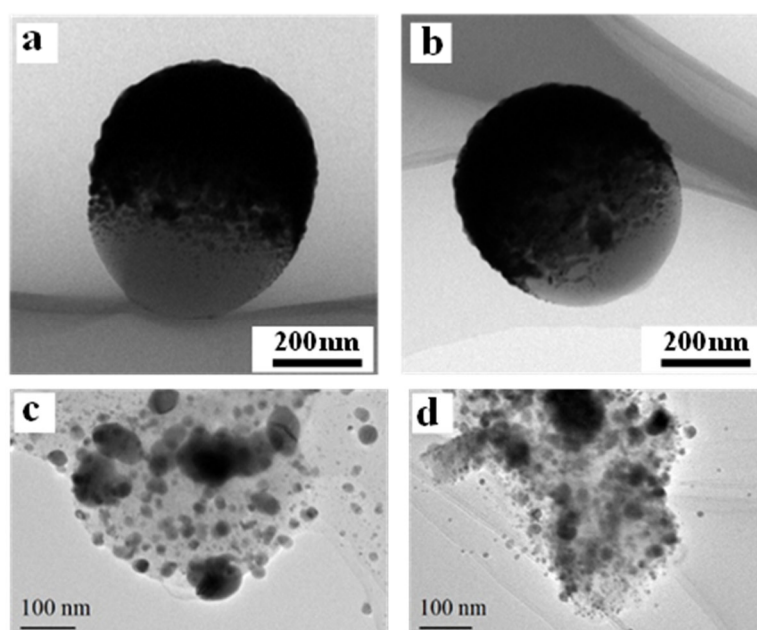


Figure S2. (a) TEM image for Ag nanocaps; (b–d) TEM images for the samples with TiO₂ sputtering power 20W, 40W and 60W respectively.

TEM observations show the nanoparticles of Ag nanocaps are still compact under as shown in Figure S2a. The low concentration of TiO_2 addition, for example, sputtering power 20W, shows little effects on Ag nanocaps, which is quite similar to Ag nanocaps, as shown in Figure S2b. More TiO_2 addition results in smaller Ag nanoparticles, for example, the sputtering power 40W results in Ag nanoparticles with the size around 25nm as shown in Figure S2c, and the sputtering power 60W results in Ag nanoparticles with the size around 15nm, as shown in Figure S2d.