

Electronic Supplementary Information (ESI)

Single-Step Synthesis of Various Distinct Hierarchical Ag Structures

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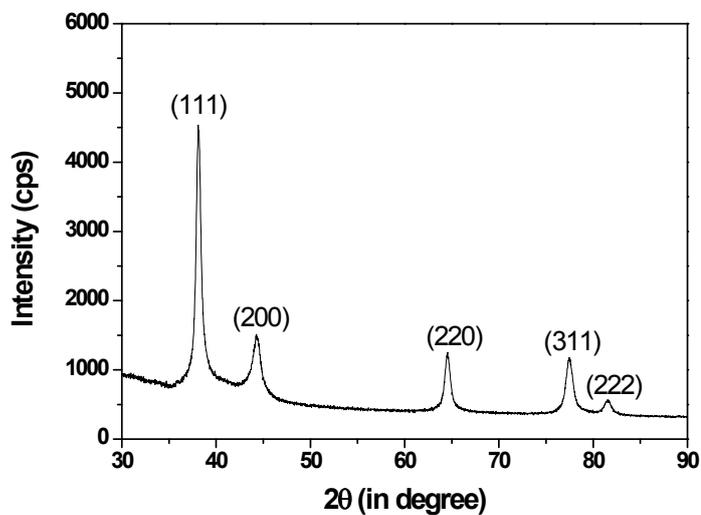


Figure S1. XRD pattern collected from Ag nanostructures obtained by the addition of 800 μL of 30mM trisodium citrate into the mixture of 1ml 1mM cysteamine (1mM) and 1 ml AgNO_3 (10 mM) followed by the addition of 1 ml AA (10mM).

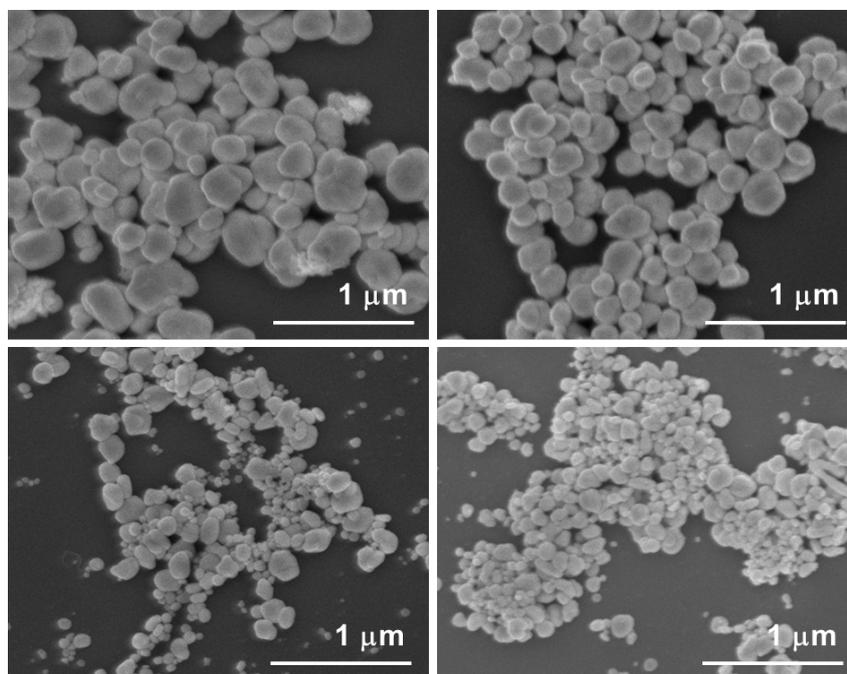


Figure S2. SEM images of Ag nanostructures obtained in the absence of cysteamine, by adding (a) 50 μL , (b) 100 μL , (c) 500 μL and (d) 1000 μL of SC (30 mM) into 1mL AgNO_3 (10 mM), followed by the addition of 1 mL AA (10 mM).

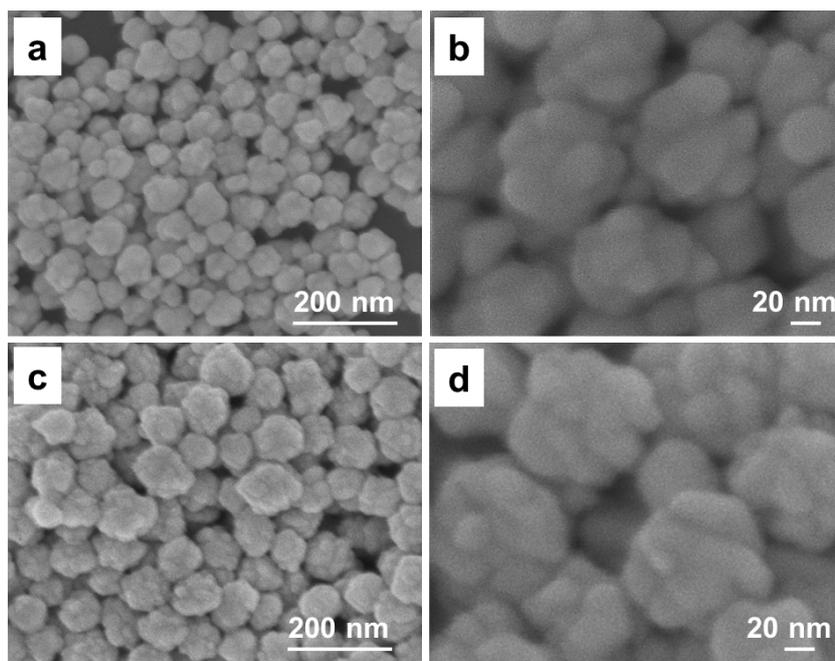


Figure S3. SEM images of Ag nanostructures obtained in the absence of SC, by adding 1ml of (a & b) 1 mM and (c & d) 10 mM cysteamine into 1mL AgNO₃ (10 mM), followed by the addition of 1 mL AA (10 mM).

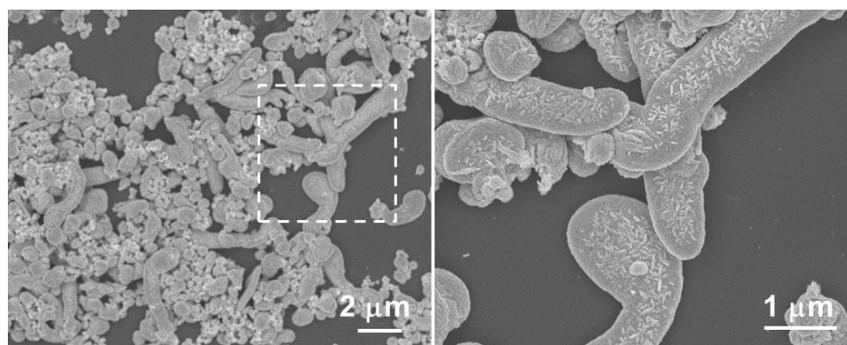


Figure S4. SEM images of Ag hierarchical structures obtained by the addition of 50 μL SC (30 mM), 1.5 ml glucose (30 mM), and 1ml cysteamine (1 mM) into 1 ml AgNO₃ (10 mM) followed by the addition of 1 ml AA (10 mM).

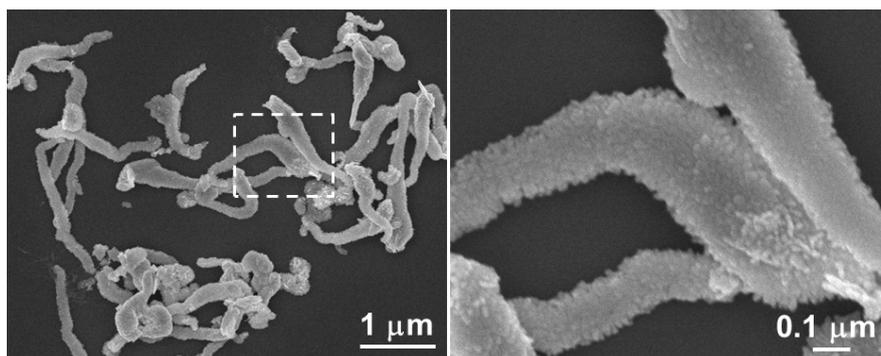


Figure S5. SEM images of Ag hierarchical structures obtained by the addition of 200 μL SC (30 mM), 1.5 ml glucose (30 mM), and 1ml cysteamine (1 mM) to 1 ml AgNO_3 (10 mM) followed by the addition of 1 ml AA (10 mM).

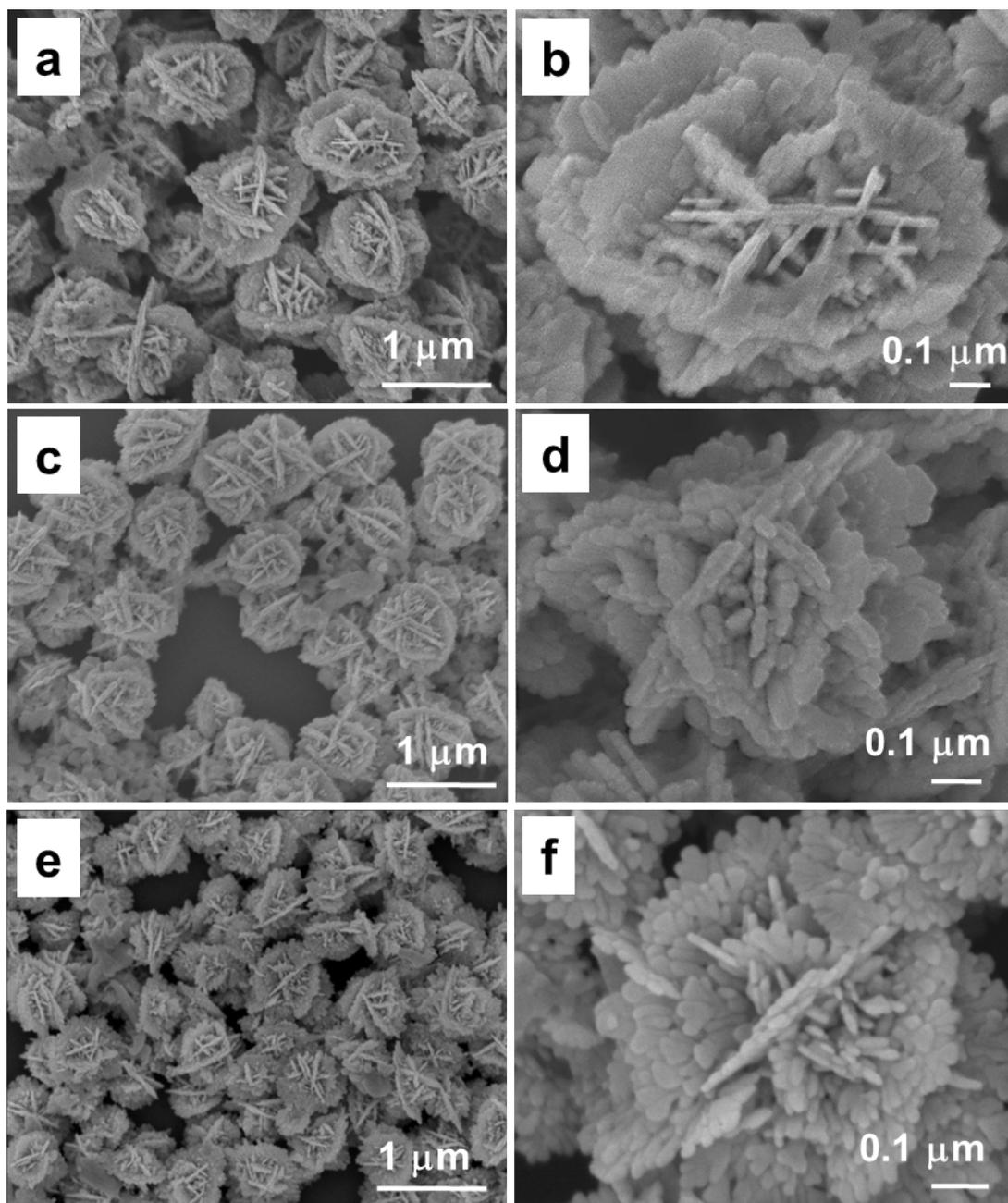


Figure S6. SEM images of Ag hierarchical structures obtained by using different concentrations of SC in a fixed amount of MPA and AgNO₃. Structures obtained using (a,b) 50 μL, (c,d) 100 μL, and (e,f) 200 μL of SC (30mM) in a mixture of 1ml MPA (1mM), 1 ml AgNO₃ (10 mM) and 1 ml AA (10 mM).

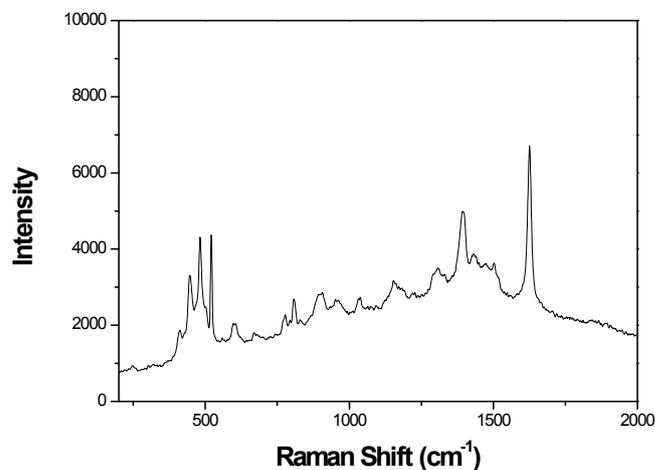


Figure S7. Raman spectrum from 10 μl of 10 mM MB deposited on silicon wafer.

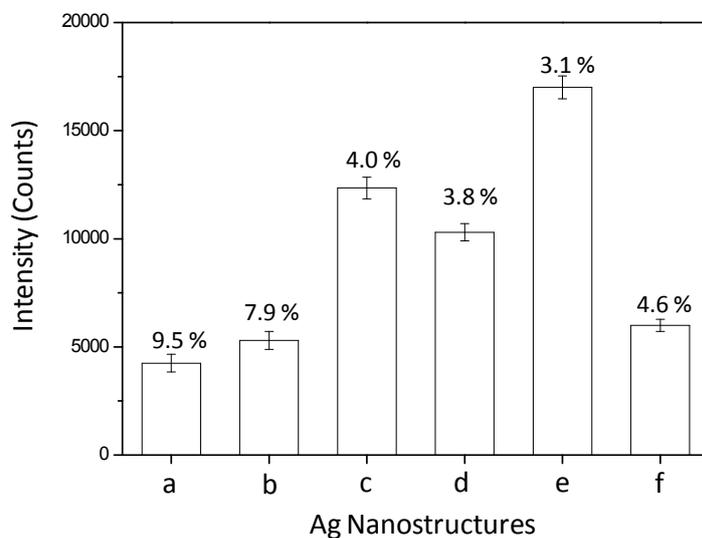


Figure S8. Intensities of most intense Raman peak (1624cm^{-1}) using 10^{-8} M MB collected from different Ag nanostructures as presented in Fig. 4. In each measurement, five SERS spectra were collected from five random positions on the substrate. Relative standard deviation (RSD) values of corresponding measurements are presented in the figure.