

Supporting Information

Thiosulfate-Mediated Seeded Growth of Au@AuAg Yolk-Shell Nanocubes with Surface Concavity: Optical and Catalytic Properties

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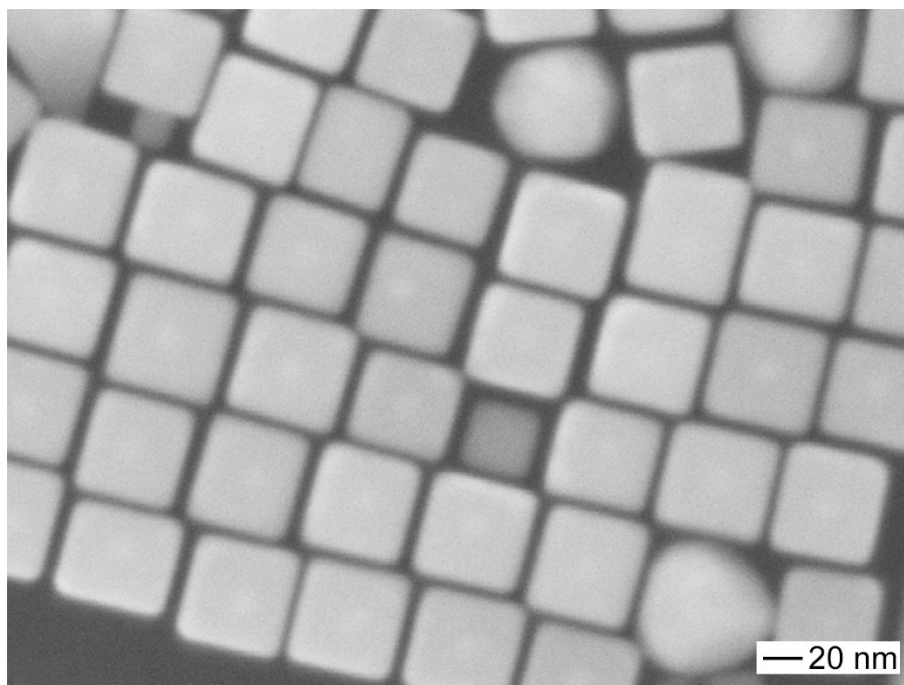


Figure S1. SEM image of Au@Ag core-shell nanocubes.

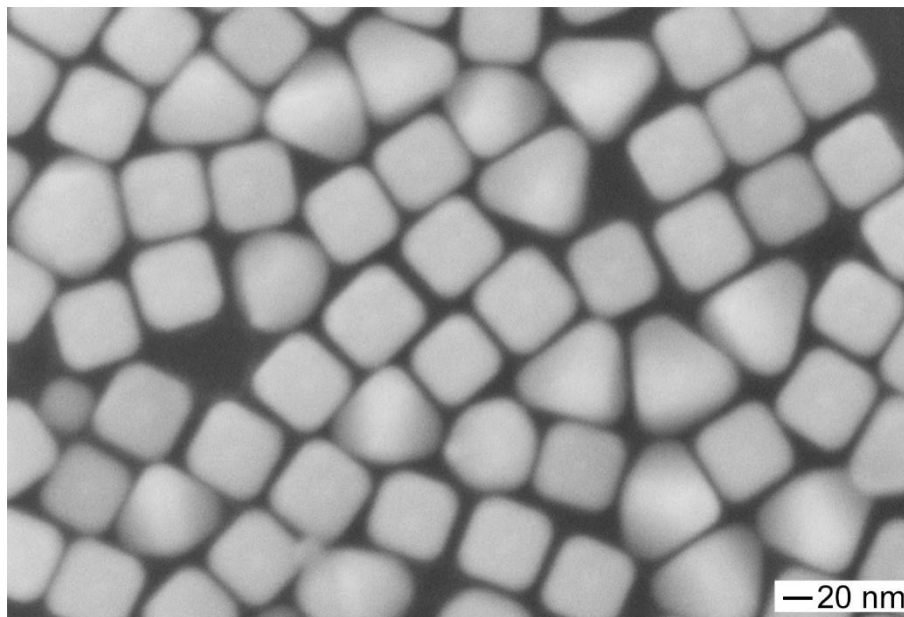


Figure S2. SEM image of products obtained by treating Au@Ag core-shell nanocubes with $\text{Na}_2\text{S}_2\text{O}_3$ (25 pmol).

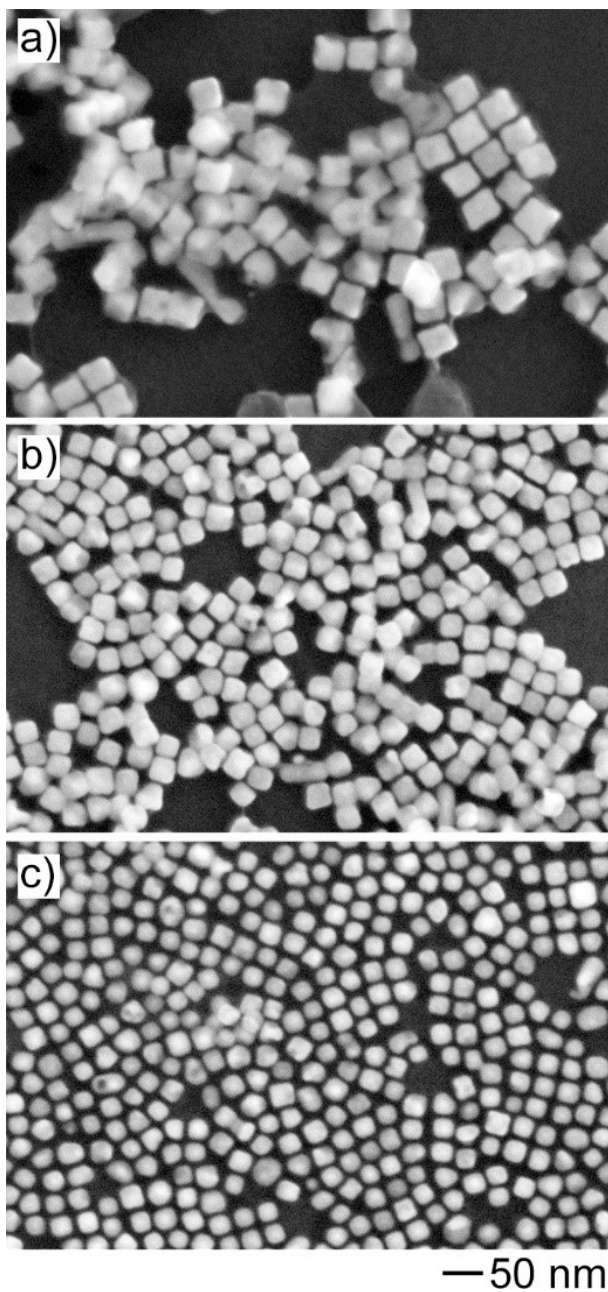


Figure S3. Effect of seed amount. SEM images of products obtained *via* the standard procedure, except that the volume of 10-nm Au seed stock solution was tuned to be a) 20 μL , b) 50 μL , and c) 100 μL , respectively.

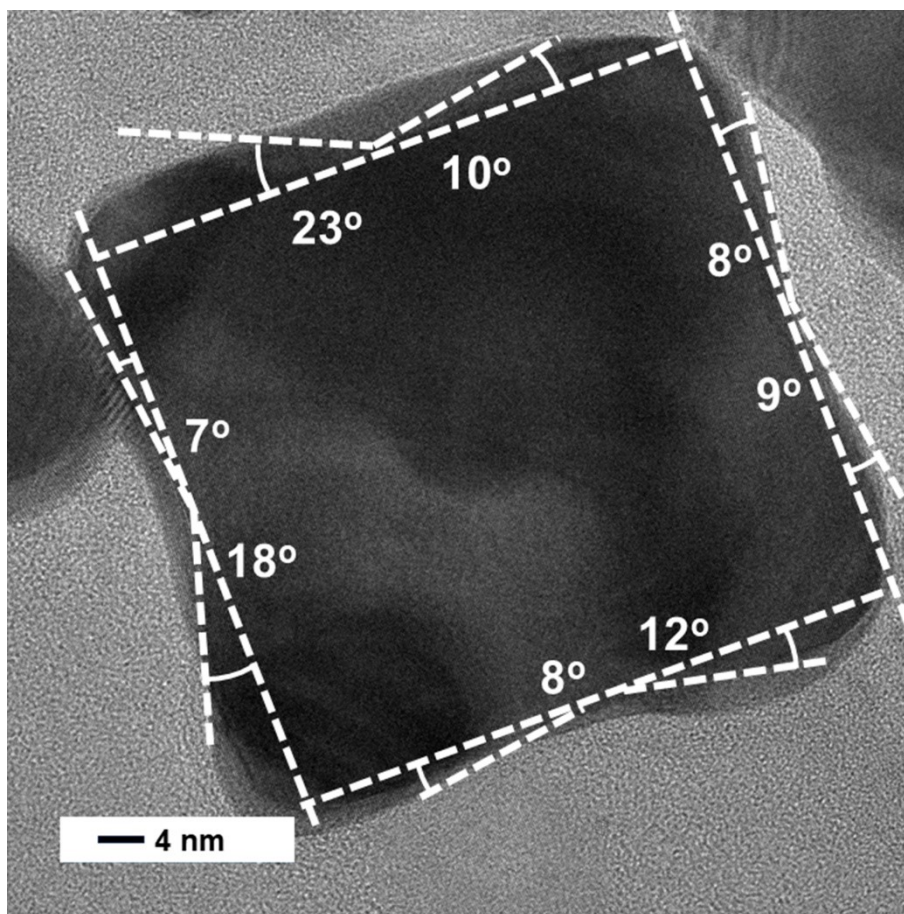


Figure S4. TEM image of an individual Au@AuAg YSCNC. The dash lines dictate the curved surface with the projection angle labeled.

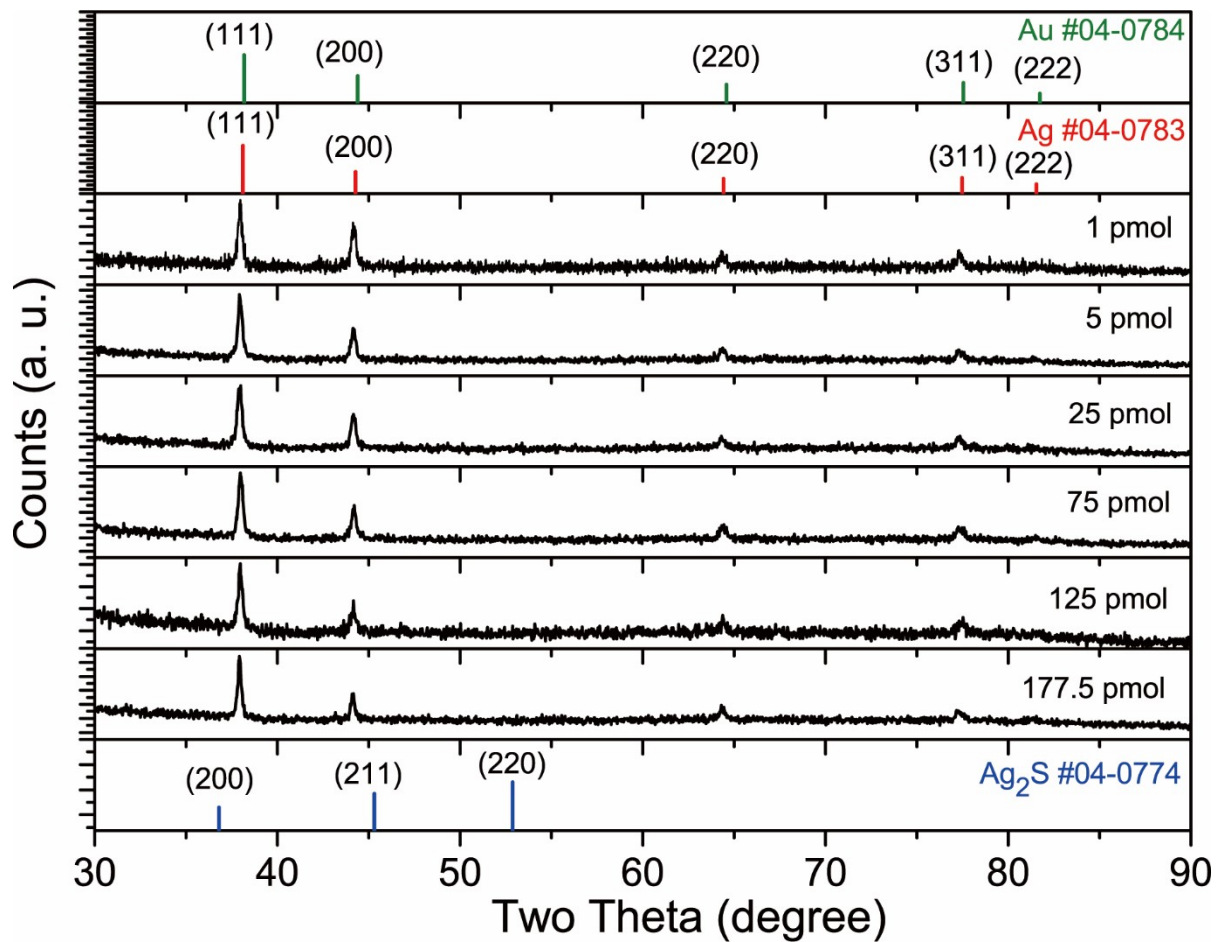


Figure S5. XRD pattern of the products obtained *via* the standard procedure, except that no H₂AuCl₄ was added and the amount of Na₂S₂O₃ was varied.

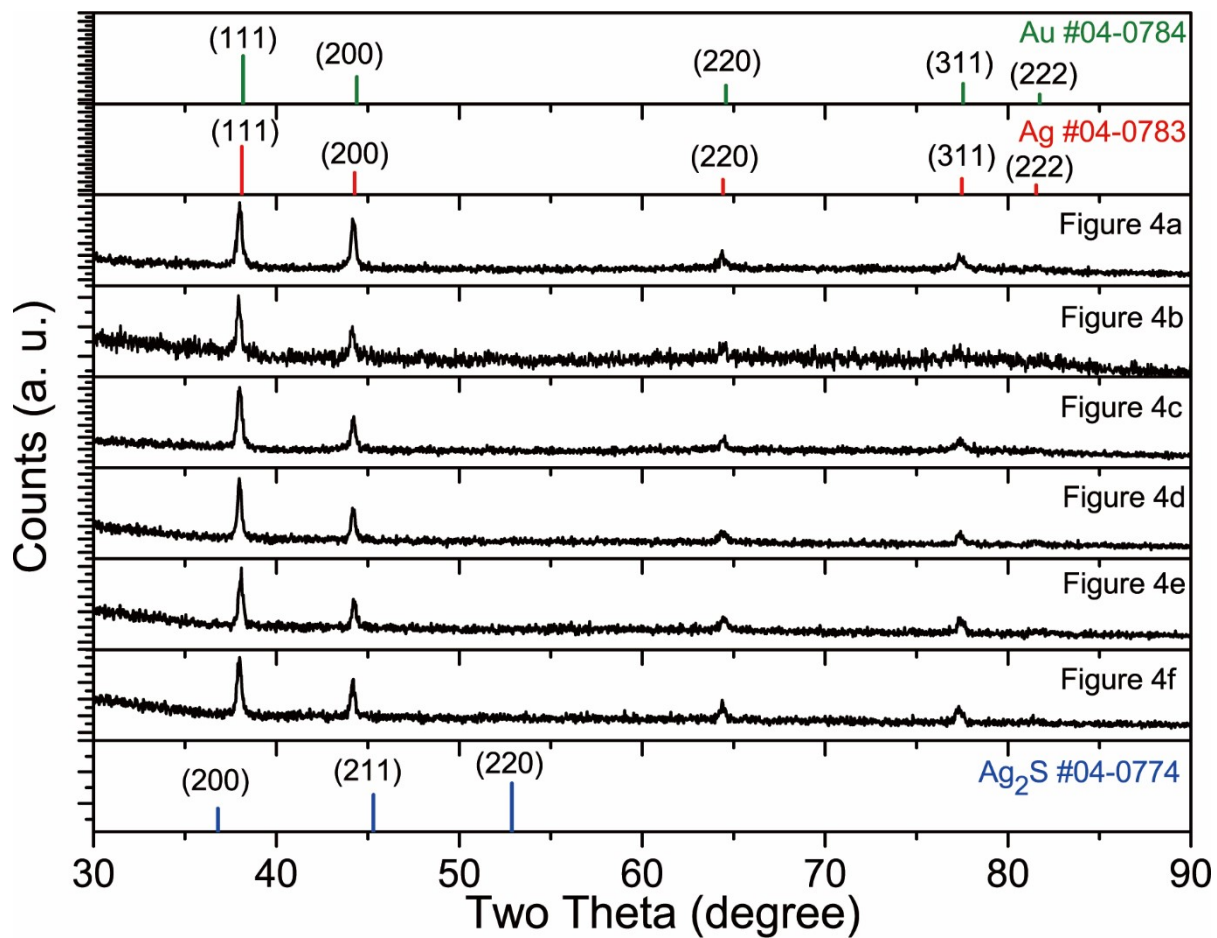


Figure S6. XRD patterns of the products shown in Figure 4.

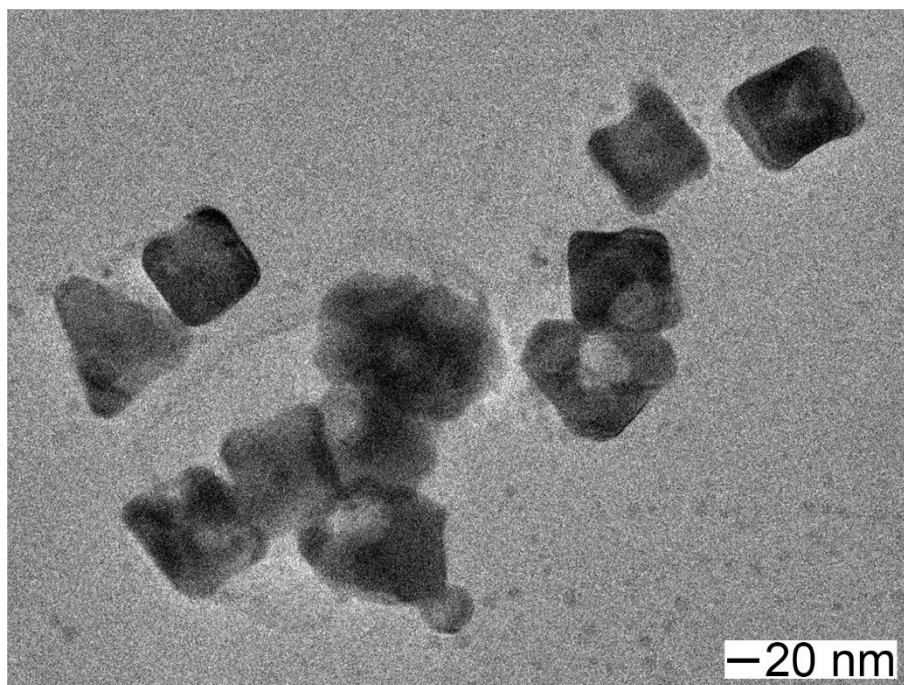


Figure S7. TEM image of Au@AuAg YSCNCs catalysts after the catalytic measurement.

Table S1. Summary of the relationship between projection angle and facet index.

Projection angle (°)	Facet index ({hkl})
23.2	730
12.5	920
16.0	720
20.6	830

Table S2. Summary of binding energy peaks in XPS spectra.

Orbital	Sample	Binding Energy Peak (eV)	
Au 4f	Figure 4a	87.21	83.55
	Figure 4b	87.37	83.68
	Figure 4c	87.40	83.74
	Figure 4d	87.31	83.66
	Figure 4e	87.28	83.61
	Figure 4f	87.37	83.70
Ag 3d	Figure 4a	373.61	367.64
	Figure 4b	373.67	367.69
	Figure 4c	373.64	367.67
	Figure 4d	373.73	367.71
	Figure 4e	373.60	367.60
	Figure 4f	373.64	367.73
S 2p	Figure 4a	/	/
	Figure 4b	/	/
	Figure 4c	161.53	160.43
	Figure 4d	161.62	160.51
	Figure 4e	161.76	160.60
	Figure 4f	161.75	160.62