## **Electronic Supplementary Information**

## *In Situ* synthesized Au–Ag nanocages on graphene oxide nanosheets: a highly active and recyclable catalyst for the reduction of 4-nitrophenol

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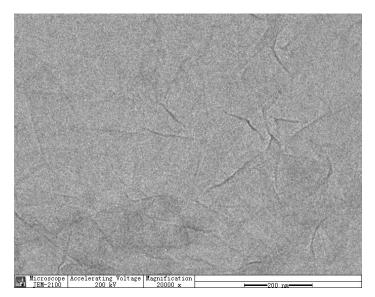


Fig. S1 TEM images of GO.

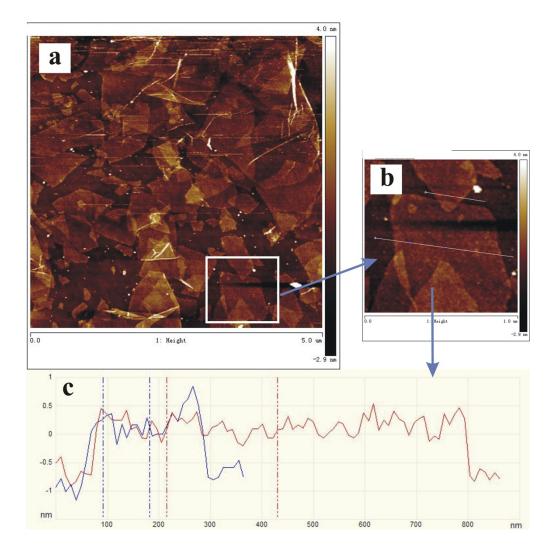


Fig. S2 (a and b) Tapping-mode AFM images of the GO adsorbed on a Si wafer by electrostatic self-assembly. (c) AFM cross section of the line shown in image (b).

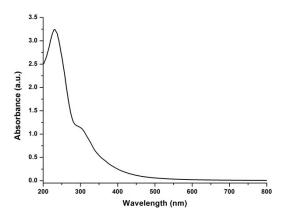


Fig. S3 UV-vis spectrum image of GO.

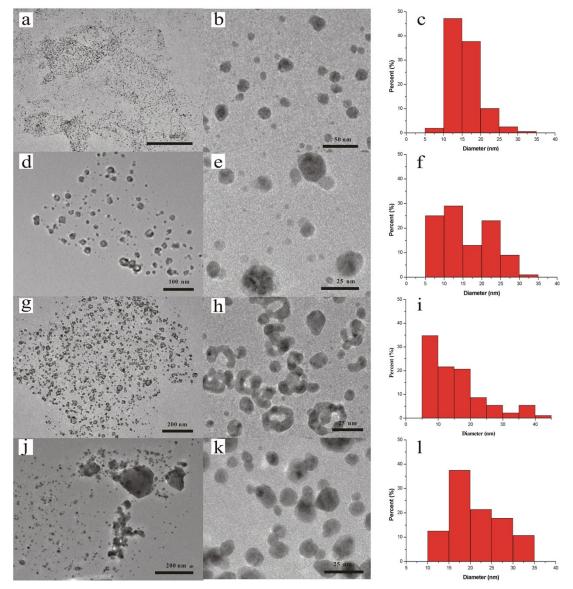


Fig. S4 Typical low- and high-magnification TEM images of the obtained nanoparticle/GO nanocomposites as well as the particle size distribution of the nanoparticles: (a-c) AgNPs/GOs, (d-f) pre-AuAgNC/GO, (g-i) AuAgNC/GO, and (j-l) post-AuAgNC/GO.