Electronic Supplementary Information

Surfactant-free synthesis of reduced graphene oxide supported porous PtAu alloyed nanoflowers with improved catalytic activity

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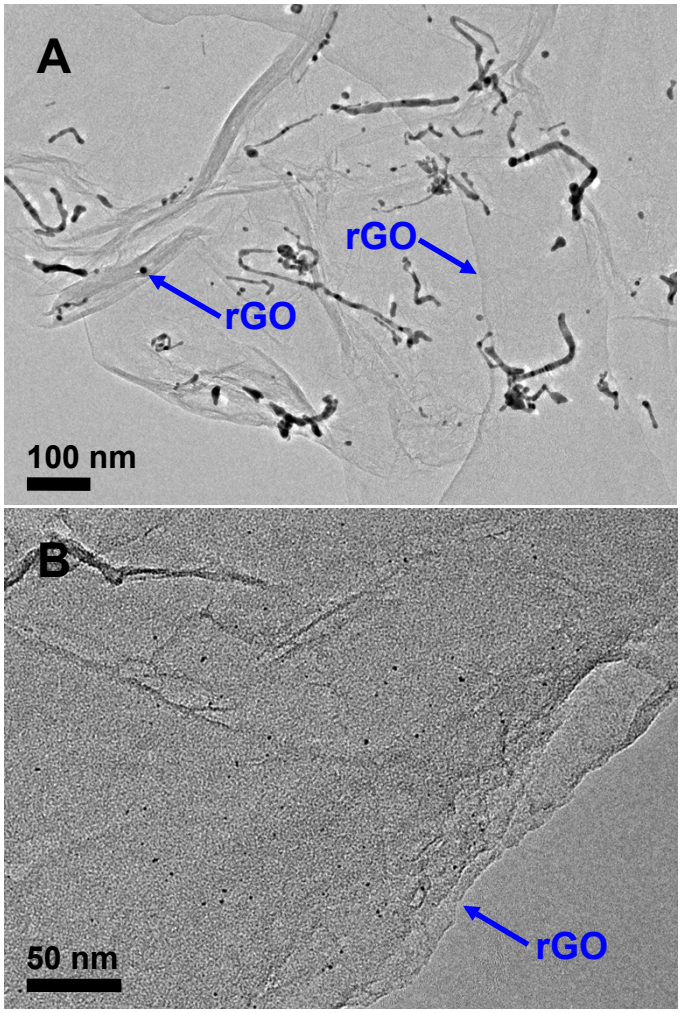

Fig. S1 TEM images of monometallic Au NCs/rGO (A) and Pt NCs/rGO (B).

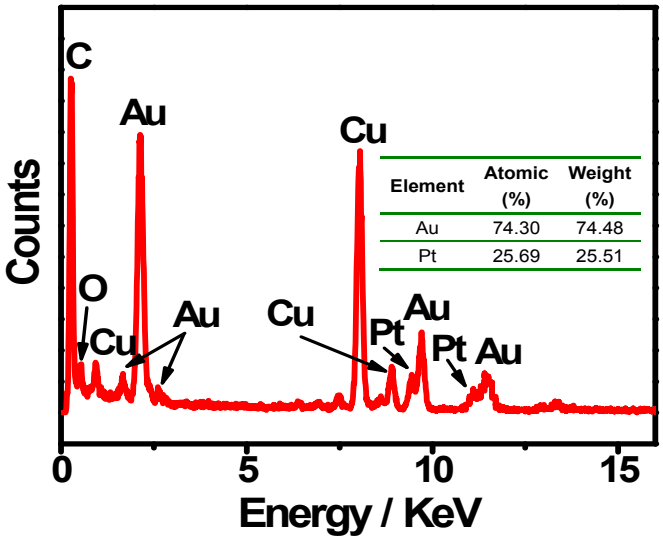

Fig. S2 EDS spectrum of PtAu-nanoflowers/rGO.

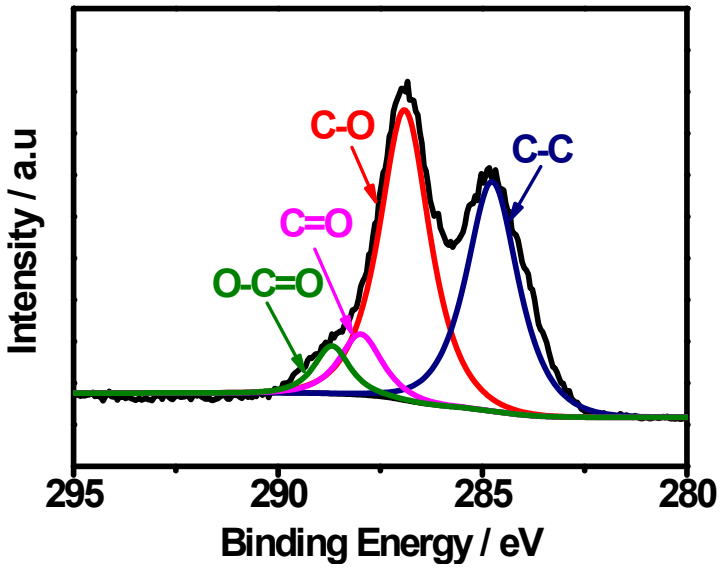

Fig. S3 XPS spectra of GO.

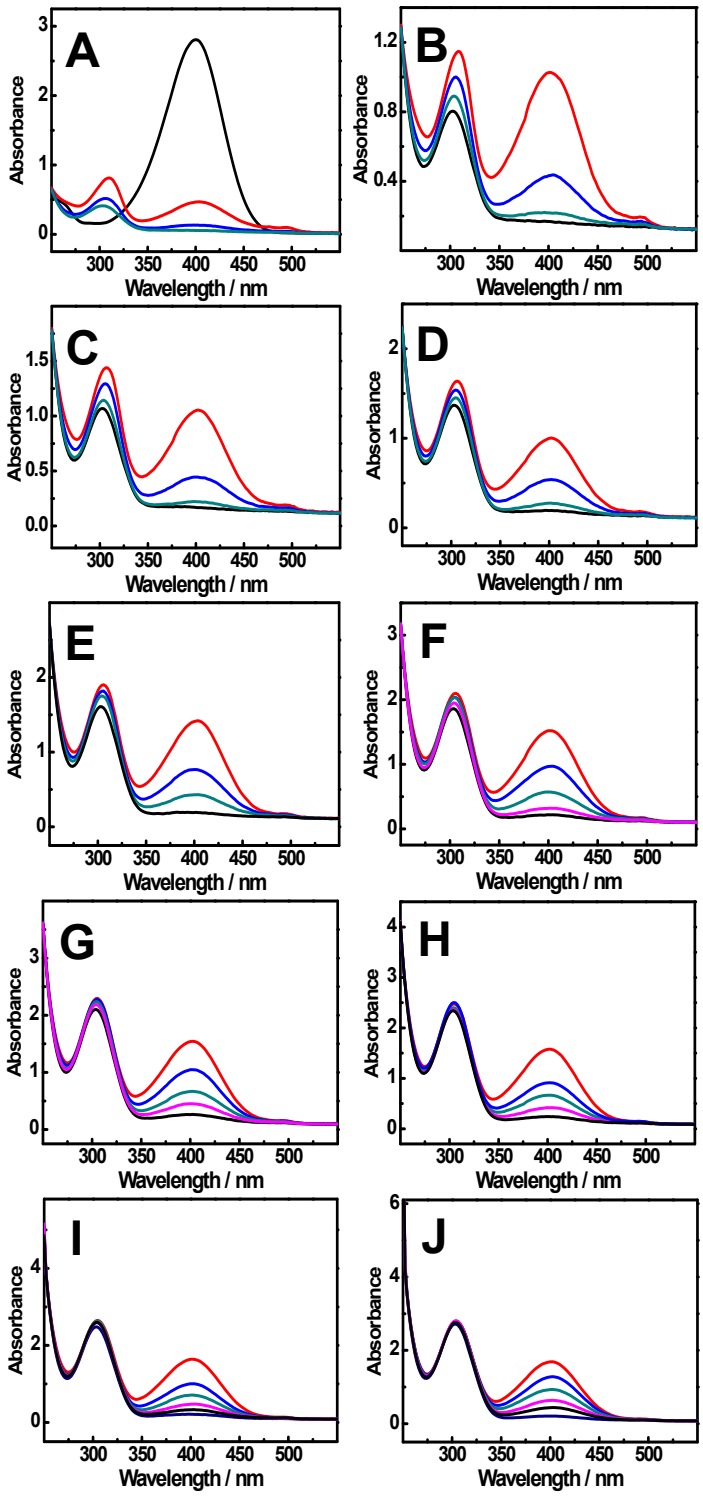

Fig. S4 Time-dependent UV-vis spectral changes in ten successive cycles of 4-NP catalyzed reduction reaction in the presence of 0.05 mg PtAu-nanoflowers/rGO.

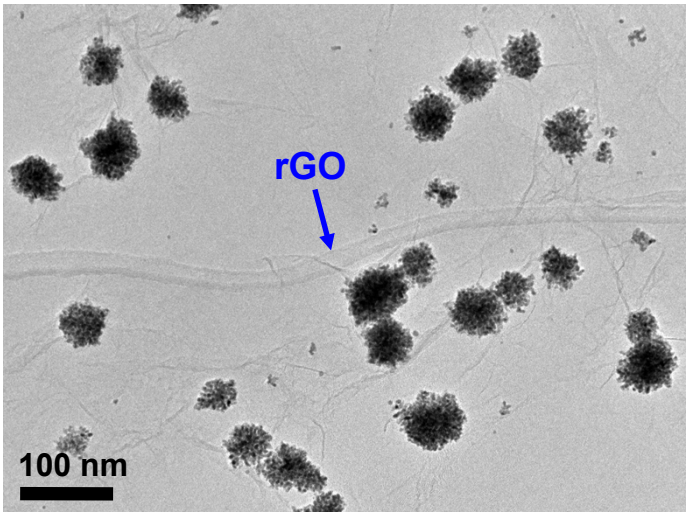

Fig. S5 TEM image of PtAu-nanoflowers/rGO after ten successive recycling reduction of 4-NP.

Table S1 Comparison of the catalytic performances of PtAu-nanoflowers/rGO, Pt/C, Pt NCs/rGO, and Au NCs/rGO for the reduction of 4-NP.

catalysts	k_{app} ($\times 10^{-3}$ s^{-1})	k_{nor} (s^{-1} g^{-1})
PtAu-nanoflowers/rGO	12.4	826.7
Pt/C	7.08	283.2
Pt NCs/rGO	4.96	99.2
Au NCs/rGO	6.18	123.6