Supporting information

Fe_3O_4 and Au nanoparticles dispersed on graphene support as a highly active catalyst toward the reduction of 4-nitrophenol

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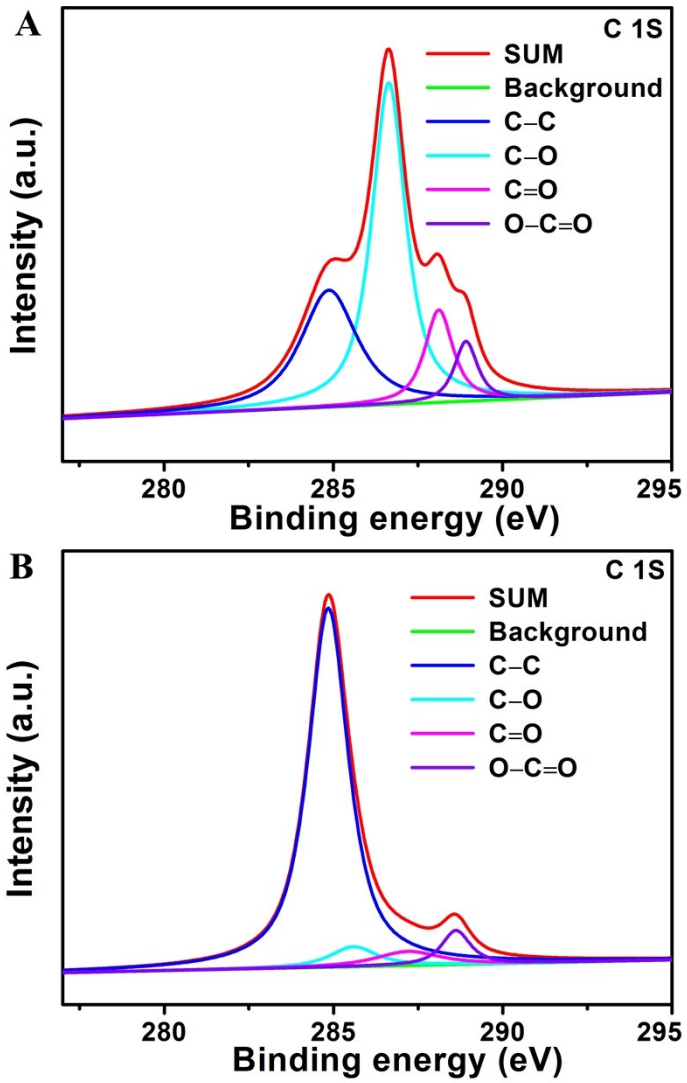

Fig. S1. XPS C1s spectrum of GO (A) and rGO/Fe_3O_4/Au (B).

Fig. S1 gives deconvolution of the XPS C1s core-level spectrum of rGO/Fe_3O_4/Au and GO. Compared with GO in **Fig. S1**, the increased area proportion of the peak, which is due to the contributions from the C–C peak (284.8 eV), while the peak intensities of oxidized carbon, especially the peak of C–O decrease dramatically, indicating that GO has been well deoxygenated to form graphene. However, there are still some residual oxygen-containing functionalities on the graphene sheets due to the incomplete reduction.

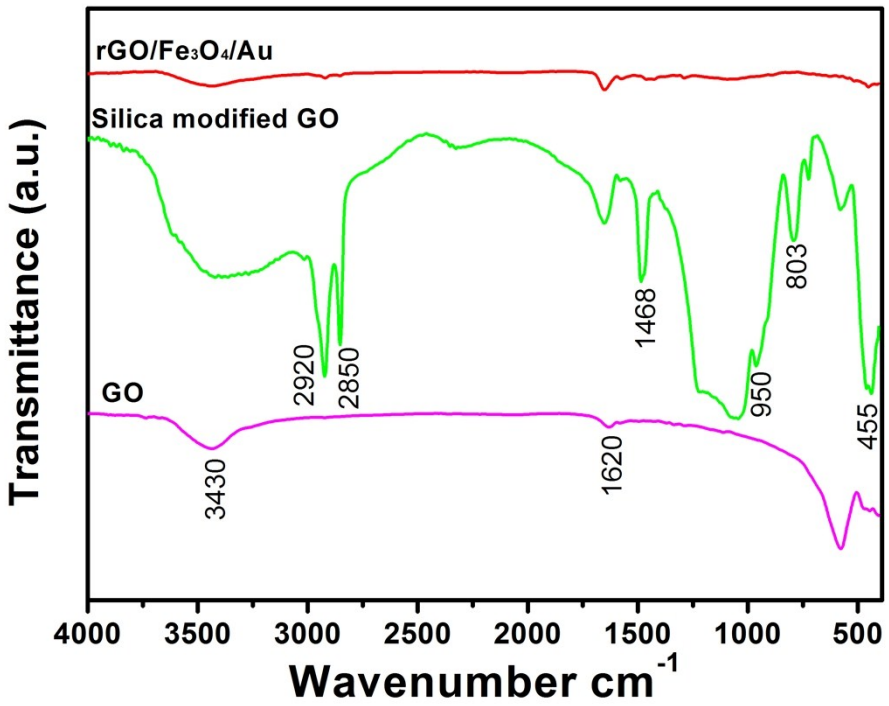

Fig. S2. FT-IR spectra of GO, silica modified GO, and rGO/Fe_3O_4/Au.