

Supporting Information

Size-Dependent Catalytic Properties of Au Nanoparticles Supported on Hierarchical Nickel Silicate Nanostructures

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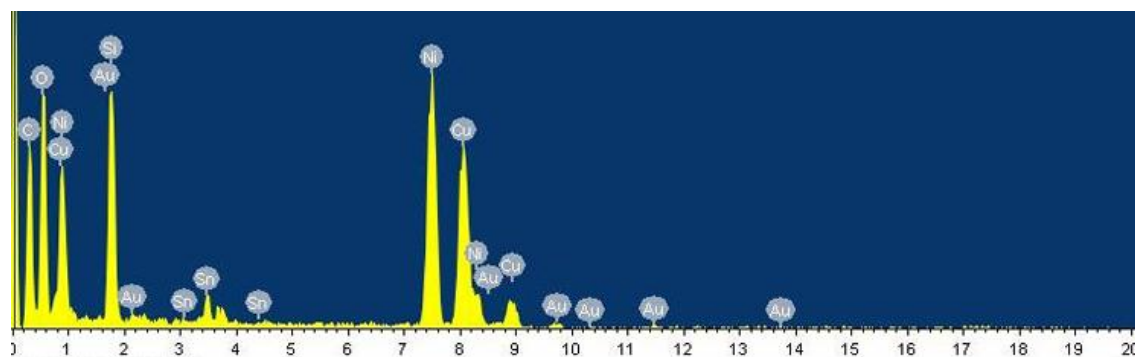


Fig. S1 The EDX spectra of the as-prepared AuNPs/NiSiO-3 nanocomposites.

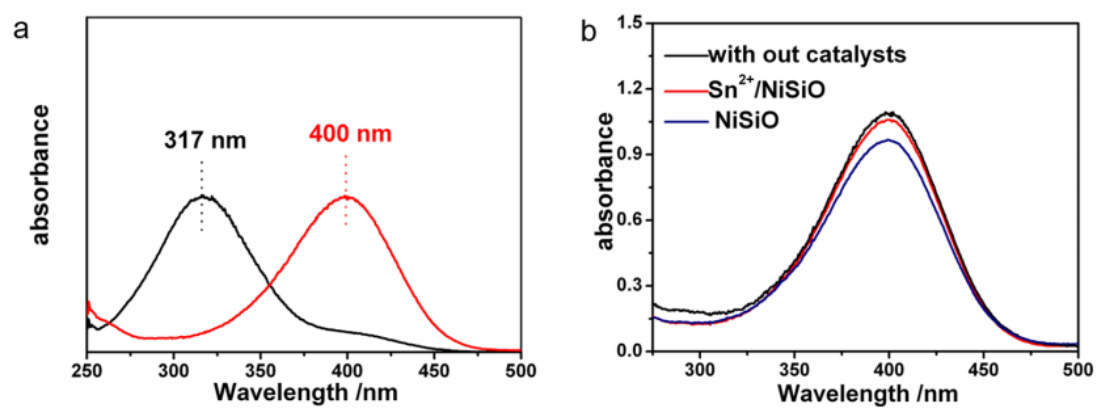


Fig. S2 (a) UV-vis spectra of 4-nitrophenol before and after adding NaBH_4 solution; (b) UV-Vis absorption spectra of 4-NP in the presence of NaBH_4 ; NaBH_4 and NiSiO ; NaBH_4 and $\text{Sn}^{2+}/\text{NiSiO}$ for 2h.

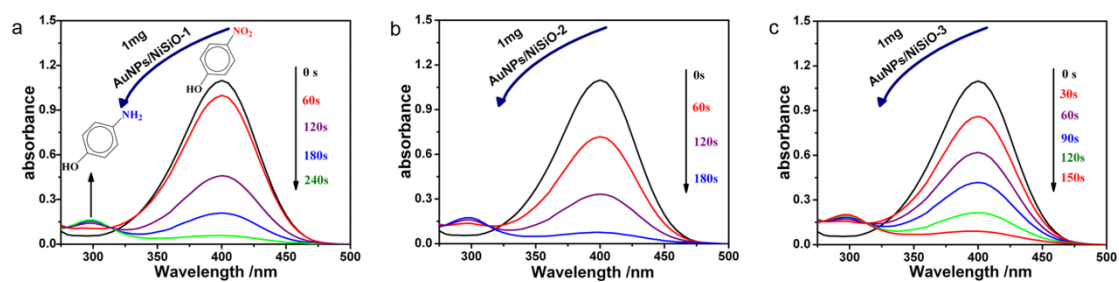


Fig. S3 UV-Vis absorption spectra during the catalytic reduction of 4-NP over AuNPs/NiSiO nanocomposites: (a) AuNPs/NiSiO-1; (b) AuNPs/NiSiO-2; (c) AuNPs/NiSiO-3.

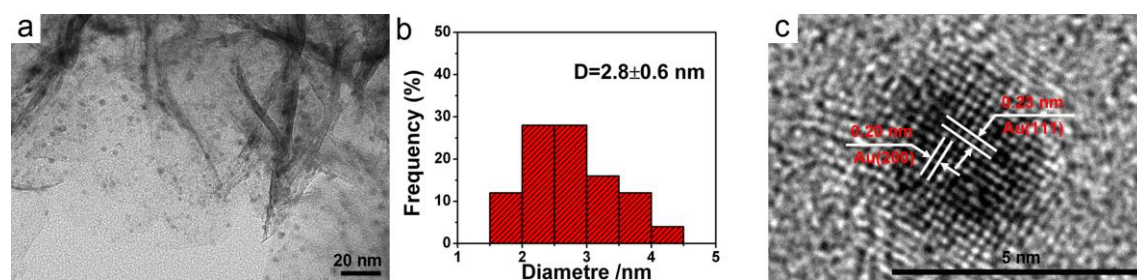


Fig. S4 The high magnification TEM image of AuNPs/NiSiO-3 nanocomposites (a) and the related size distribution histogram (b) and HRTEM image (c) of AuNPs after 5 cycles of the catalytic reduction reactions.