

Supporting Information

Stabilization of Ultrafine Metal Nanocatalysts on Thin Carbon Sheets

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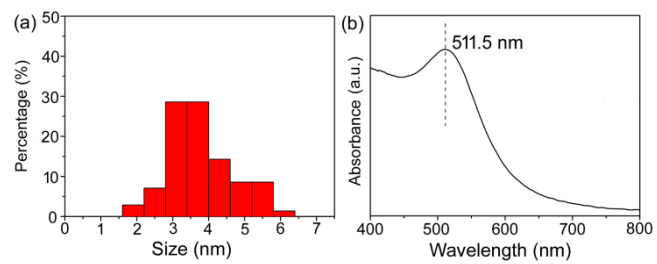


Fig. S1 (a) Size distribution of AuNPs based on one hundred dark dots in Fig. 1g; (b)

UV-vis absorption spectrum of the as-prepared AuNPs.

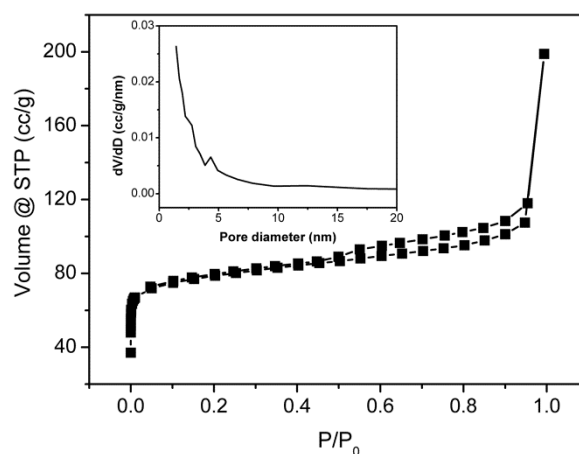


Fig. S2 The N₂ adsorption–desorption isotherm of Au/C hollow spheres with shell thickness of 15 nm produced by calcination at 600 °C. Inset: corresponding pore size distribution.

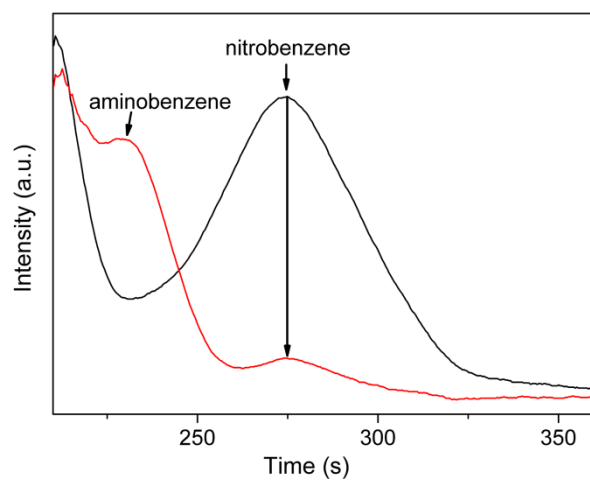


Fig. S3 UV-vis spectral change of reduction of nitrobenzene catalyzed by Au/C thin sheets with carbon thickness of 15 nm prepared by calcination at 600 °C.

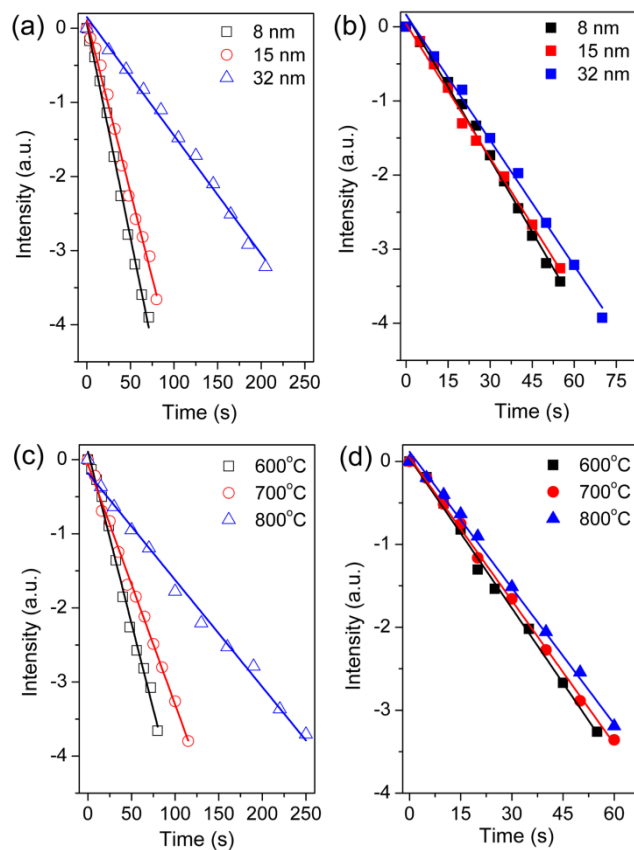


Fig. S4 Kinetic analysis of the catalytic reductions of nitrobenzene using a) Au/C hollow spheres and b) Au/C thin sheets calcined at 600 °C with shell thickness 8, 15 and 32 nm; c) Au/C hollow spheres and d) Au/C thin sheets carbonized at 600 °C, 700 °C and 800 °C with shell thickness of 15 nm.

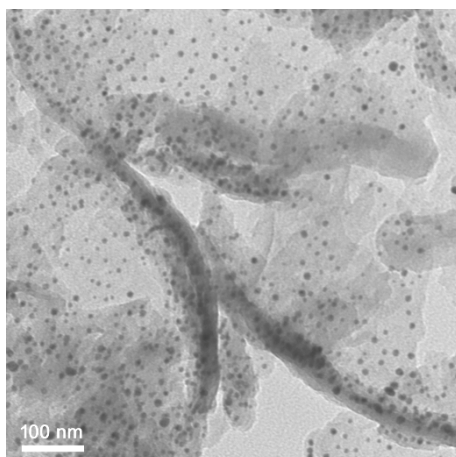


Fig. S5 TEM image of the Au/C thin sheets (600 °C, 15 nm thick) after ten cycles of reactions.

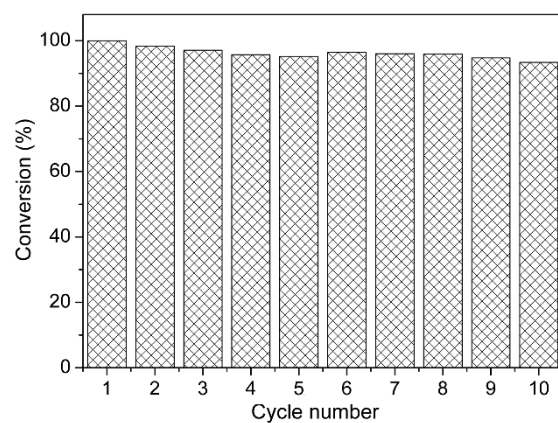


Fig. S6 Conversions of 4-nitrophenol in ten cycles catalyzed by Au/C thin sheets (800 °C , carbon thickness of 15 nm).