

Electronic supplementary information for

A facile construction of Au nanoparticles on copolymer ligand brushes modified graphene oxide nanoplatform with excellent catalytic properties

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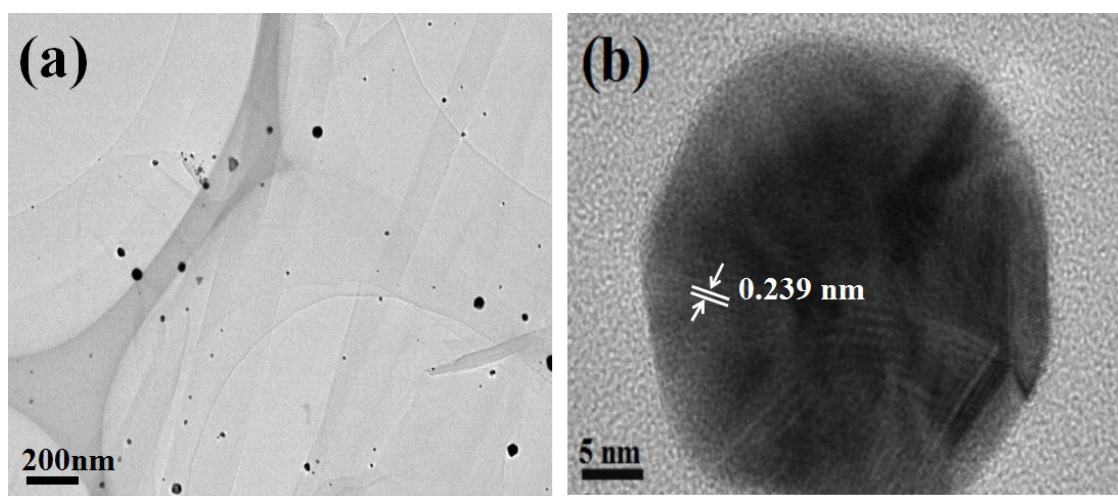


Fig. S1 TEM (a) and HRTEM (b) images of Au NPs-GO hybrid-2.

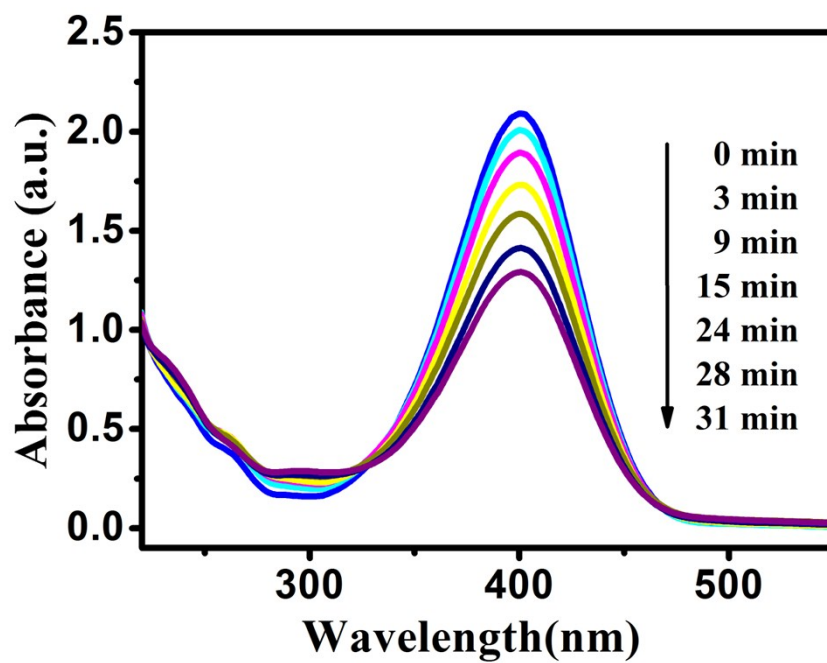


Fig. S2 UV-vis adsorption spectra of the reduction of 4-NP by NaBH₄ in the presence of Au NPs-GO hybrid-2.

Table S1. Comparison of catalytic activity for the reduction of 4-nitrophenol using Au NPs based hybrids as catalysts in some recent representative reports.

Publication	Catalyst	Moles of 4-NP (μmol)	Required Time (min)	Au content (μmol)	TOF (min^{-1})
Present Manuscript	Au NPs-GO	0.2	6	0.3×10^{-1}	1.11
<i>RSC Adv.</i> , 2014 , 4, 64816	graphene/PDA-Au	1.0	13	2.0×10^{-1}	0.38
<i>Small</i> , 2015 , 11, 5059	Au@HGN	100	3	30.0	1.12
<i>Mater.Sci. Semicond. Process.</i> , 2015 , 40, 621	Au/TiO ₂	0.3	16	0.3×10^{-3}	0.34
<i>J. Phys. Chem. C</i> , 2011 , 115, 6591	Fe ₃ O ₄ -Au	0.4	10	1.9	0.02
<i>RSC Adv.</i> , 2014 , 4, 64816	Graphene/PDA-Au	1.0	13	2.0×10^{-1}	0.38
<i>Green Chem.</i> , 2011 , 13, 651	Au-ECCG-CF	1.0	30	1.0	0.033
<i>J. Mater. Chem.</i> , 2012 , 22, 8426	Au/graphene	0.28	12	1.2×10^{-1}	0.19
<i>J. Mater.Chem.</i> , 2011 , 21, 789	Au@hollow silica	0.24	25	2×10^{-1}	0.05
<i>J. Am. Chem. Soc.</i> , 2010 , 132, 8466	Fe ₃ O ₄ @SiO ₂ - Au@mSiO ₂	0.5	15	3.4×10^{-1}	0.10