

Supporting Information

Study on high efficiency reduction of p-nitrophenol (4-NP) by $\text{Fe}(\text{OH})_3/\text{Fe}_2\text{O}_3@\text{Au}$ composite catalyst

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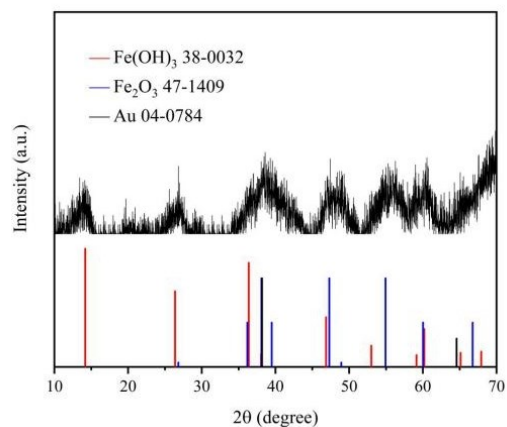


Fig. S1 X-ray powder diffraction (XRD) pattern of $\text{Fe}(\text{OH})_3/\text{Fe}_2\text{O}_3@\text{Au}$ sample.

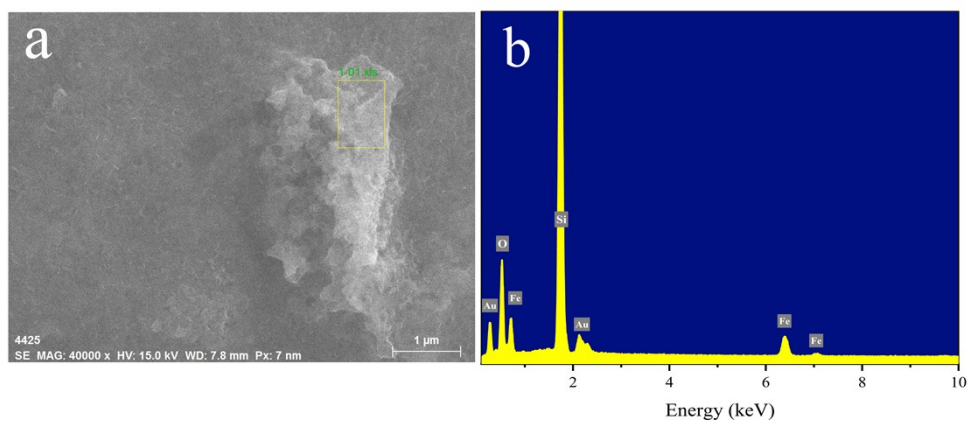


Fig. S2 (a) SEM and (b) EDX of the synthesized $\text{Fe}(\text{OH})_3/\text{Fe}_2\text{O}_3@\text{Au}$.

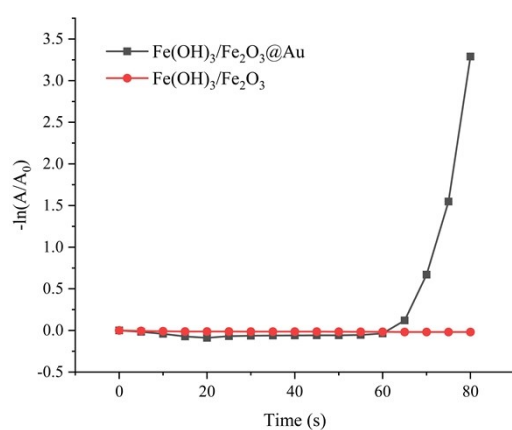


Fig. S3 Plots of $-\ln(A/A_0)$ versus reaction time t for the reduction of 4-NP catalyzed by $\text{Fe}(\text{OH})_3/\text{Fe}_2\text{O}_3@\text{Au}$ and $\text{Fe}(\text{OH})_3/\text{Fe}_2\text{O}_3$.

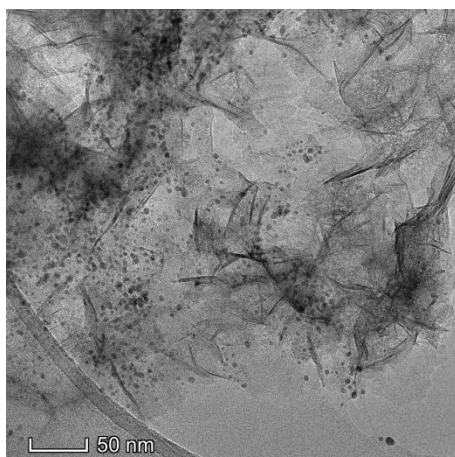


Fig. S4 The TEM image of Fe(OH)₃/Fe₂O₃@Au after three cycles of catalytic reduction of 4-NP.