

Supplementary Information

Recyclable Mimic Enzyme of Cubic Fe₃O₄ Nanoparticles Loaded on 5 Graphene Oxide-Dispersed Carbon Nanotubes with Enhanced Peroxidase-Like Catalysis and Electrocatalysis

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Table S1. Comparison of catalytic dynamic parameters between GCNT-Fe₃O₄ nanocomposite and HRP ^a

Catalysts	Substrates	K _m (mM)	V _{max} (10 ⁻⁸ M s ⁻¹)
GCNT-Fe ₃ O ₄	H ₂ O ₂	2.52	0.387
HRP ¹³	H ₂ O ₂	3.70	8.71
GCNT-Fe ₃ O ₄	TMB	0.118	0.251
HRP ¹³	TMB	0.434	10.0

15 ^a K_m is the Michaelis constant, V_{max} is the maximal reaction velocity.

13. L. Z. Gao, J. Zhuang, L. Nie, J. B. Zhang, Y. Zhang, N. Gu, T. H. Wang, J. Feng, D. L. Yang, S. Perrett and X. Yan, *Nature Nanotech.* 2007, 2, 577-583.

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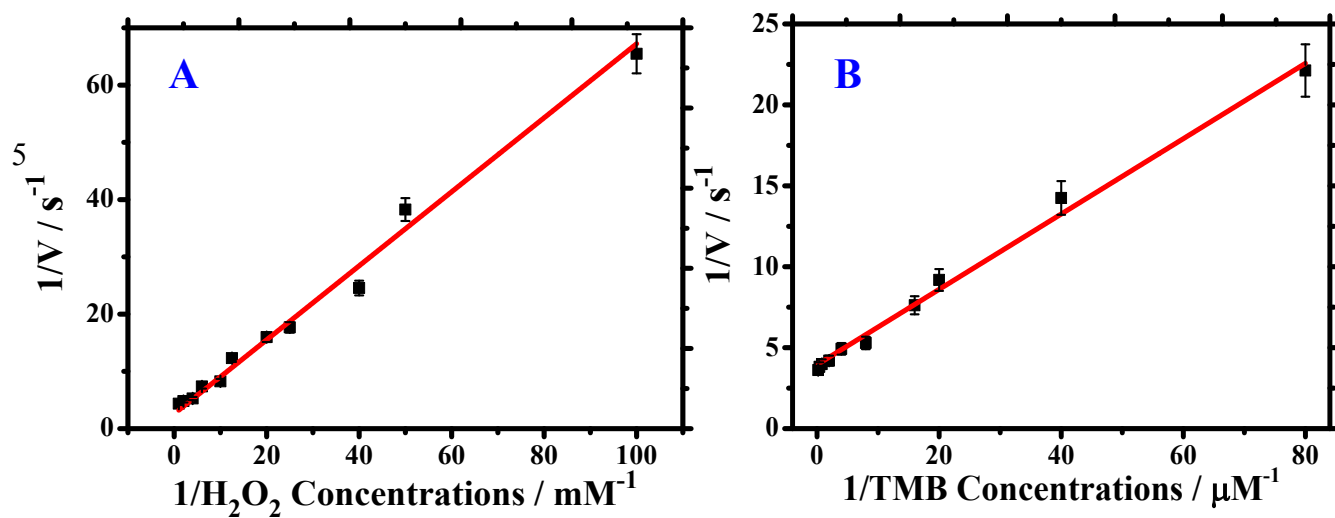


Fig. S1. Double-reciprocal plots of catalysis activities of the GCNT-Fe₃O₄ nanocomposites for (A) H₂O₂, and (B) TMB, alternatively at a fixed concentration of one substrate versus varying concentration of the second substrate. The y-axis values are calculated from the observed colorimetric absorbance values.