

Electronic Supplementary Information

**The effective peroxidase-like activity of chitosan-functionalized
CoFe₂O₄ nanoparticles for chemiluminescence sensing of hydrogen
peroxide and glucose**

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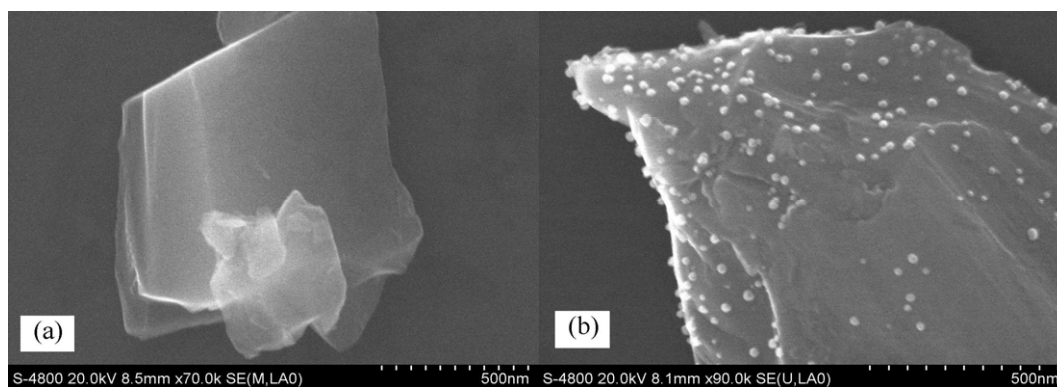


Figure S1. SEM image of chitosan (a) and CF-CoFe₂O₄ NPs (b).

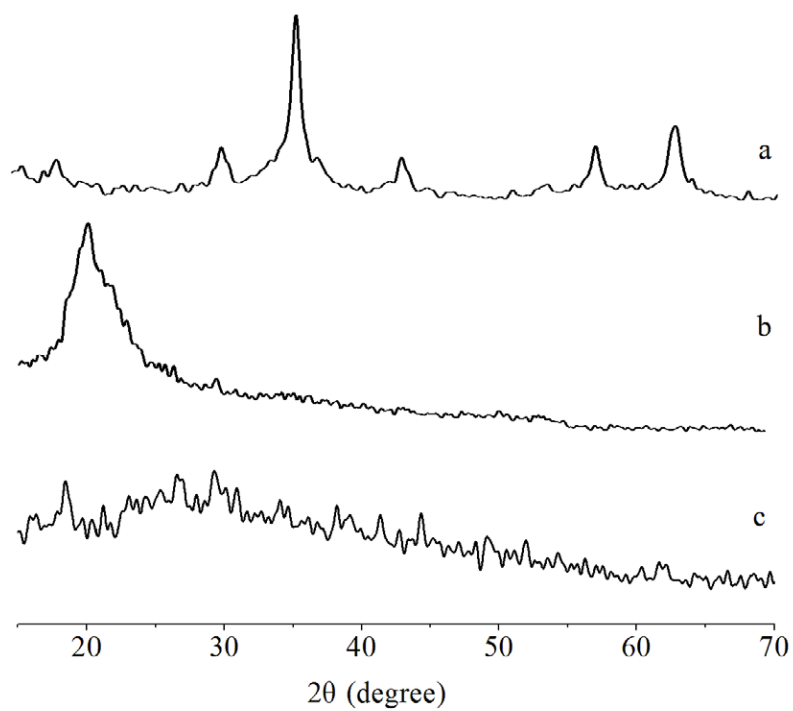


Figure S2. XRD of CoFe₂O₄ NPs (a), chitosan (b) and CF-CoFe₂O₄ NPs (c).

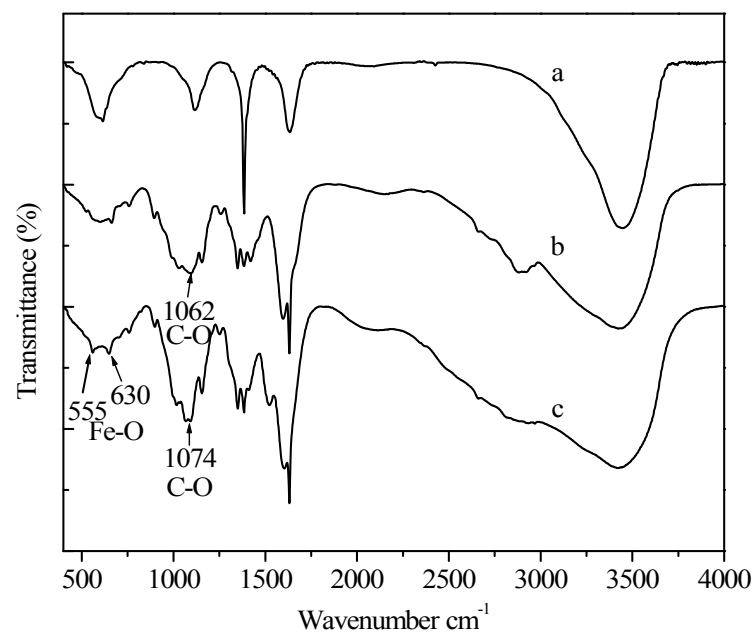


Figure S3. FT-IR spectra of CoFe_2O_4 NPs (a), chitosan (b) and CF- CoFe_2O_4 NPs (c).

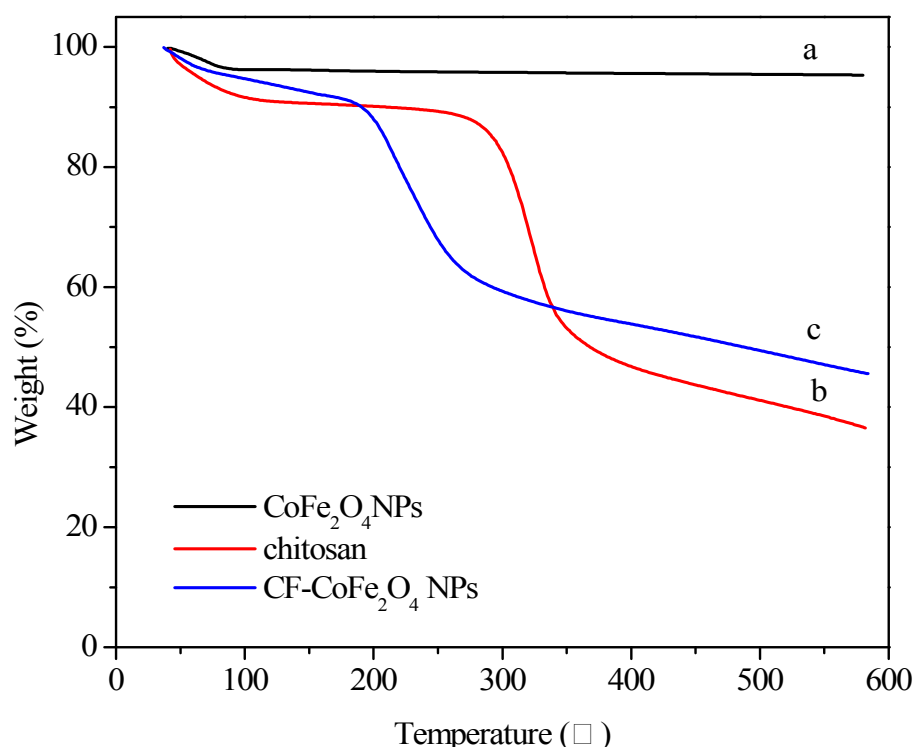


Figure S4. TG curves of CoFe_2O_4 NPs (a), chitosan (b) and CF- CoFe_2O_4 NPs (c).

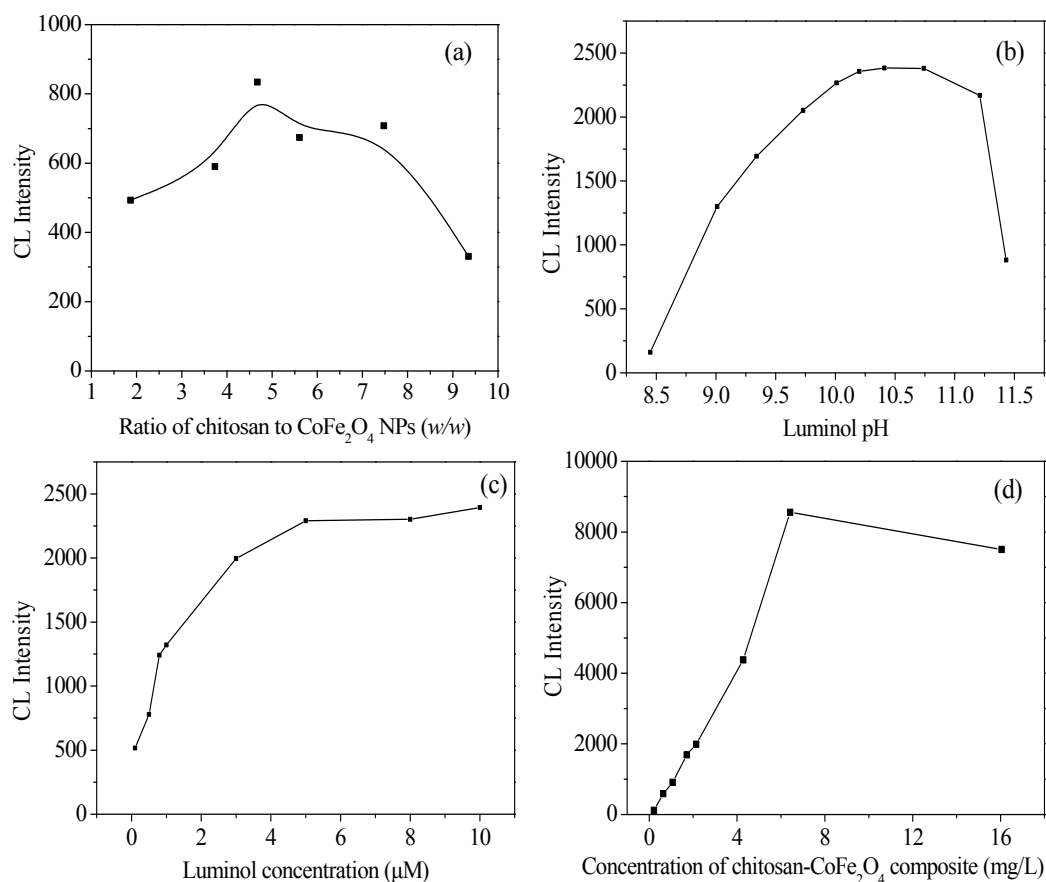


Figure S5. Effects of the reaction conditions on the luminol/H₂O₂/CF-CoFe₂O₄ NPs CL system. **(a)** The effect of mass ratio of chitosan to CoFe₂O₄ in the CF-CoFe₂O₄ NPs composites. Luminol: 1.0×10^{-6} M (in pH=10.41); H₂O₂: 1.0×10^{-6} M; CF-CoFe₂O₄ NPs: 2.14 mg L^{-1} (as CoFe₂O₄ NPs). **(b)** Effect of pH of luminol. Luminol: 5.0×10^{-6} M; H₂O₂: 1.0×10^{-6} M; CF-CoFe₂O₄ NPs composites: 2.14 mg L^{-1} (as CoFe₂O₄ NPs). **(c)** Effect of luminol concentration. pH 10.41 (0.1 M NaHCO₃; 0.1 M Na₂CO₃=2:8); H₂O₂: 1.0×10^{-6} M; CF-CoFe₂O₄ NPs composites: 2.14 mg L^{-1} (as CoFe₂O₄ NPs). **(d)** Effect of CF-CoFe₂O₄ concentration. Luminol: 5.0×10^{-6} M (in pH=10.41); H₂O₂: 1.0×10^{-6} M.