

Electronic Supplementary Information

Carboxyl functionalized mesoporous polymer: A novel peroxidase-like catalyst for H₂O₂ detection

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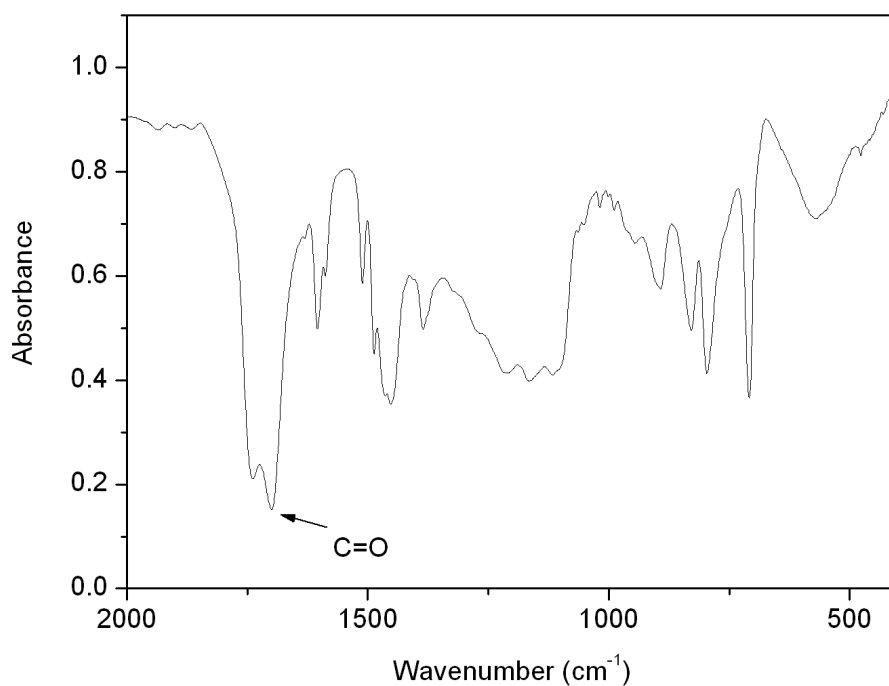


Fig. S1 The FT-TR spectrum of CFMP.



Fig. S2 The photographs of ABTS solution (left), ABTS-H₂O₂ (middle) and ABTS-H₂O₂-CFMP solution in pH 4.0 acetate buffer. (ABTS, 0.1 mM; H₂O₂, 44 μ M; CFMP, 1 mg/mL; reaction time: 2 h).

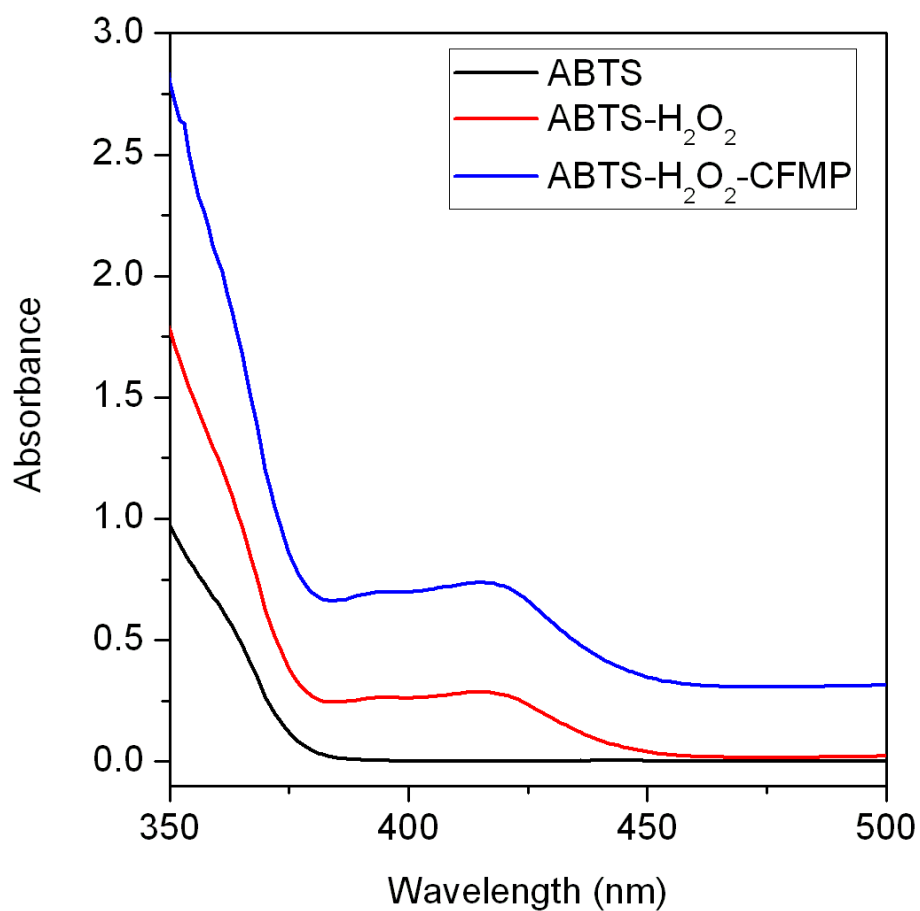


Fig. S3 UV-vis spectra of ABTS solution (black line), ABTS-H₂O₂ (red line) and ABTS-H₂O₂-CFMP (blue line) in pH 4.0 acetate buffer. (ABTS, 0.1 mM; H₂O₂, 44 μM; CFMP, 1 mg/mL).

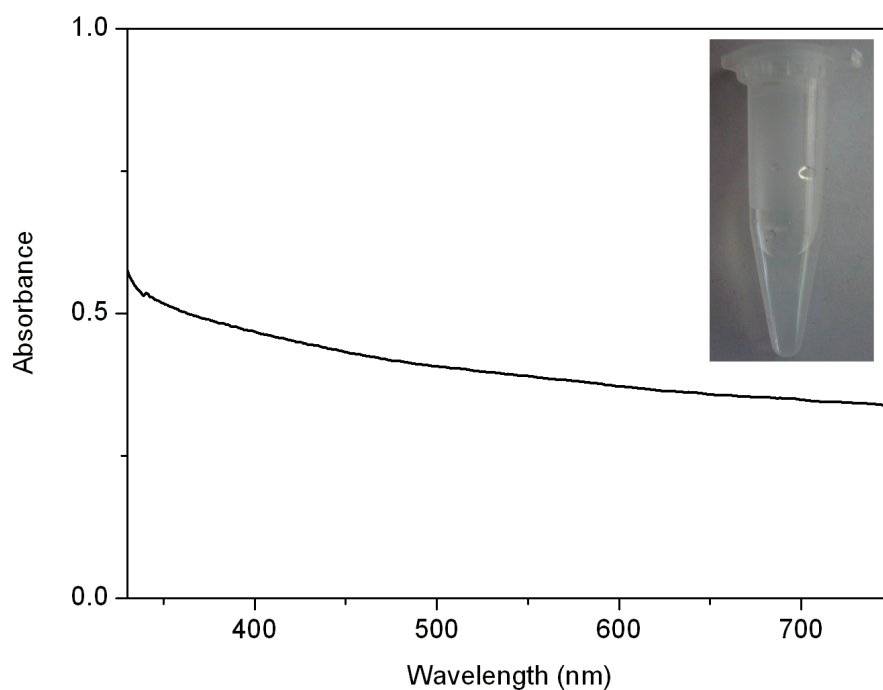


Fig. S4 UV-vis spectra of TMB solution in the presence of 5 μL of H_2O_2 and 100 μL of MP dispersion. Inset: 0.1 mM TMB solution by adding 5 μL of H_2O_2 and 100 μL of MP dispersion.

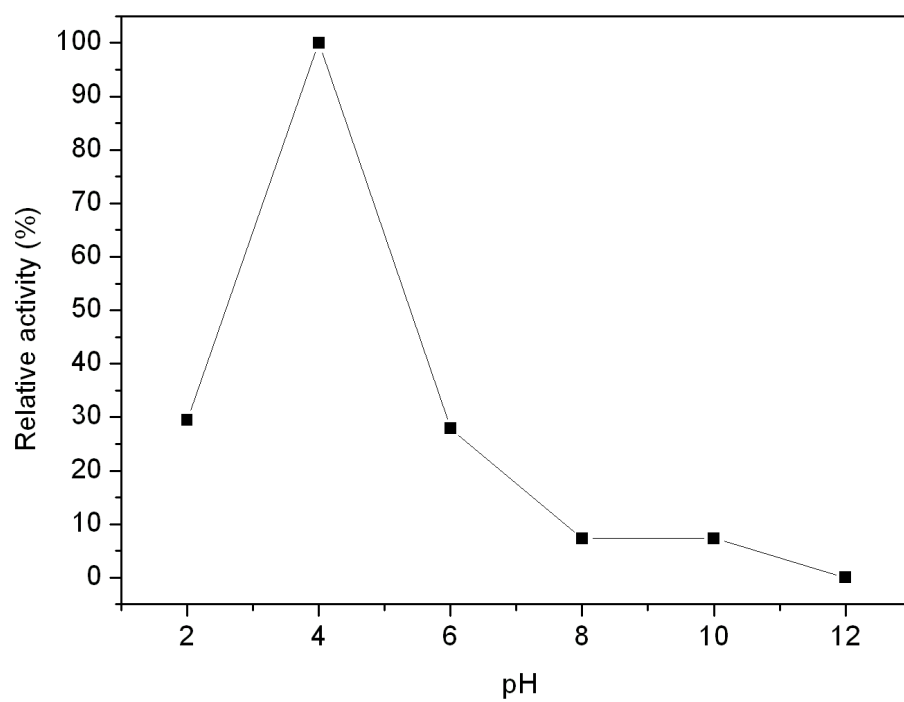


Fig. S5 The effect of pH on the catalytic performance for detection of H₂O₂.

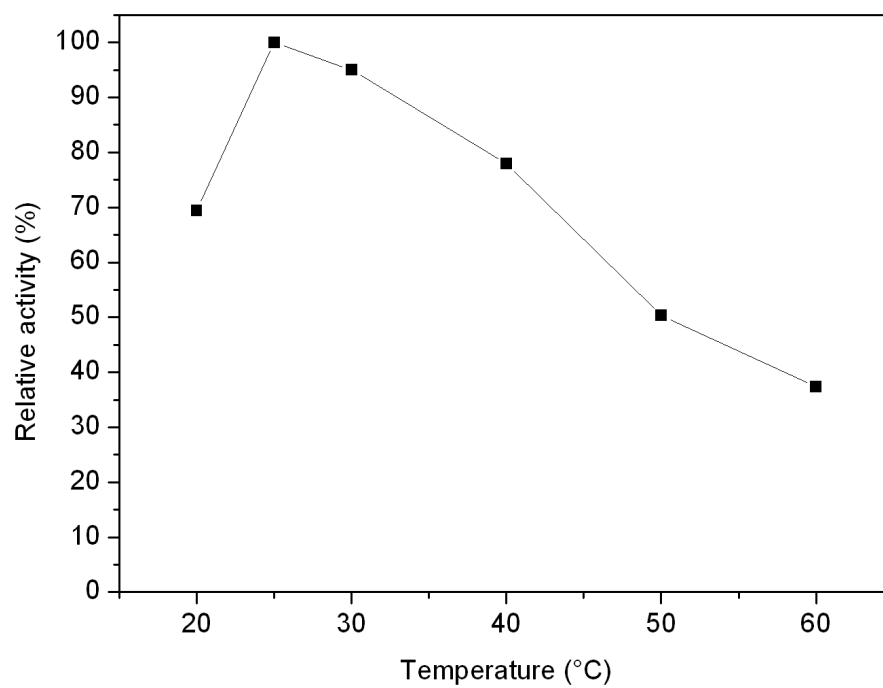


Fig. S6 The effect of temperature on the catalytic performance for detection of H₂O₂.