

Electronic Supplementary Information

Fabrication of an inorganic–organic hybrid based on an iron-substituted polyoxotungstate as a peroxidase for colorimetric immunoassays of H₂O₂ and cancer cells

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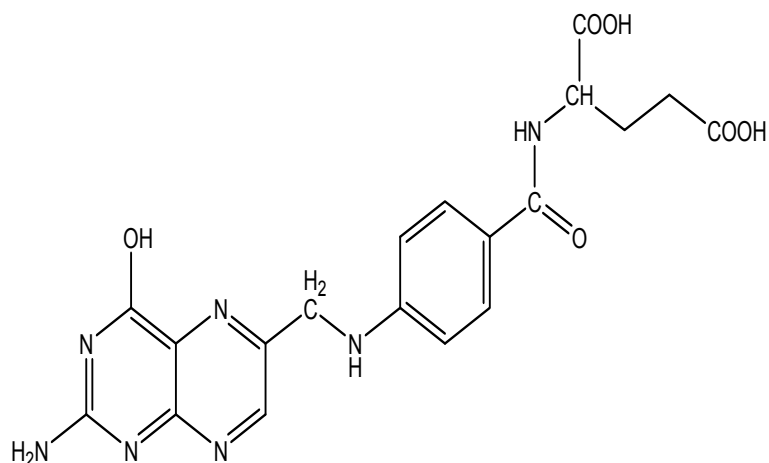


Figure S1. The structure of folate acid.

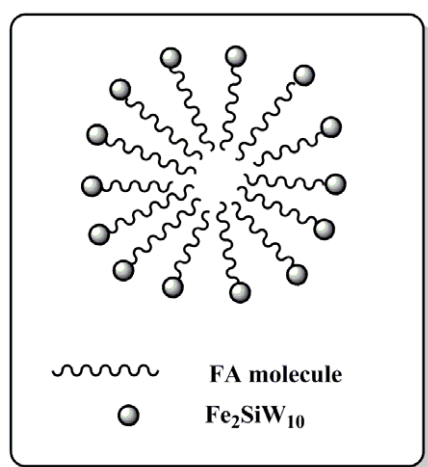


Figure S2. The schematic representation of the formation of folate acid functional
POM (FA)₅Fe₂SiW₁₀.

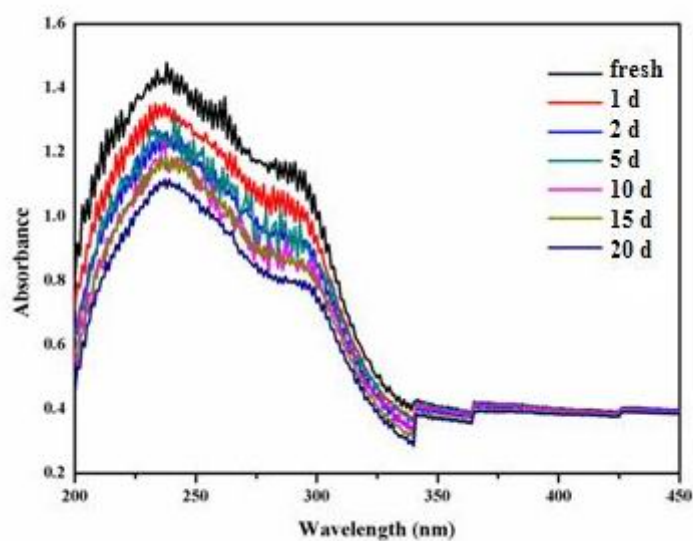


Figure S3. The UV-Vis spectra of the samples being stored for 1, 2, 5, 10, 15 and 20 days.

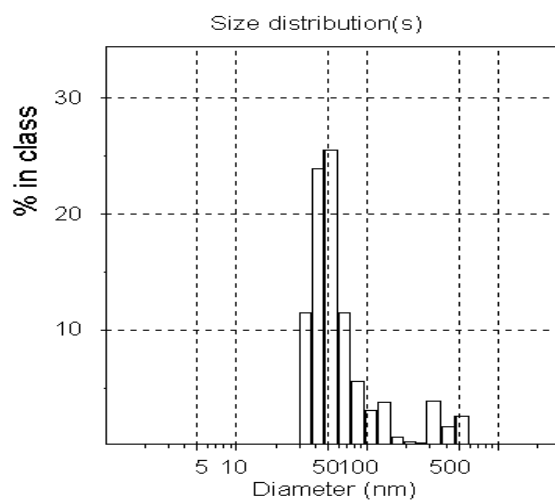


Figure S4. The DLS pattern of (FA)₅Fe₂SiW₁₀.

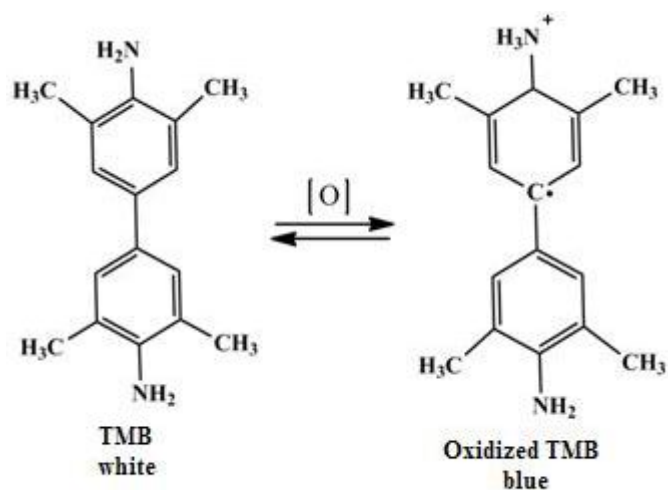


Figure S5. The structures of TMB in oxidative and reduced form.

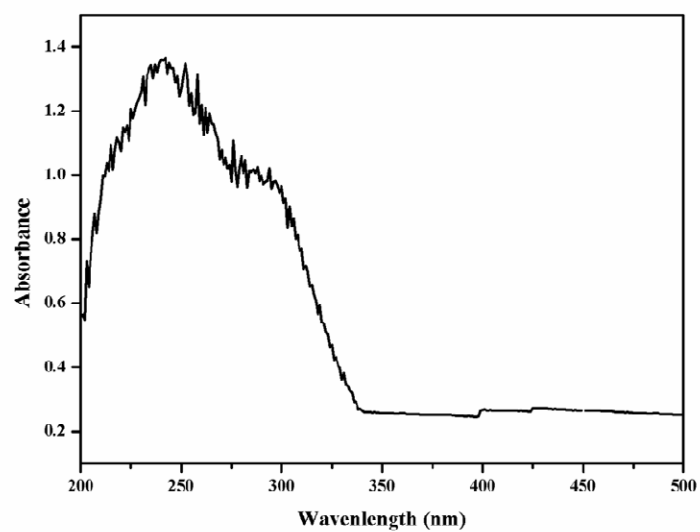


Figure S6. The Uv-Vis spectrum of FA-Fe₂SiW₁₀ in H₂O₂ solution.

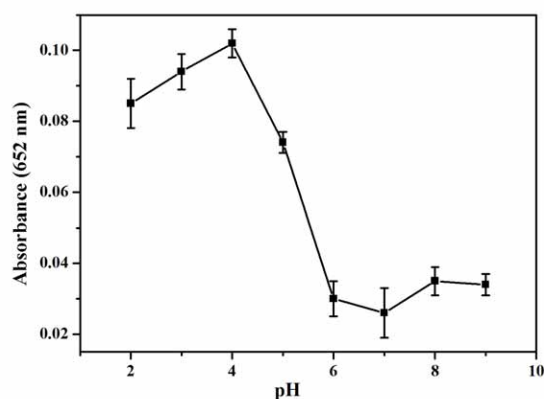


Figure S7. A pH dependent response curve for H_2O_2 detection using $(\text{FA})_5\text{Fe}_2\text{SiW}_{10}$ incubated at 25°C . The error bars represent the standard deviation of three measurements.

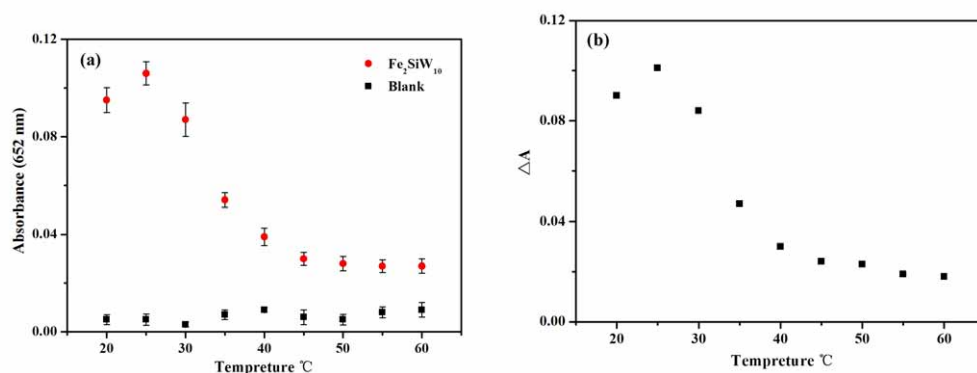


Figure S8. (a) Temperature response curves for H_2O_2 detection in the absence (■) and presence (●) of $(\text{FA})_5\text{Fe}_2\text{SiW}_{10}$. (b) Temperature - ΔA curve for H_2O_2 detection where $\Delta A = A((\text{FA})_5\text{Fe}_2\text{SiW}_{10}, 652 \text{ nm}) - A(\text{blank}, 652 \text{ nm})$. The error bars represent the standard deviation of three measurements.

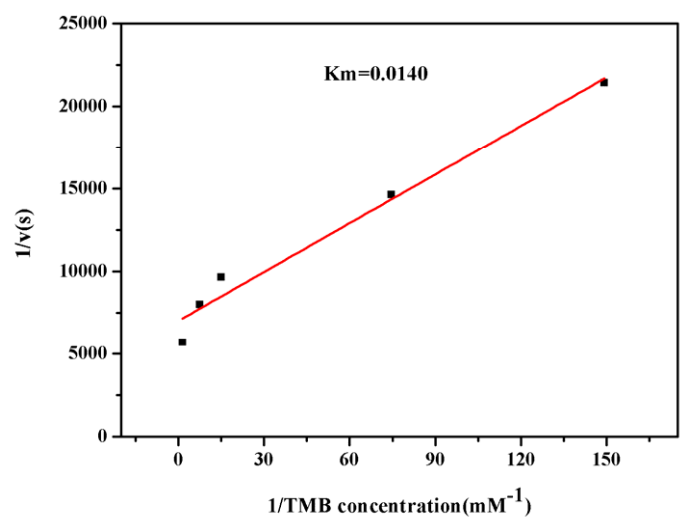


Figure S9. The Michaelis-Menten parameters for $(\text{FA})_5\text{Fe}_2\text{SiW}_{10}$.