

Electronic Supplementary Information for

**Metal-doped carbon nanoparticles with intrinsic peroxidase-like
activity for colorimetric detection of H₂O₂ and glucose**

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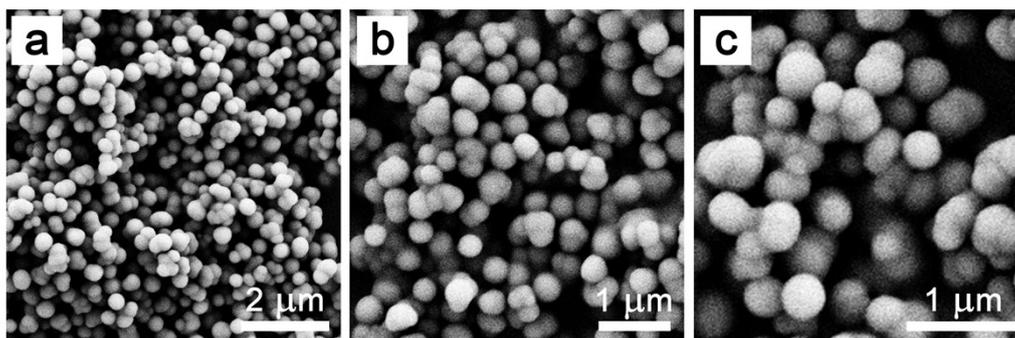


Figure S1. SEM images of PtCNPs.

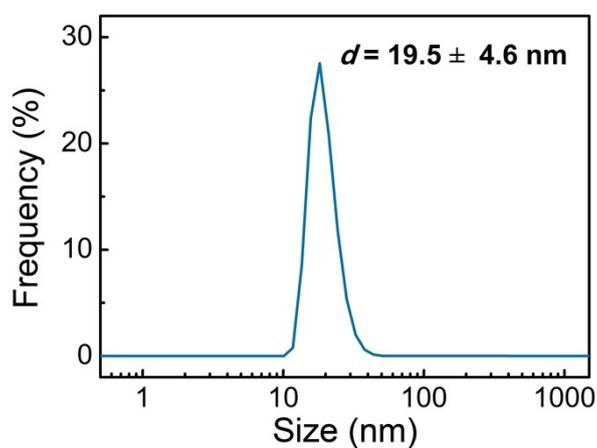


Figure S2. Hydrodynamic size distribution of PtCNPs dispersed in DI water.

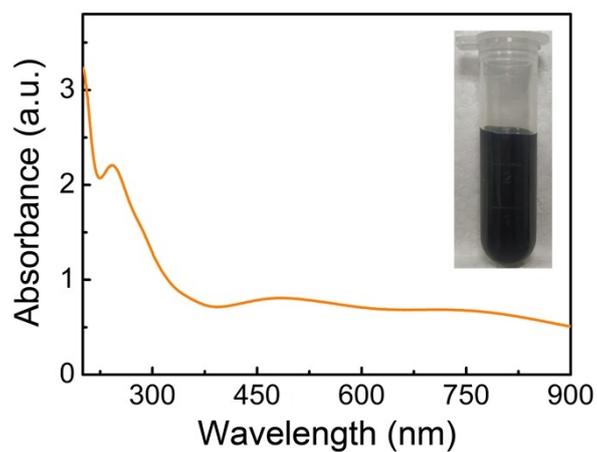


Figure S3. UV-vis spectrum of PtCNP aqueous suspension. Inset: Photograph of PtCNPs dispersed in water taken after storage for 30 days.

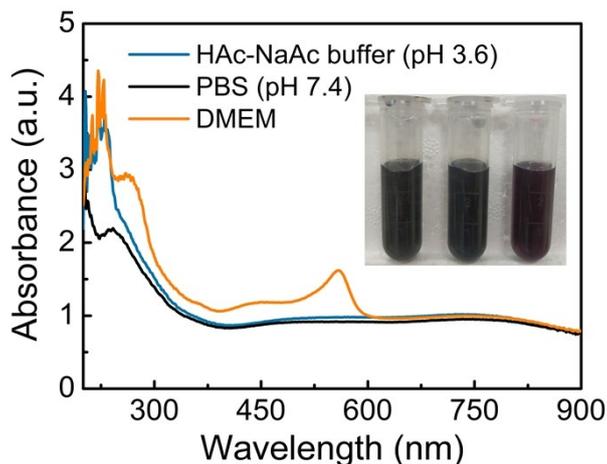


Figure S4. UV-vis spectra and photographs (inset) of PtCNP dispersed in HAc-NaAc buffer (pH 3.6), PBS (pH 7.4), and Dulbecco's modified Eagle's medium (DMEM) (from left to right).

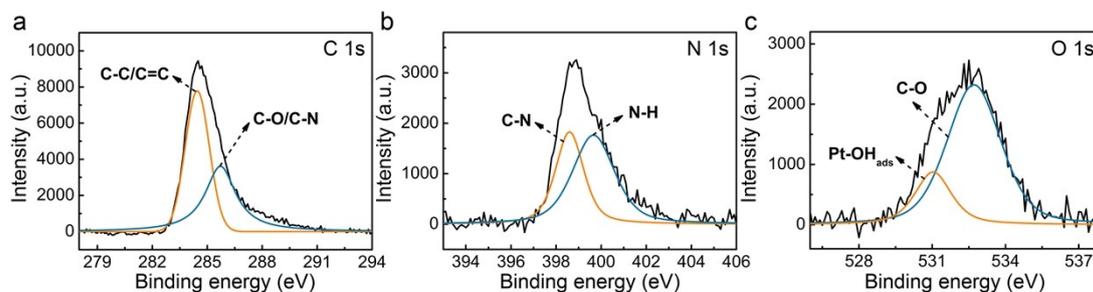


Figure S5. XPS high-resolution (a) C1s, (b) N1s, and (c) O1s curves of PtCNPs.

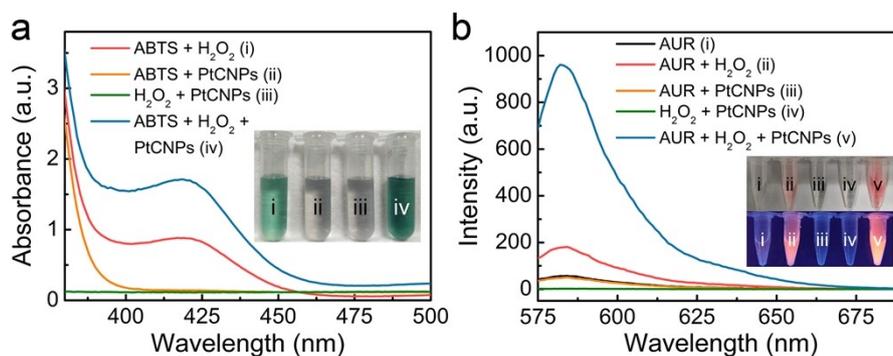


Figure S6. (a) UV-vis spectra of the different samples as indicated. Inset: The corresponding photographs of the samples. (b) Fluorescence spectra (Ex : 568 nm) of the different samples as indicated. Inset: The corresponding photographs of the samples taken under the white light (top) and a UV lamp (Ex : 365 nm, bottom).

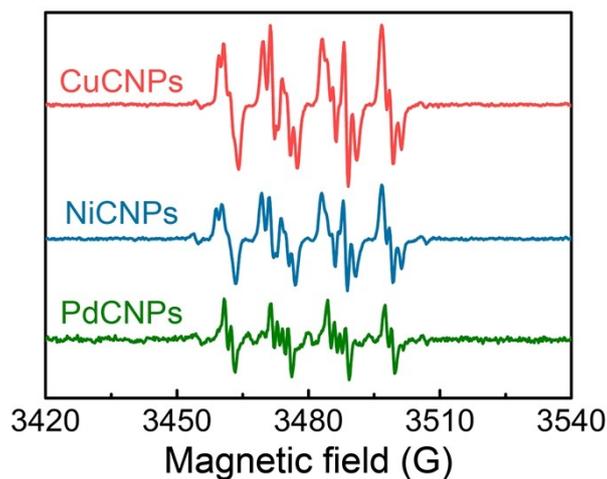


Figure S7. ESR spectra of DMPO + CuCNPs + H₂O₂, DMPO + NiCNPs + H₂O₂, and DMPO + PdCNPs + H₂O₂.

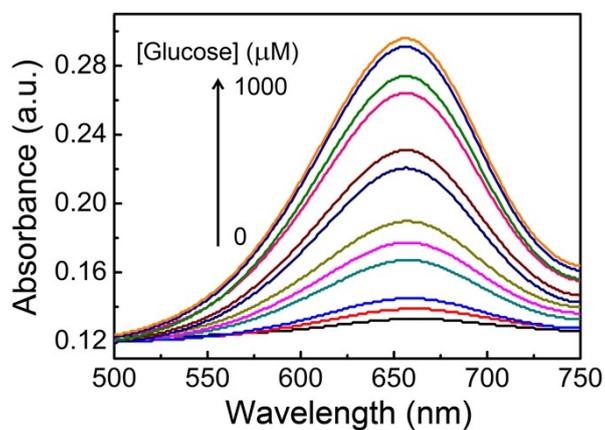


Figure S8. UV-vis spectra of PtCNPs-TMB system after the addition of varied concentrations of glucose (0–1000 μM, from bottom to top).



Figure S9. Test results of the glucose concentration in serum samples measured by the glucose meter.