

Supplementary information

Metal-Enhanced Fluorescence-Based Multilayer Core-Shell Ag-nanocube@SiO₂@PMOs Nanocomposite Sensor for Cu²⁺ Detection

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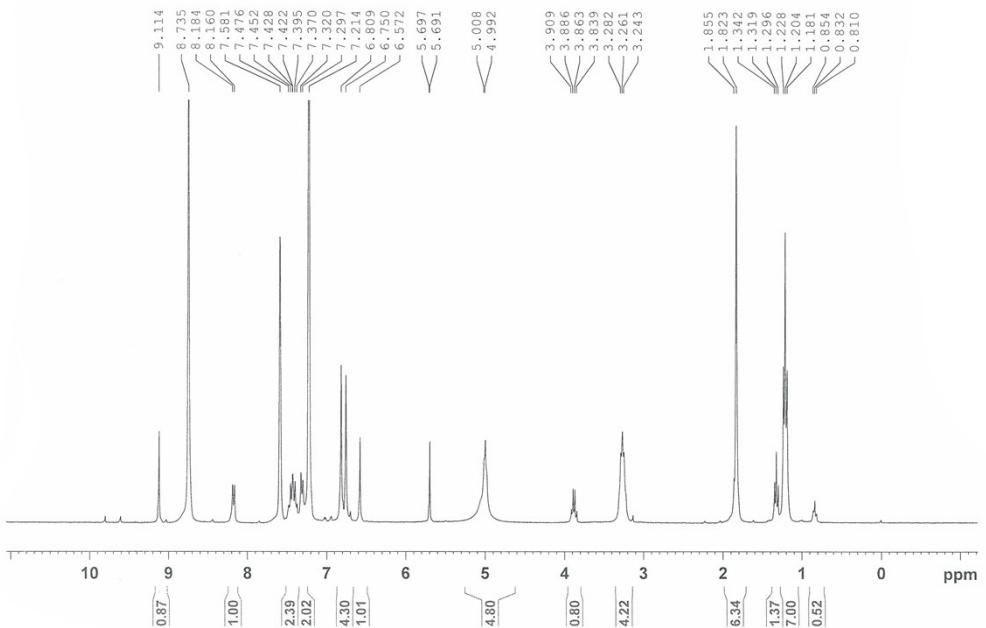


Fig. S1 ^1H NMR spectrum of Compound 2.

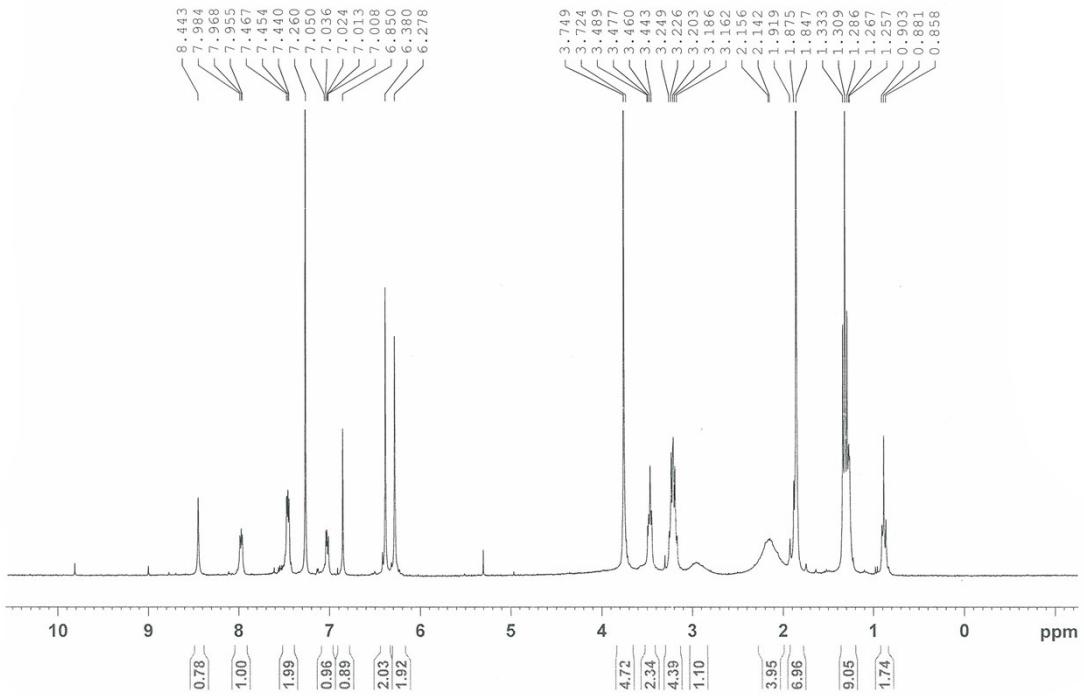


Fig. S2 ^1H NMR spectrum of Compound 3.

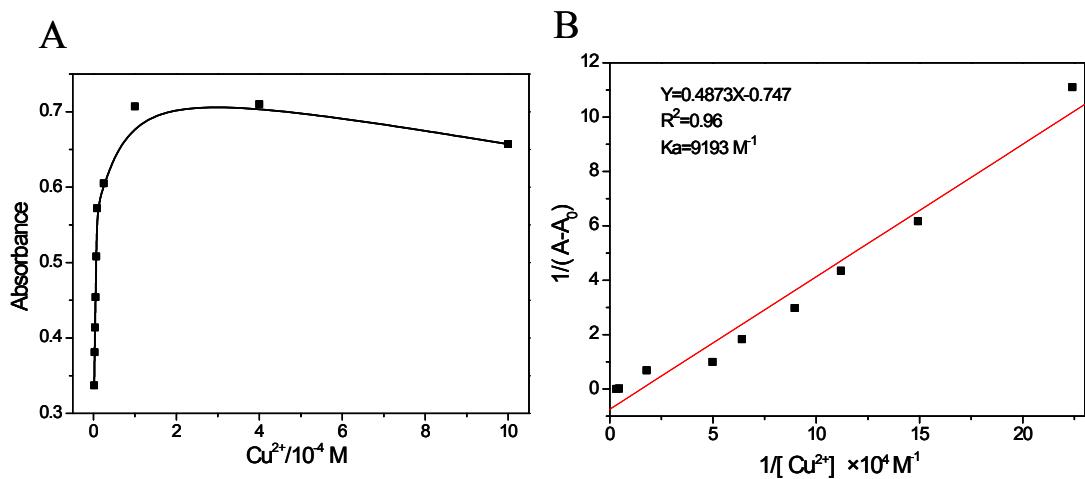


Fig. S3 (A) plot of absorbance intensities of Ag-nanocube@SiO₂@PMOs in C₂H₅OH with different concentrations of Cu²⁺; (B) Benesi–Hildebrand plot of Ag-nanocube@SiO₂@PMOs with Cu²⁺.

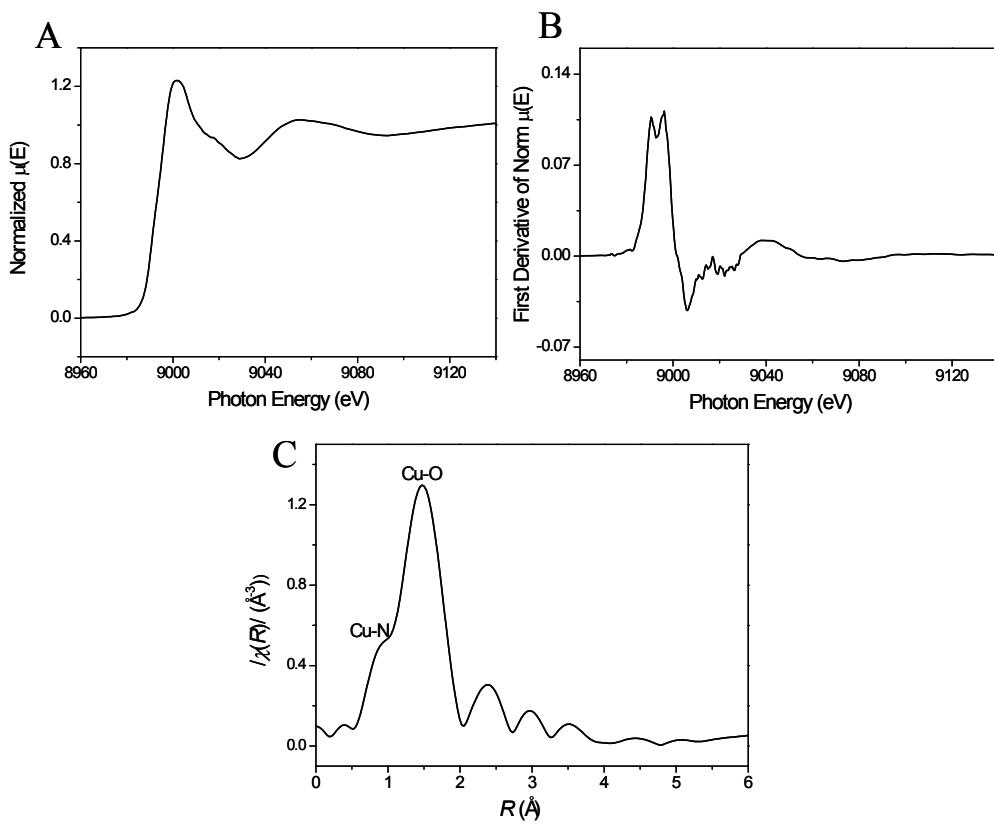


Fig. S4 Normalized X-ray absorption near-edge spectroscopy (XANES) for Cu²⁺-chelated Ag-nanocube@SiO₂@PMOs at the copper K-edge (A), and corresponding first derivative XANES spectra (B). Fourier transformed extended X-ray absorption fine structure spectra (EAXFS) (C).