Supplementary Material (ESI) for Analytical Methods
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Highly sensitive and selective fluorescent assay for quantitative detection of divalent copper ion in environmental water samples

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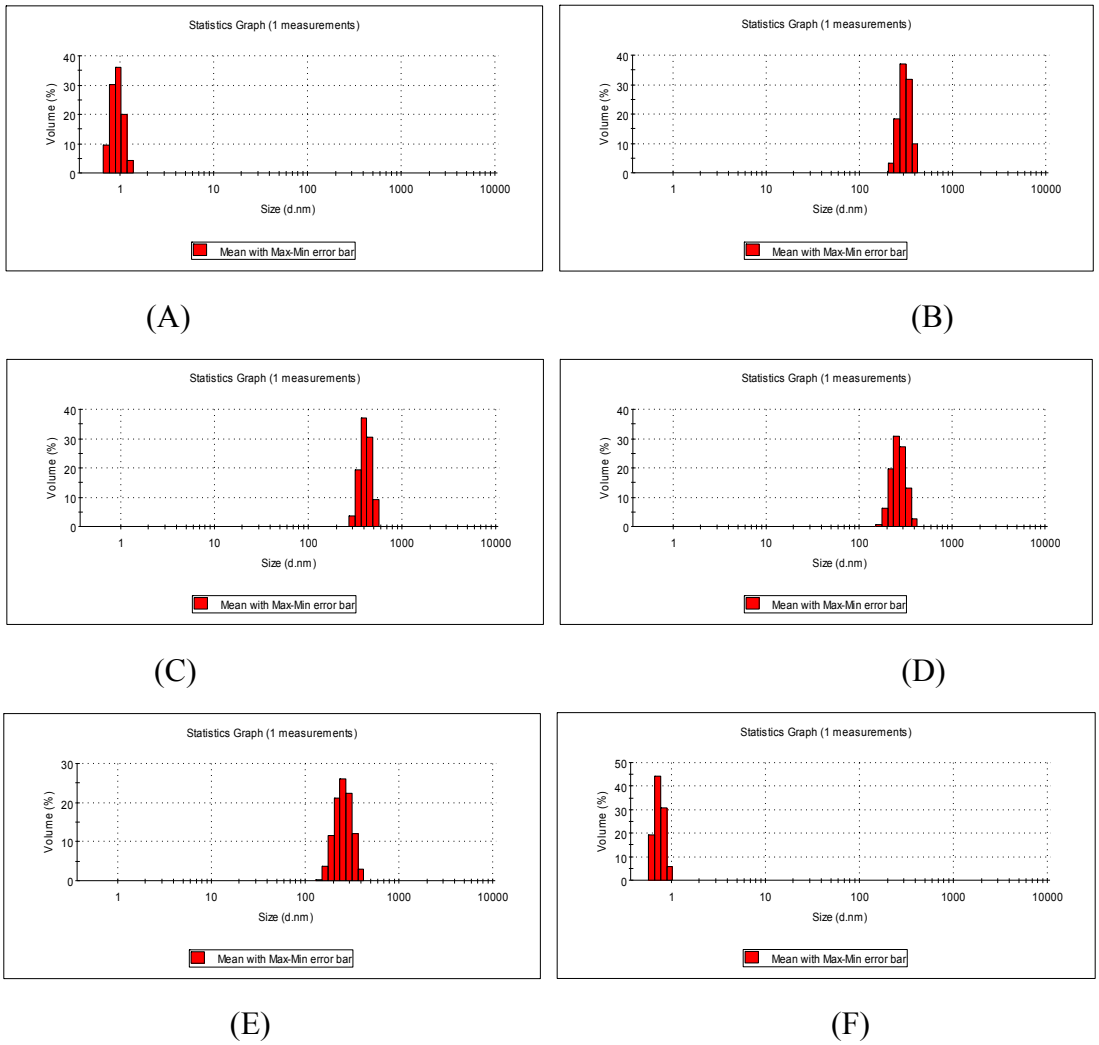

Figure S 1. Hydrodynamic diameter distributions of the the *p*-cresol−hydrogen peroxide-Cu(II) system in different conditions. (A): NH_3–NH_4Cl buffer (pH 11.0±0.2); (B): Borax–Na_2CO_3 buffer (pH 11.0±0.2); (C): $NaHCO_3$–Na_2CO_3 buffer (pH 11.0±0.2); (D): glycine–NaOH buffer (pH 11.0±0.2); (E): Na_3PO_4–Na_2HPO_4 buffer (pH 11.0±0.2); (F): without buffer. Conditions: *p*-cresol concentration: 2.0×10^{-5} mol L^{-1}; Cu^{2+} concentration: 3.0×10^{-5} mol L^{-1}; Hydrogen peroxide concentration: 1.0×10^{-6} mol L^{-1}.

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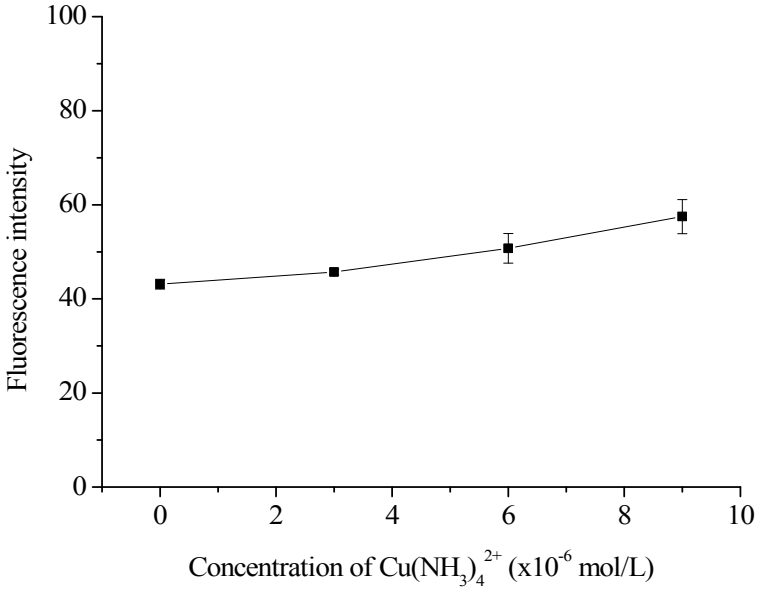

Figure S 2. Effect of $Cu(NH_3)_4^{2+}$ on *p*-cresol oxidation by hydrogen peroxide in 0.04 mol L^{-1} NH_3–NH_4Cl buffer (pH 11.0±0.2). Conditions: *p*-cresol concentration: 2.0×10^{-5} mol L^{-1}; Hydrogen peroxide concentration: 2.0×10^{-6} mol L^{-1}.