

Supporting Information

Colorimetric multiplexed analysis of mercury and silver ions by using a unimolecular DNA probe and unmodified gold nanoparticles

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Supplementary figures:

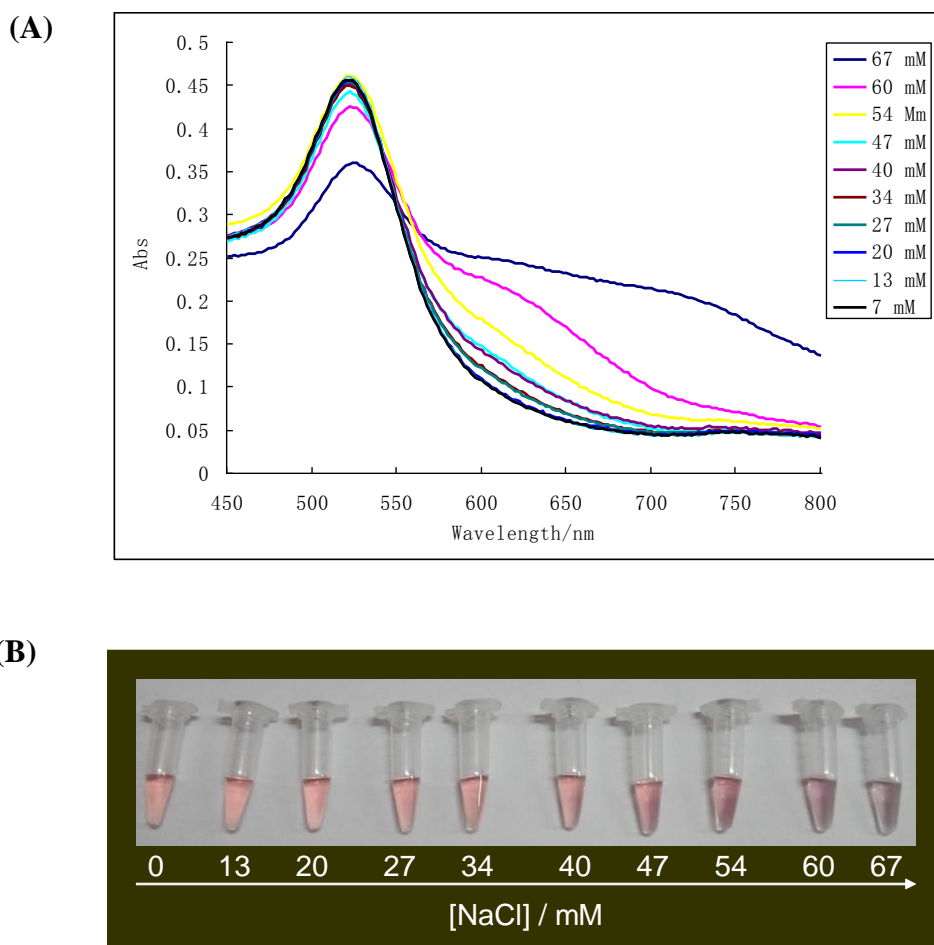


Figure S1 (A) UV-vis absorption spectrum and (B) corresponding photograph of the UMDP absorbed AuNPs in the presence of different concentrations of NaCl. The corresponding concentrations were labeled at the bottom of the photograph.

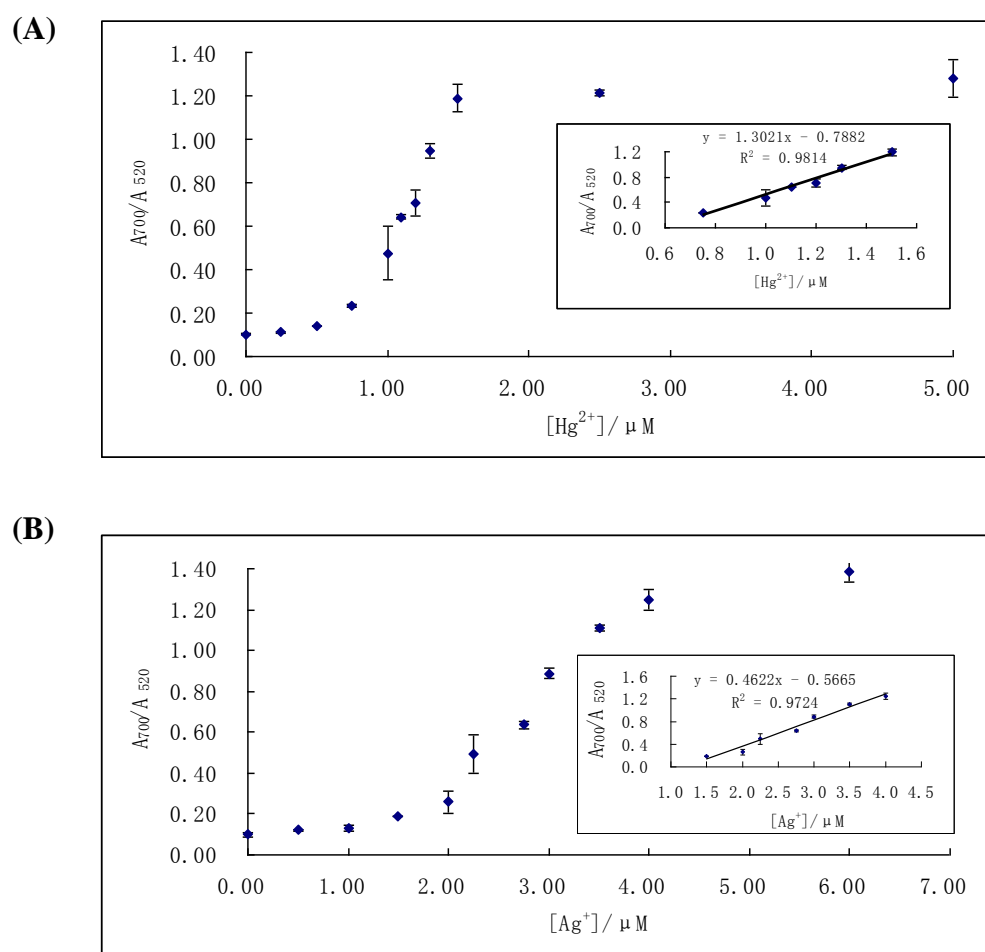


Figure S2 Plot of absorption ratio (A_{700}/A_{520}) of AuNPs solution versus Hg^{2+} (A) and Ag^+ (B) ions concentrations. Inset: derived calibration curve. Error bars were obtained from three experiments.

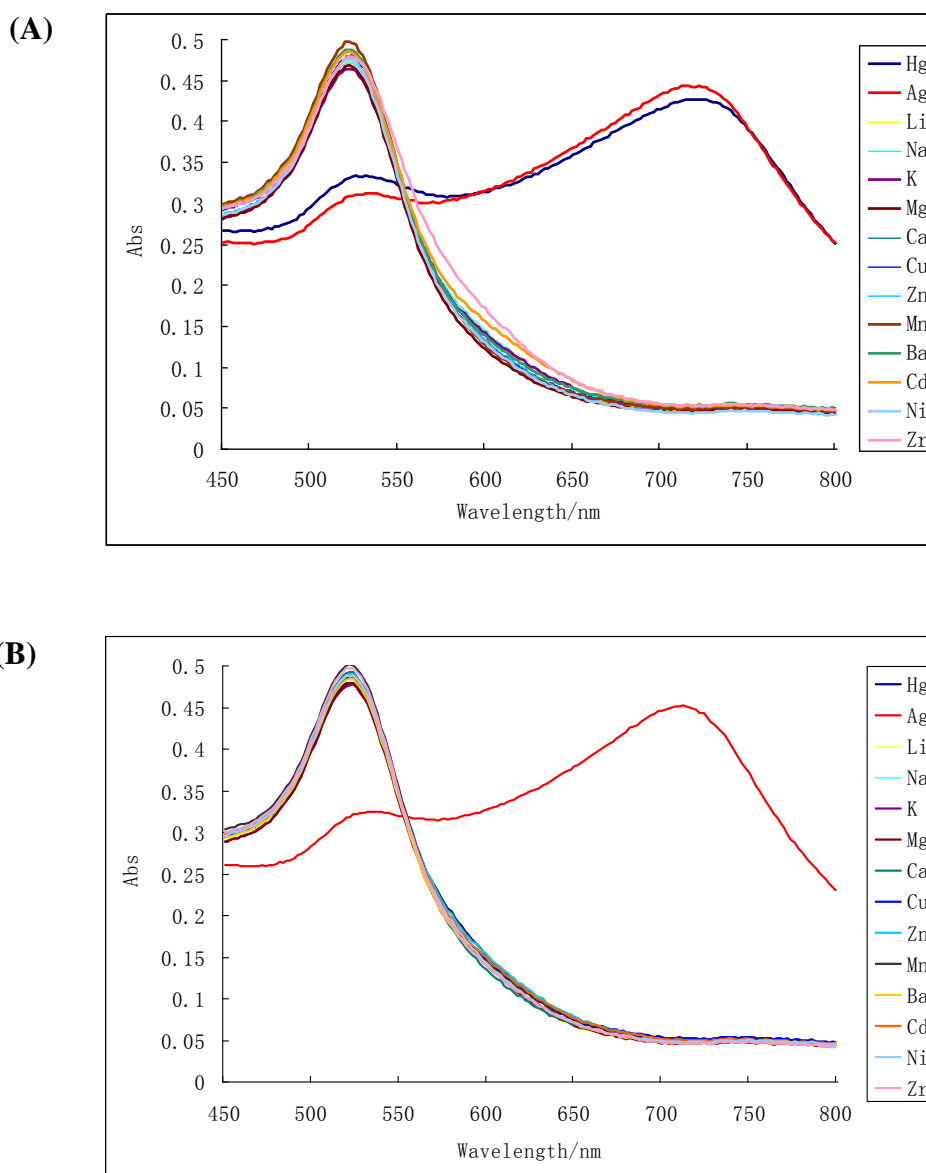


Figure S3 UV - vis absorption spectra of AuNPs solution treated with different ions in the absence of EDTA (A) and in the presence of 100 μM of EDTA (B). The concentration of Hg^{2+} and Ag^+ ions was 5 μM . The concentration of other metal ions was 50 μM .

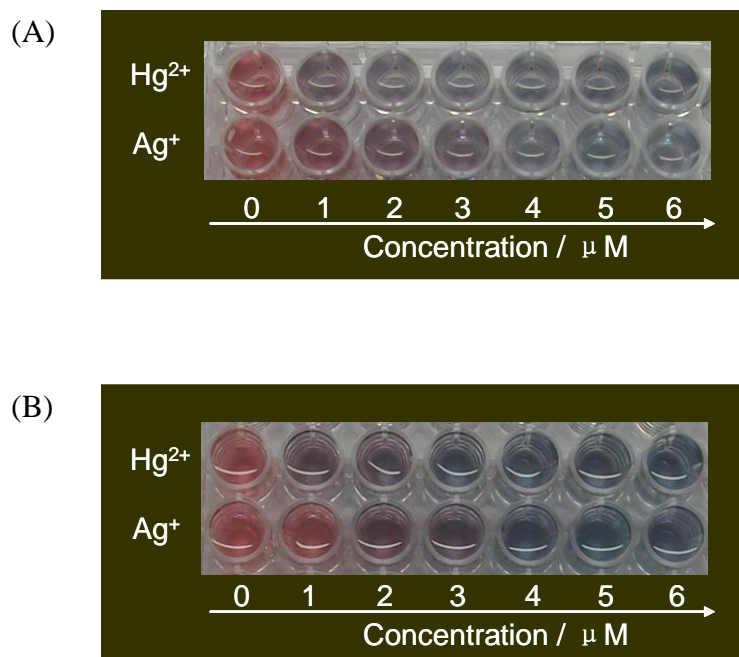


Figure S4 Colorimetric response of the UMDP /AuNPs multiplexed sensing system in the presence of different concentrations of Hg²⁺ and Ag⁺ ions in the tap water (A) and the lake water (B). The corresponding concentrations were labeled at the bottom of the photograph.