

Supporting information

Turn-on fluorescent cyanide sensor based on copper ions-modified CdTe quantum dots

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Figures

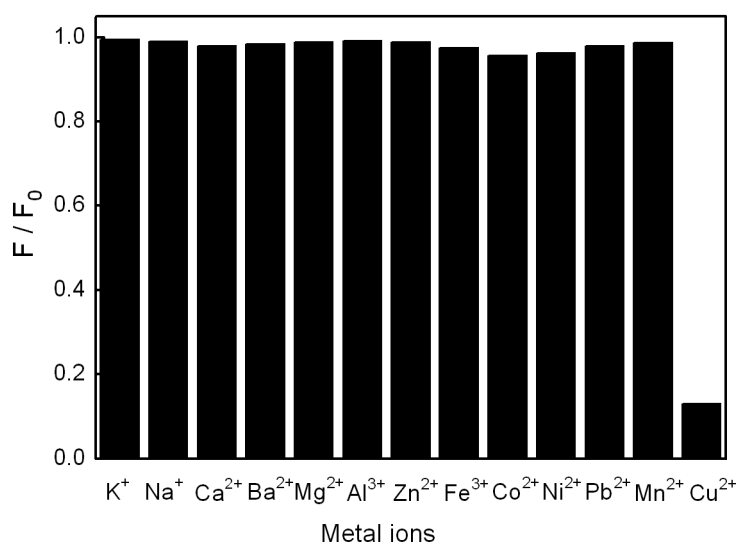


Figure S1. Relative PL intensity (F/F_0) of QDs solution at 615 nm in the presence of 3.0×10^{-7} M metal ions in 0.01 M Tris-HCl buffer solution (pH 7.0).

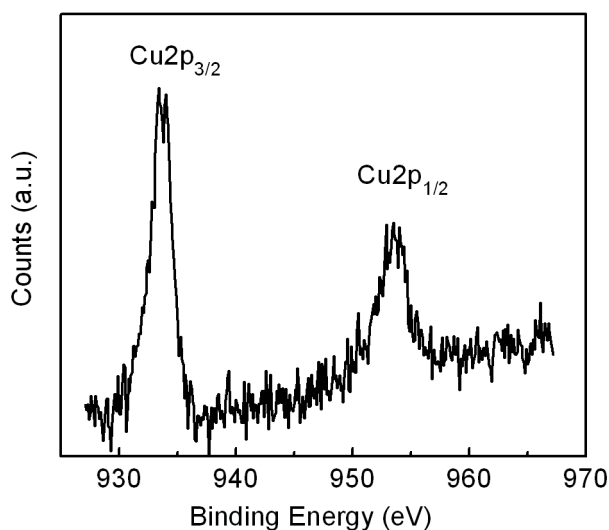


Figure S2. XPS data of Cu2p in the concentrated residual solution after dialyzing the mixture of Cu^{2+} -QDs and KCN against Tris-HCl buffer. As a control, the dialysis-purified mixture solution of QDs and Cu^{2+} without adding cyanide was also subjected to the similar experiment for XPS, which suggested no copper peaks in the result. This further suggested that the detected copper in the sample should originate from desorption of CuCN from QDs.

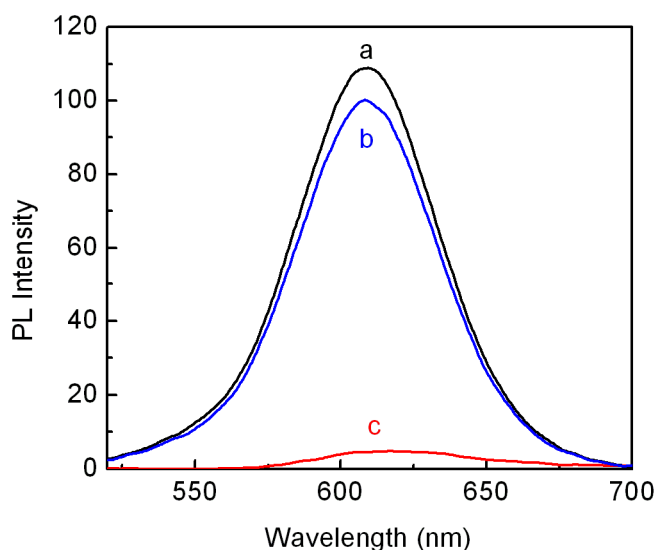


Figure S3. Fluorescence emission spectra of 22 nM QDs (curve a) only, addition of 3.0×10^{-7} M Cu^{2+} into QDs solution containing 1.2×10^{-5} M KCN (curve b), and addition of 3.0×10^{-7} M Cu^{2+} into QDs (curve c) without KCN.