Supporting information

A highly selective and sensitive fluorescence assay for determination of copper (II) and cobalt (II) ions in environmental water and toner samples

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Figure S1. Fluorescence intensity of AUR oxidation product in the Tris-acetate buffer at (A) different pH values, (B) buffer systems, and (C) different concentrations of Tris-acetate buffer in the presence of (□) Cu^{2+} and (◼) Co^{2+} ions (10 µM) (n = 3).
Figure S2. Hydrodynamic diameter distributions of the (A) AUR–hydrogen peroxide–Cu(II) and (B) AUR–hydrogen peroxide–Co(II) systems in different buffer systems: (a) Tris-acetate, (b) glycine–NaOH, (c) Na₃PO₄–Na₂HPO₄, and (d) without buffer. Conditions: AUR concentration: 25 µM, hydrogen peroxide concentration: 400 µM, Cu(II) concentration: 10 µM, Co(II) concentration: 10 µM.
Figure S3. Effects of concentrations of (A) H$_2$O$_2$ and (B) AUR on fluorescence intensity of AUR oxidation product in the presence of □ Cu$^{2+}$ (10 µM) and ◼ Co$^{2+}$ ions (1.0 µM) (n = 3).
Figure S4. Linear responses of the fluorescence intensity plotted with respect to the concentration of Cu$^{2+}$ and Co$^{2+}$ ions spiked in the (A) lake and (B) pond water samples (n = 3).