Ultrasensitive detection of mercury (II) in aqueous solution via spontaneous precipitation of CsPbBr$_3$ crystallites

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Fig. S1 The UV-vis spectra of the prepared CsPbBr$_3$ crystals with and without presence of mercury ion on the left, and the photoluminescence of CsPbBr$_3$ crystals with and without presence of mercury ion on the right.
Fig. S2 (A) The photoluminescent spectra of CsPbBr$_3$ precipitated from DI water (black curve), solution with interfering ions (red curve) and mixed solution with interfering ions and 0.1 μM Hg$^{2+}$ (blue curve); (B) The fluorescent intensity changes ($I/I_0$) of CsPbBr$_3$ precipitated from DI water (blank), solution with interfering ions and mixed solution with interfering ions and 0.1 μM Hg$^{2+}$. The interfering ions include Ni$^{2+}$, Mg$^{2+}$, Ca$^{2+}$, Co$^{2+}$, Cu$^{2+}$, Pb$^{2+}$, Cd$^{2+}$, Mn$^{2+}$, Fe$^{2+}$, Al$^{3+}$ and K$^+$ with concentration of 1 μM for each. $I_0$ is the peak intensity for blank sample. The emission spectra were measured four times for each condition.