

Supplementary Material

Temperature-controlled ionic liquid dispersive liquid-liquid microextraction combined with fluorescence detection of ultra-trace Hg²⁺ in water

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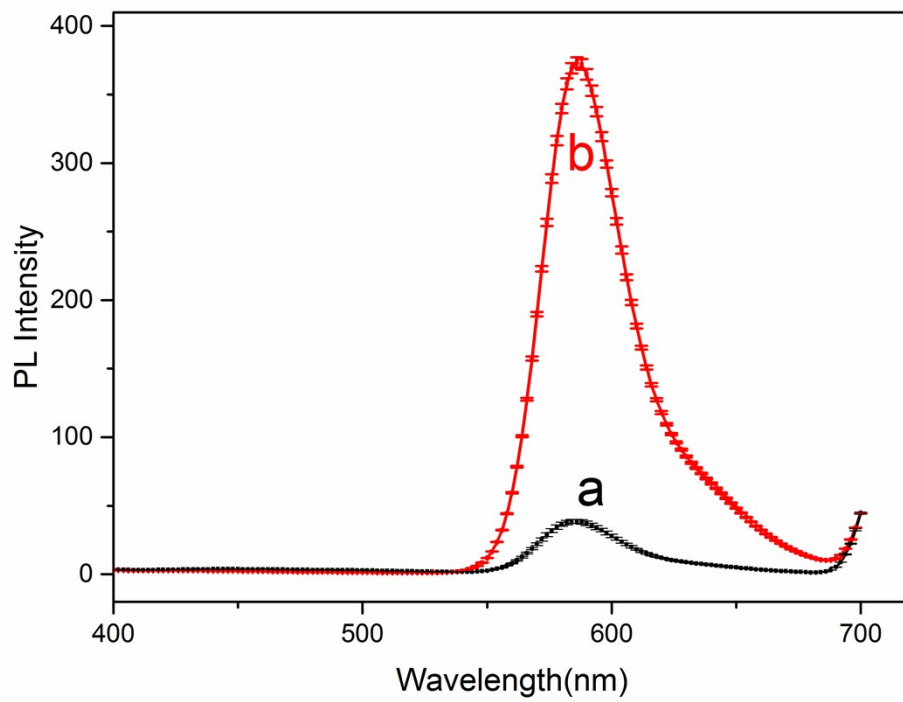


Fig.S1. The comparison of PL spectrum of mercury solution with 1% IL between the same day (a) and 16 days later (b).

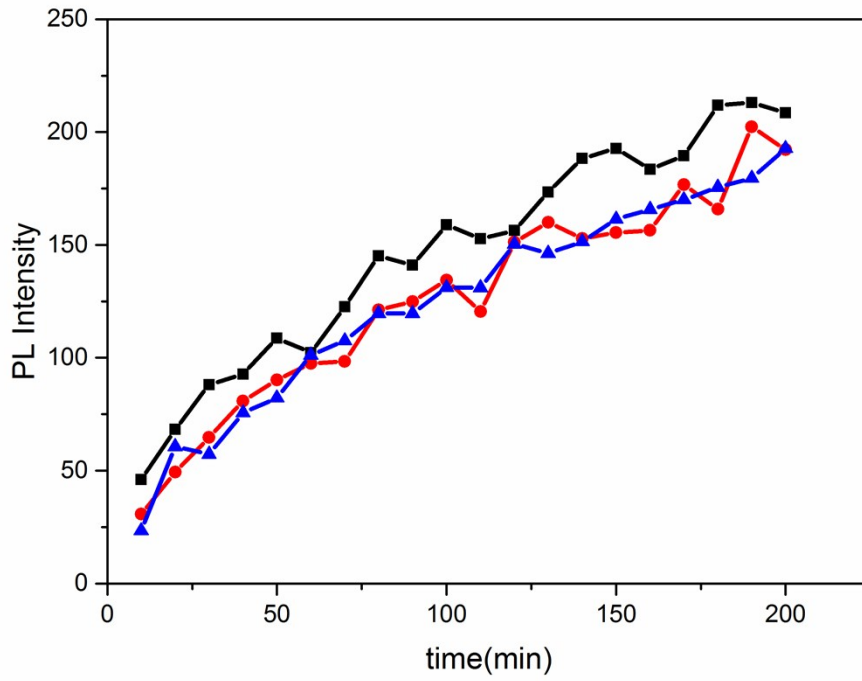


Fig.S2. The PL intensity of 10 μ M PTR in 20 μ M mercury solutions with 15% IL, 30% water fraction at 55 $^{\circ}$ C water bath.

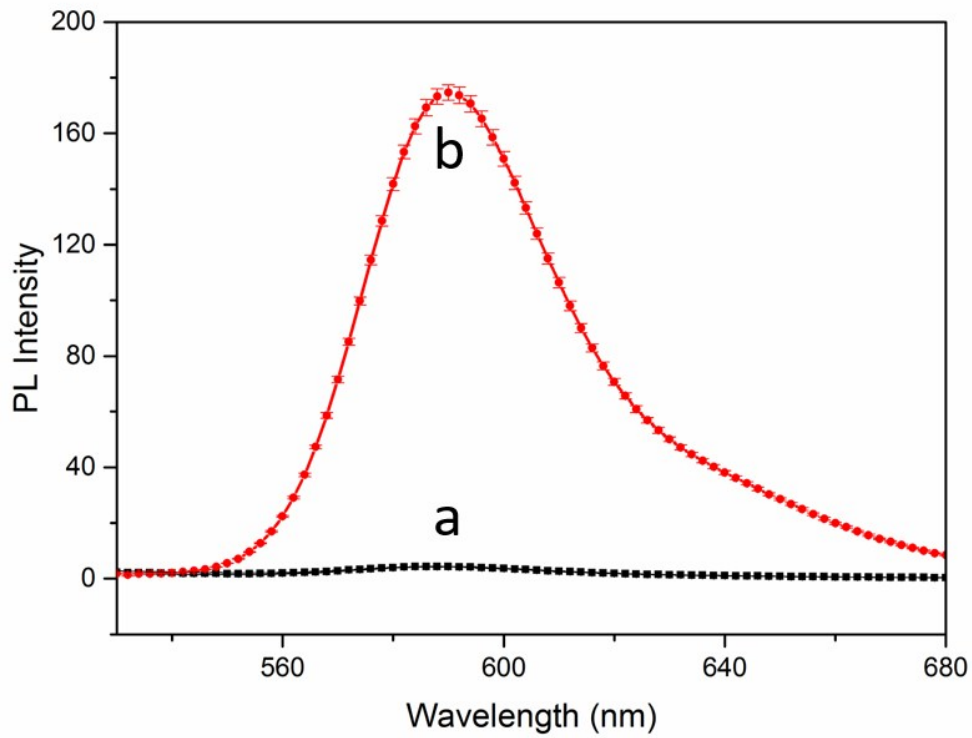


Fig.S3. The PL intensity of 10 μ M PTR in 0 μ M (a) and 10 μ M (b) mercury solutions with 15 IL%, 30% water fraction after 10-hour water bath at 55 $^{\circ}$ C.

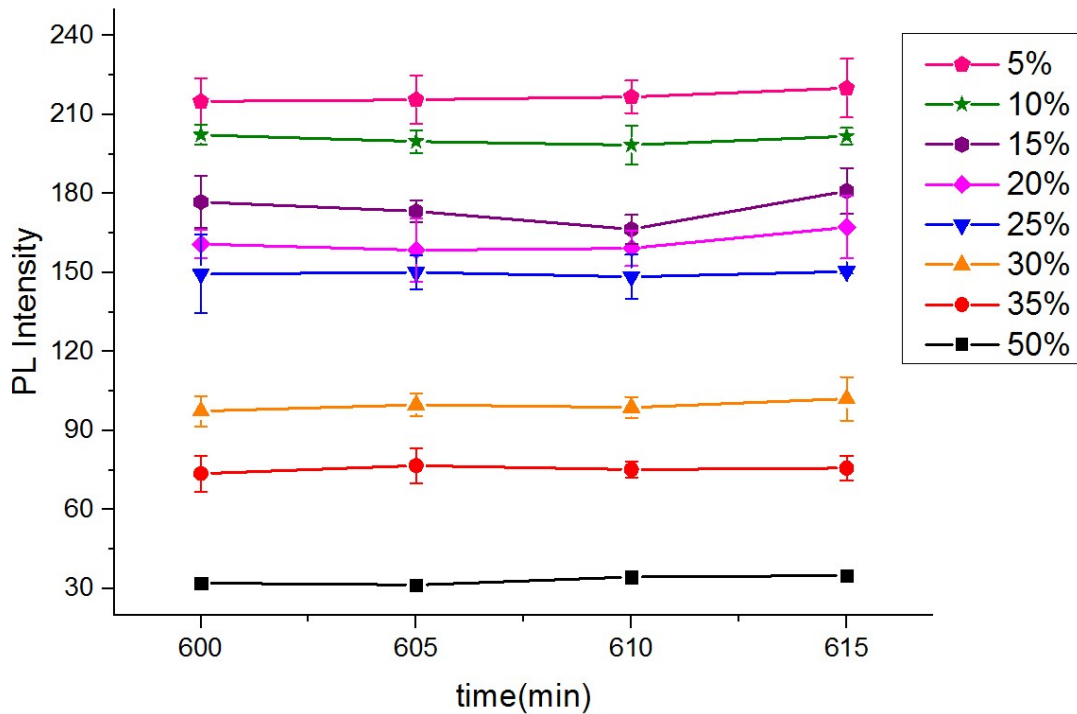


Fig.S4. The PL intensity difference between 10 μM and 0 μM mercury solutions with 10 μM PTR, 30% water fraction, different IL% at 55 $^{\circ}\text{C}$ water bath.

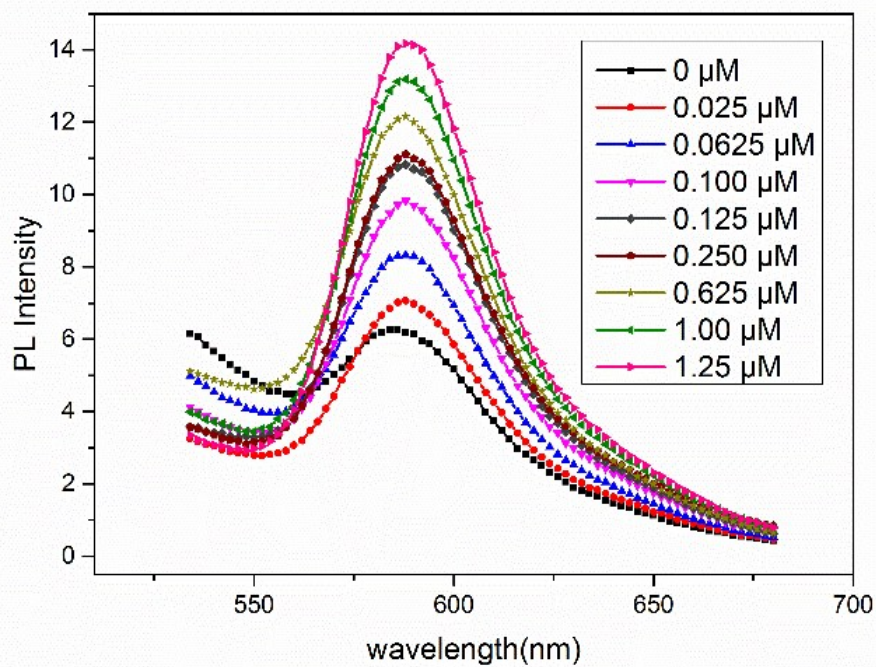


Fig.S5. Emission spectra of PTR in the presence of increasing concentrations of Hg^{2+} (0-1.25 μM) in 25% IL, ACN: H_2O (4:1, v/v), ex: 355nm.

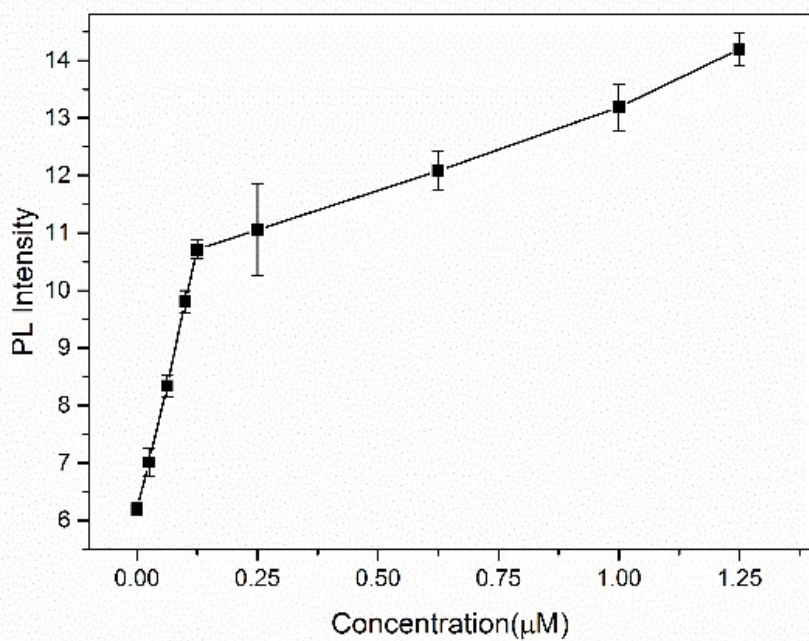


Fig.S6. Linear correlation between the PL intensity at 589.2nm and Hg^{2+} concentration. The linear equation was $y = 36.395x + 6.1396$ ($R^2 = 0.9991$) and $y = 3.0282x + 10.278$ ($R^2 = 0.9949$), respectively.