

Supporting Information

Highly selective fluorescent probe for detecting mercury ion in water

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1. HRMS of probe TPH and reaction products of probe TPH and Hg²⁺

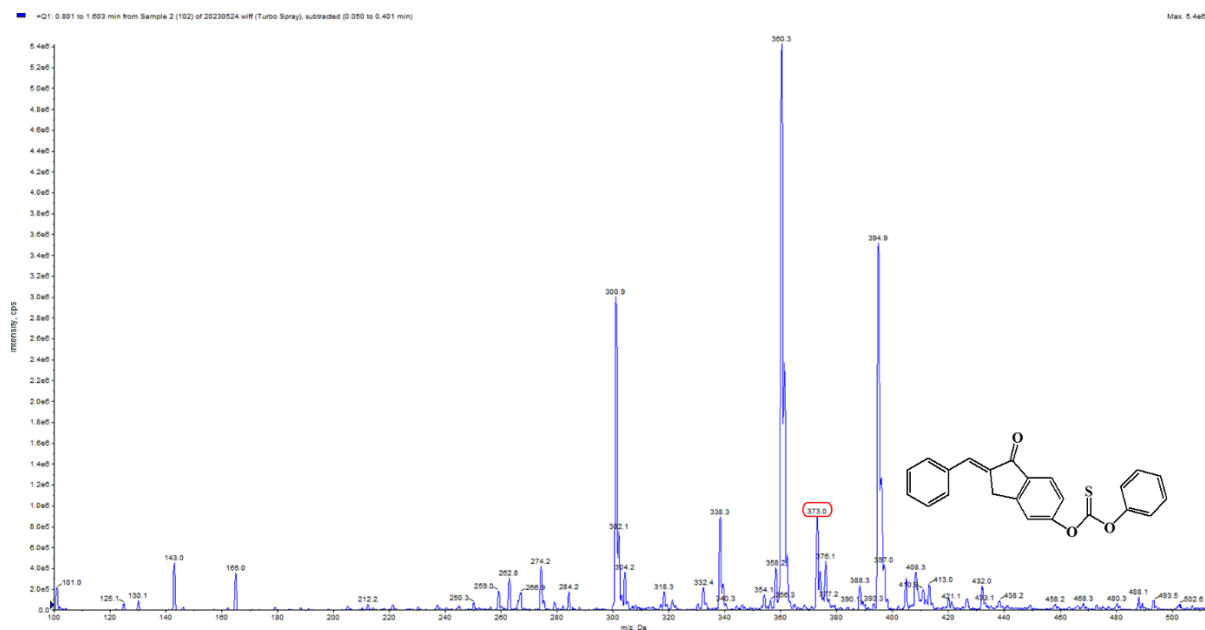


Figure S1. The HRMS data of probe TPH

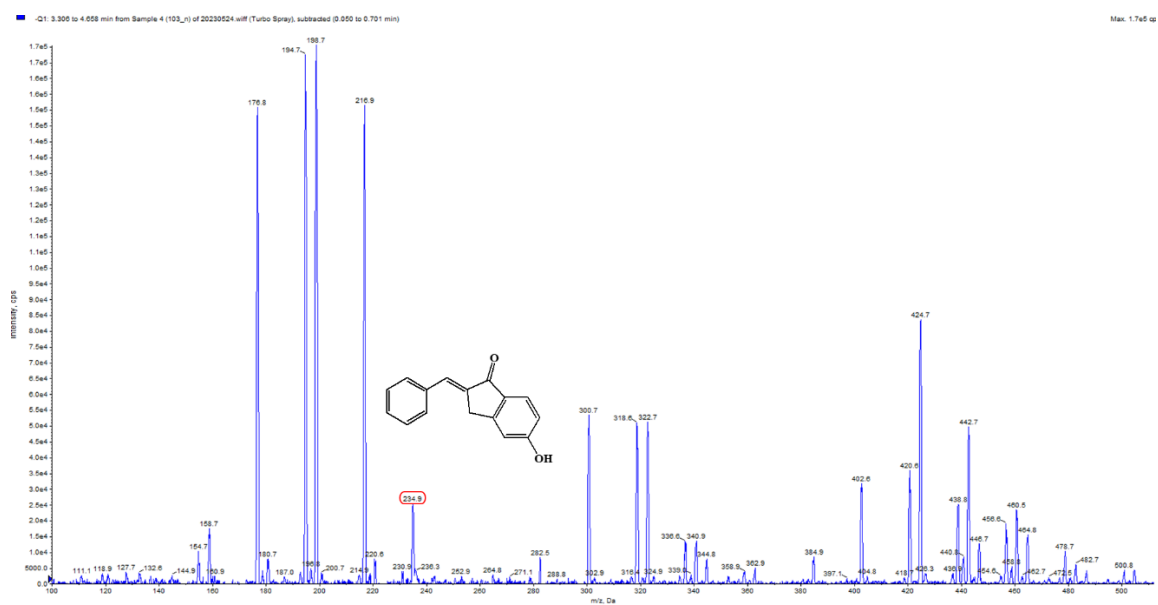


Figure S2. The HRMS data of the reaction products of probe TPH and Hg²⁺.

2. ^1H NMR and ^{13}C NMR data of probe TPH

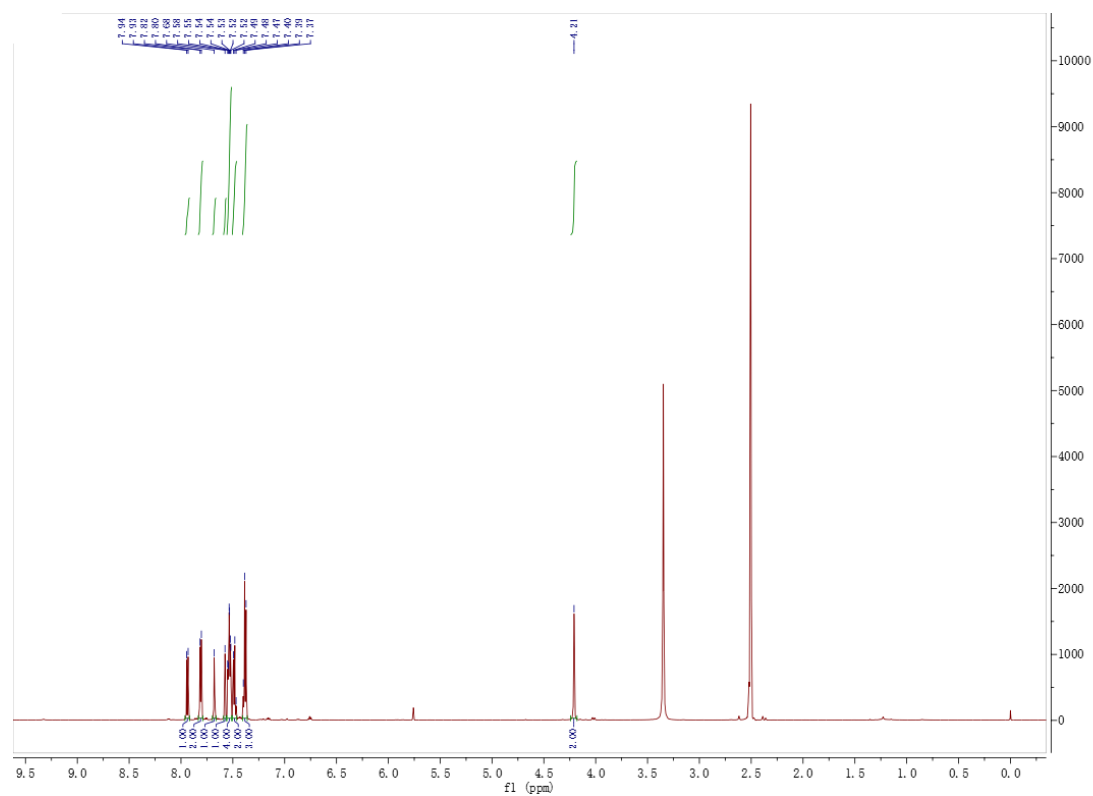


Figure S3. ^1H -NMR data of probe TPH.

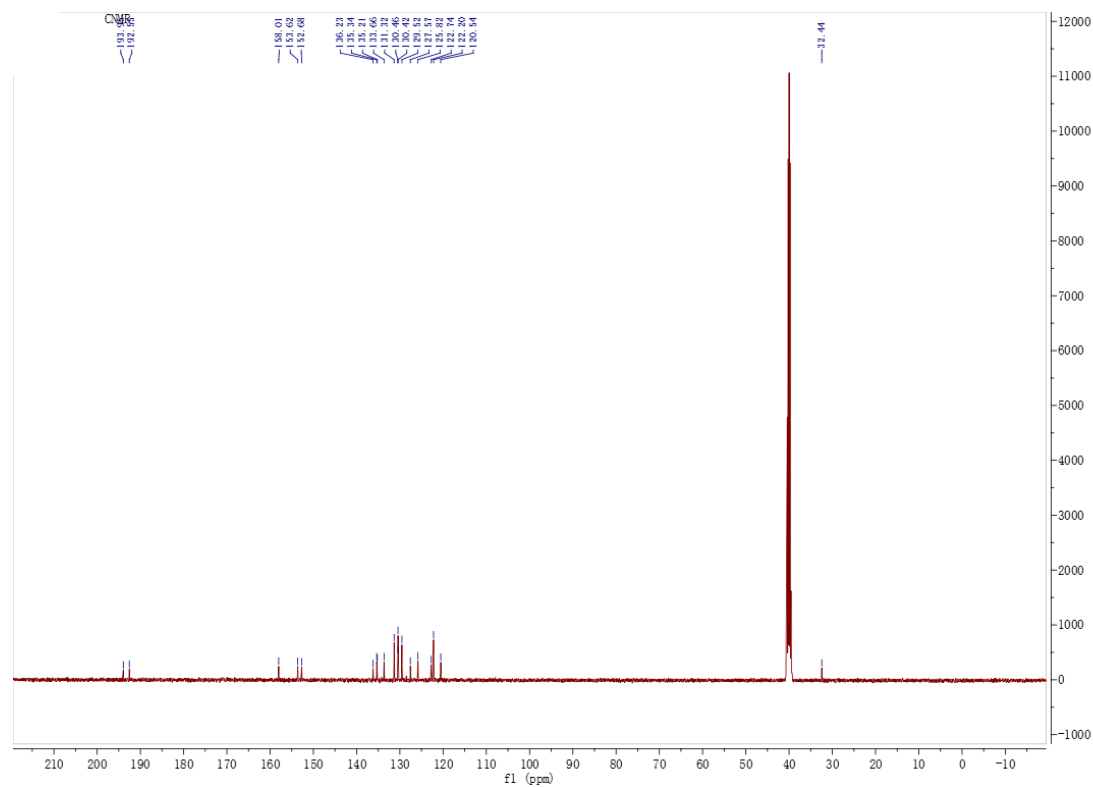


Figure S4. ^{13}C -NMR data of probe TPH.

3. Effects of pH on the recognition of probe TPH for Hg^{2+}

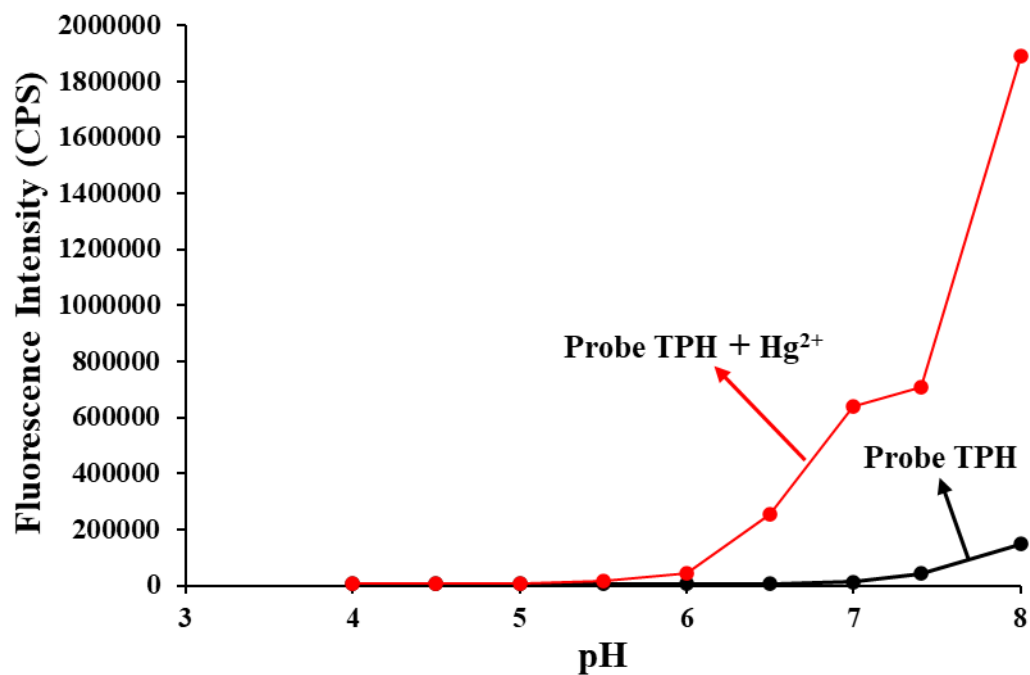


Figure S5. The effects of pH on probe TPH (5 μM) for detecting Hg^{2+} (20 μM).

4. The emission of the probe TPH at different excitation wavelengths

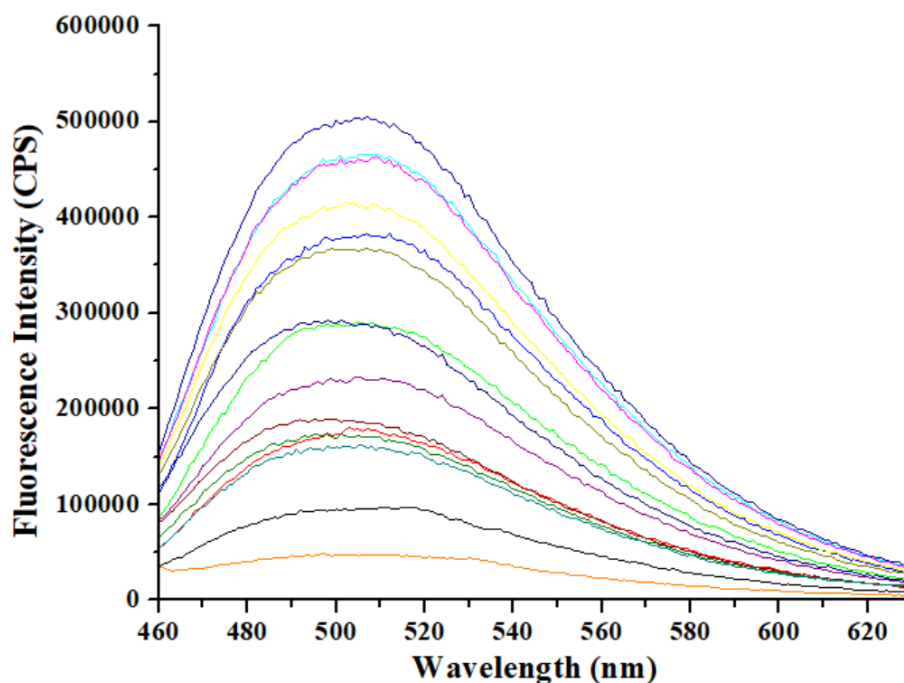


Figure S6. The emission of the probe TPH at different excitation wavelengths (320-450 nm)

5. The stability of the probe TPH in water

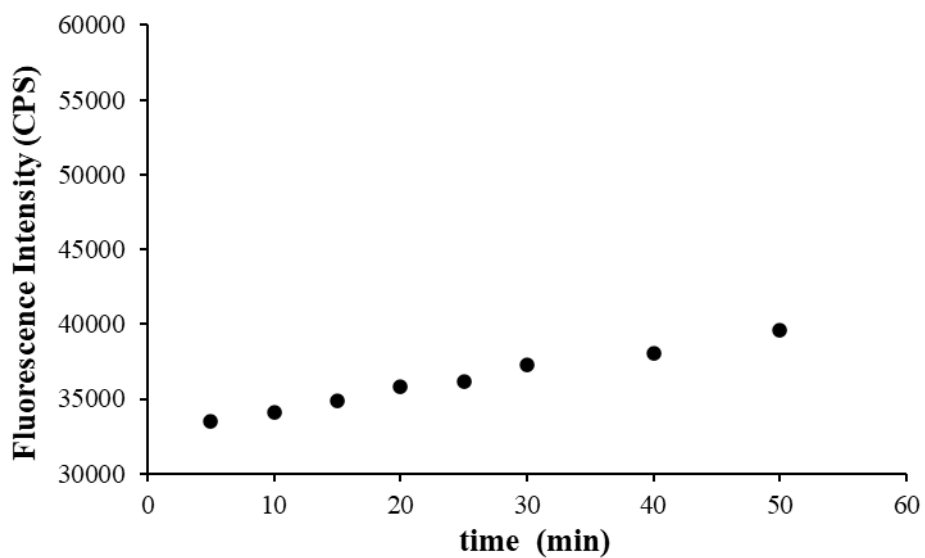


Figure S7. The stability of the probe TPH in water

6. The forms of salts were used of the metal ions.

The forms of salts were used in this paper: MgSO_4 , CoSO_4 , NiSO_4 , MnSO_4 , ZnCl_2 , CuSO_4 , NaCl , AgNO_3 , CaCl_2 , $\text{Pb}(\text{NO}_3)_2$, CdSO_4 , AlCl_3 , FeSO_4 , $\text{Fe}_2(\text{SO}_4)_3$, KCl , SnCl_2 , CrSO_4 .

