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for

**Four Xanthene-fluorene based probes for the detection of Hg²⁺ ions and its
application in strip test and biological cells**

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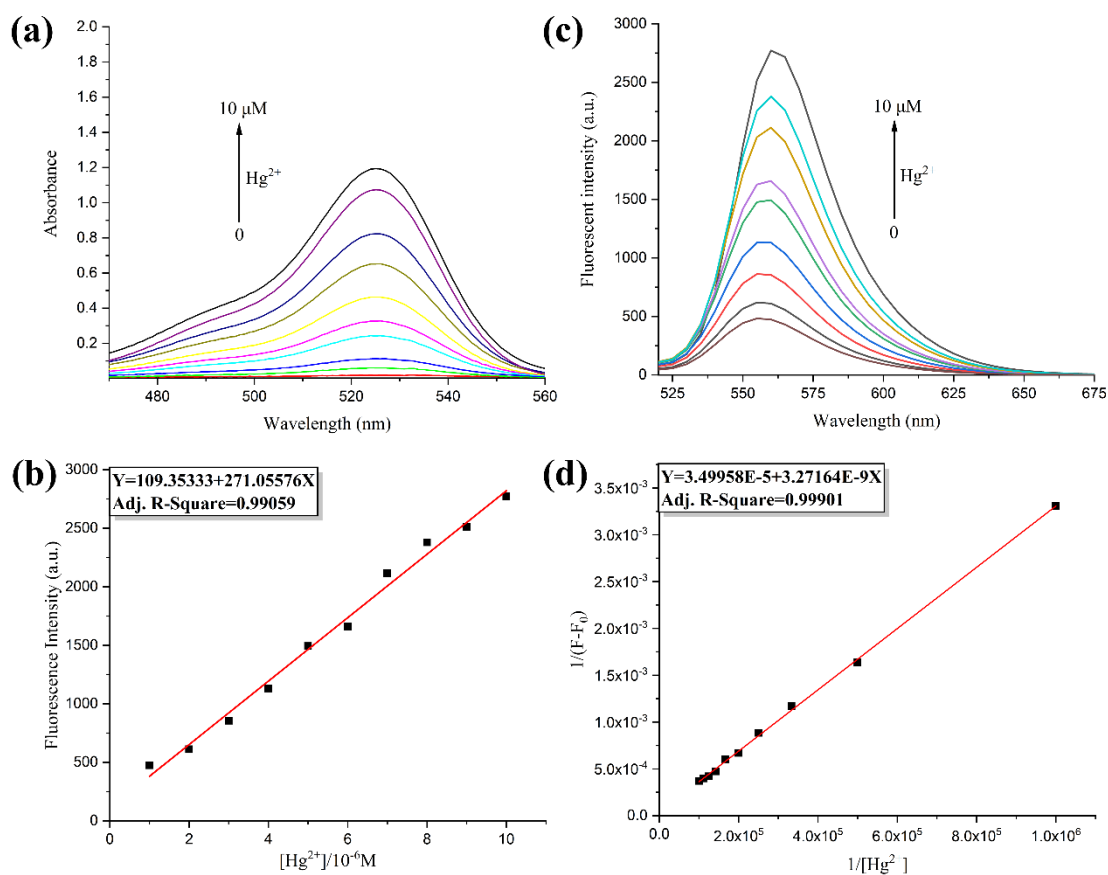


Fig. S1. (a) Absorption spectra of Probe 2 (10 μM) upon the addition of Hg^{2+} (1.0-10.0 μM) in DMSO: PBS buffer solution (1:1, v/v). (b) Linear curve in the concentration range of 0.1 μM to 10 μM . (insert) the corresponding fluorescence spectra. (c) Fluorescence spectra of Probe 2 (10 μM) upon the addition of Hg^{2+} (1.0-10.0 μM) in DMSO: PBS buffer solution (1:1, v/v). (d) Benesi-Hildebrand plot of Probe 2 using 1:1 stoichiometry for association between probe1 and Hg^{2+} .

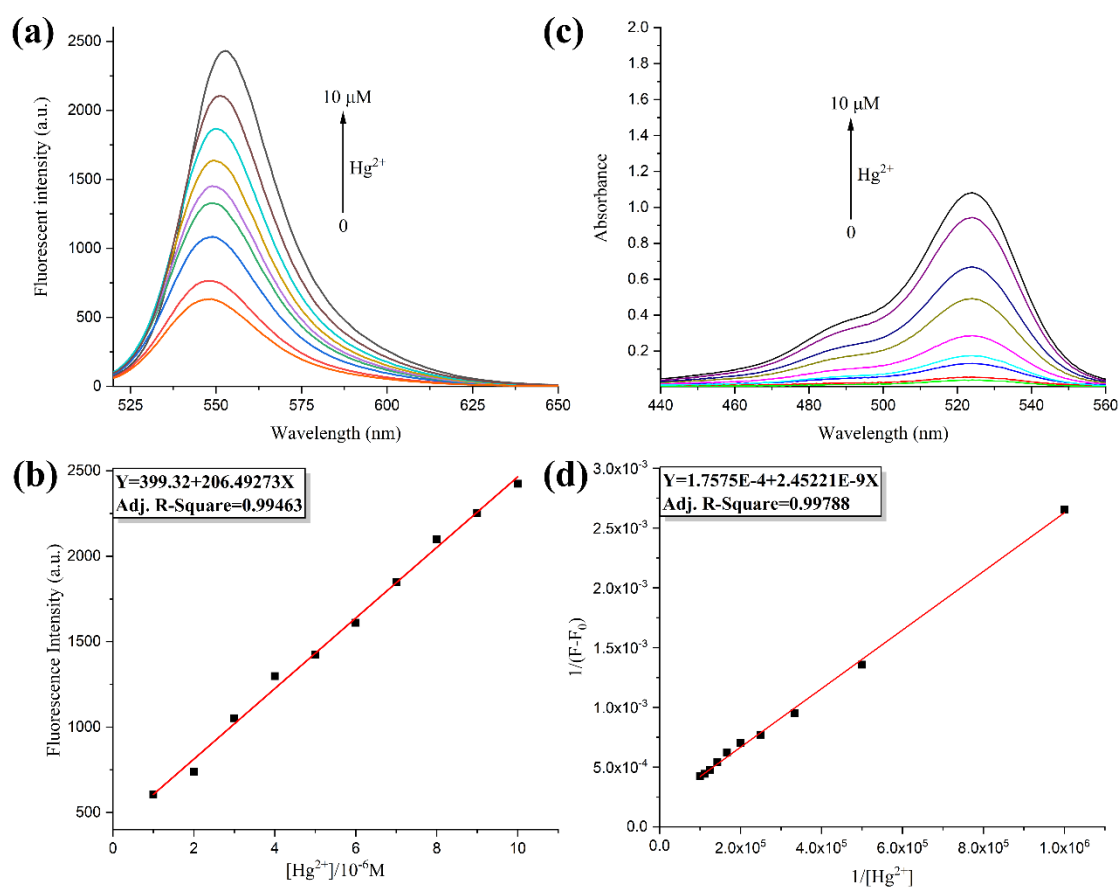


Fig. S2. (a) Absorption spectra of Probe 3 (10 μM) upon the addition of Hg^{2+} (1.0-10.0 μM) in DMSO: PBS buffer solution (1:1, v/v). (b) Linear curve in the concentration range of 0.1 μM to 10 μM . (insert) the corresponding fluorescence spectra. (c) Fluorescence spectra of Probe 3 (10 μM) upon the addition of Hg^{2+} (1.0-10.0 μM) in DMSO: PBS buffer solution (1:1, v/v). (d) Benesi-Hildebrand plot of Probe 3 using 1:1 stoichiometry for association between probe1 and Hg^{2+} .

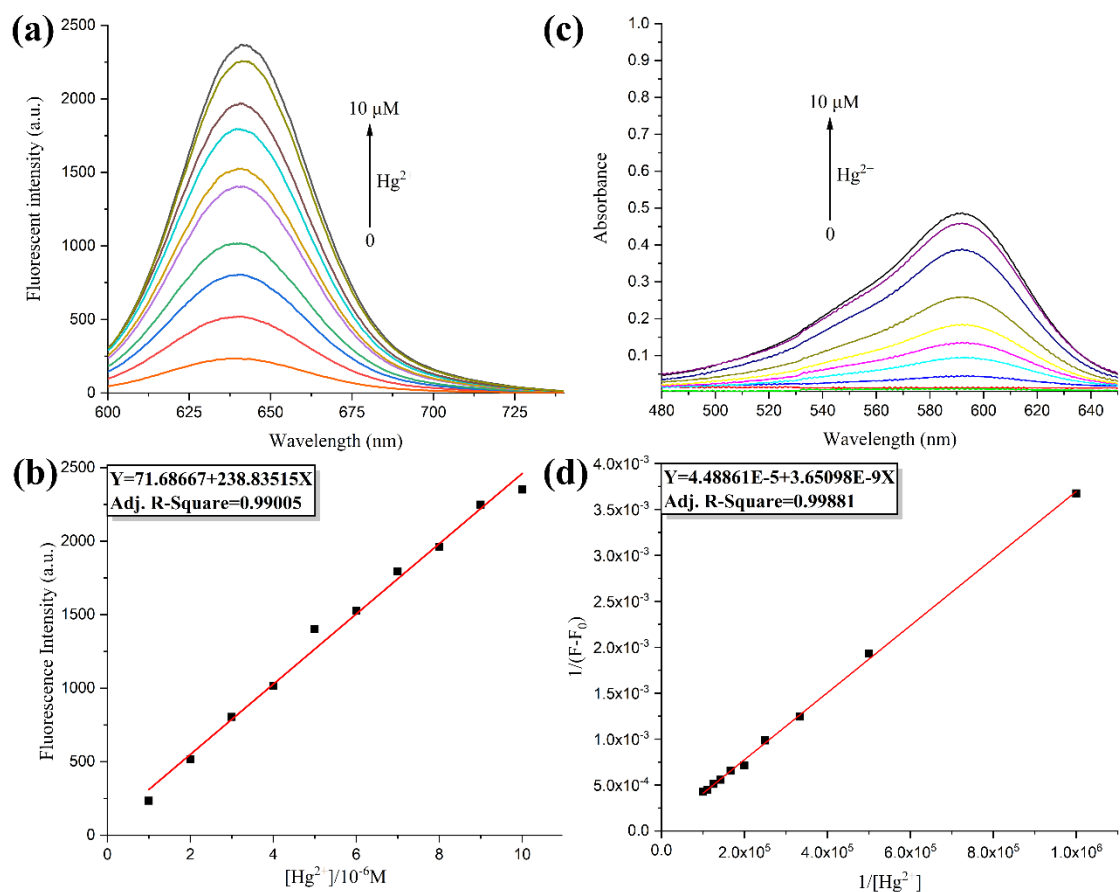


Fig. S3. (a) Absorption spectra of Probe 4 (10 μM) upon the addition of Hg^{2+} (1.0-10.0 μM) in DMSO: PBS buffer solution (1:1, v/v). (b) Linear curve in the concentration range of 0.1 μM to 10 μM . (insert) the corresponding fluorescence spectra. (c) Fluorescence spectra of Probe 4 (10 μM) upon the addition of Hg^{2+} (1.0-10.0 μM) in DMSO: PBS buffer solution (1:1, v/v). (d) Benesi-Hildebrand plot of Probe 4 using 1:1 stoichiometry for association between probe1 and Hg^{2+} .