

Supplementary Information for

A Hg²⁺ selective fluorescent chemosensor based on Rhodamine B thiohydrazide and its application in bioimaging

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Fig. S1. Scheme 1. Synthesis of RN2.-----S2

Fig. S2. ¹H NMR of RN1-----S3

Fig. S3. ¹H NMR of RN2-----S4

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CH₃CN/PBS (v/v) buffer solution. The excitation wavelength was 510nm.-----S7

Fig. S7. Job's plot of the complexation between RN2 and Hg²⁺ with a total concentration of 50μM in CH₃CN/PBS

(1:1, v/v pH 7.5) buffer solution.-----S7

Fig. S8. Scheme 2. Proposed binding modes of RN2 with Hg²⁺.-----S7

24 **Fig. S9.** Variation of absorbance of RN2 (10 μ M) in the presence of 2 equiv Hg²⁺ in CH₃CN/PBS (1:1, v/v) buffer
25 solution as function of different pH values.-----S8

26 **Fig. S10.** Photograph of fluorescence changes of RN2 sensing membrane upon addition of Hg²⁺ in the CH₃CN/PBS
27 (1:1, v/v pH 7.5) buffer solution (from left to right: 1.0 \times 10⁻¹⁰ M, 1.0 \times 10⁻⁹ M, 1.0 \times 10⁻⁸ M, 1.0 \times 10⁻⁷ M, 1.0 \times 10⁻⁶ M,
28 1.0 \times 10⁻⁵ M, 1.0 \times 10⁻⁴ M, 1.0 \times 10⁻³ M).-----S8

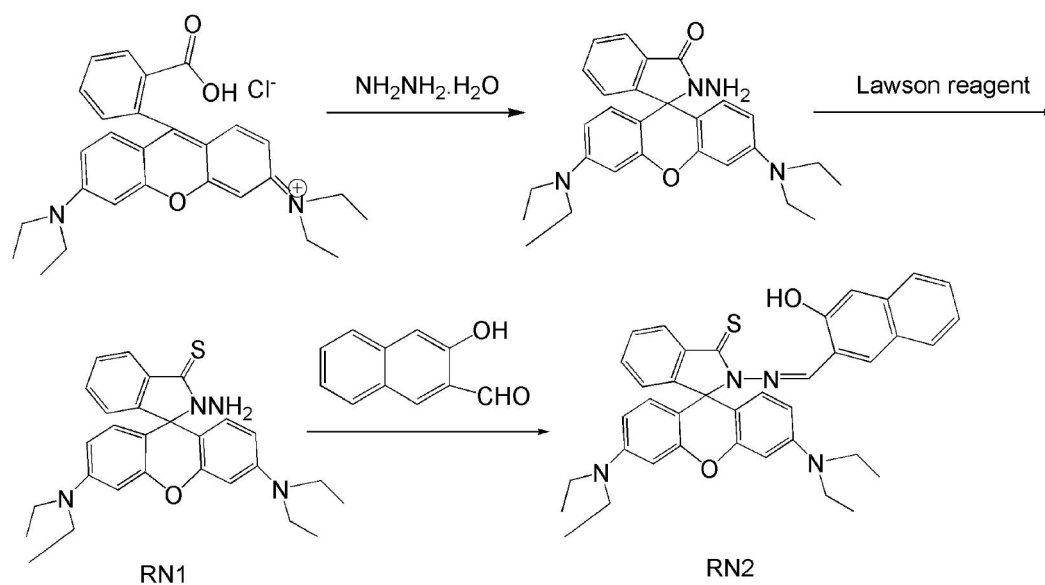
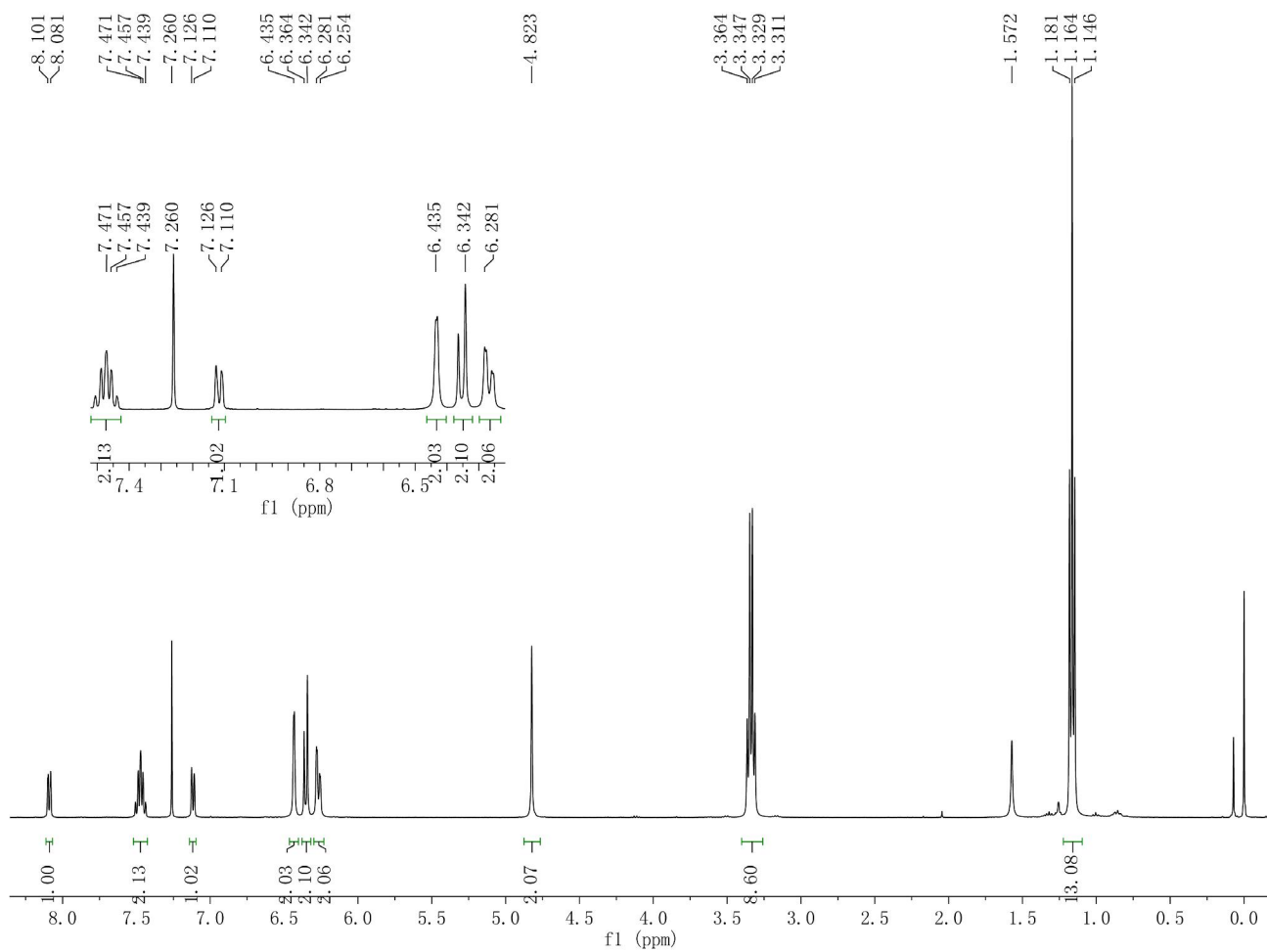


Figure S1. Scheme 1. Synthesis of RN2.

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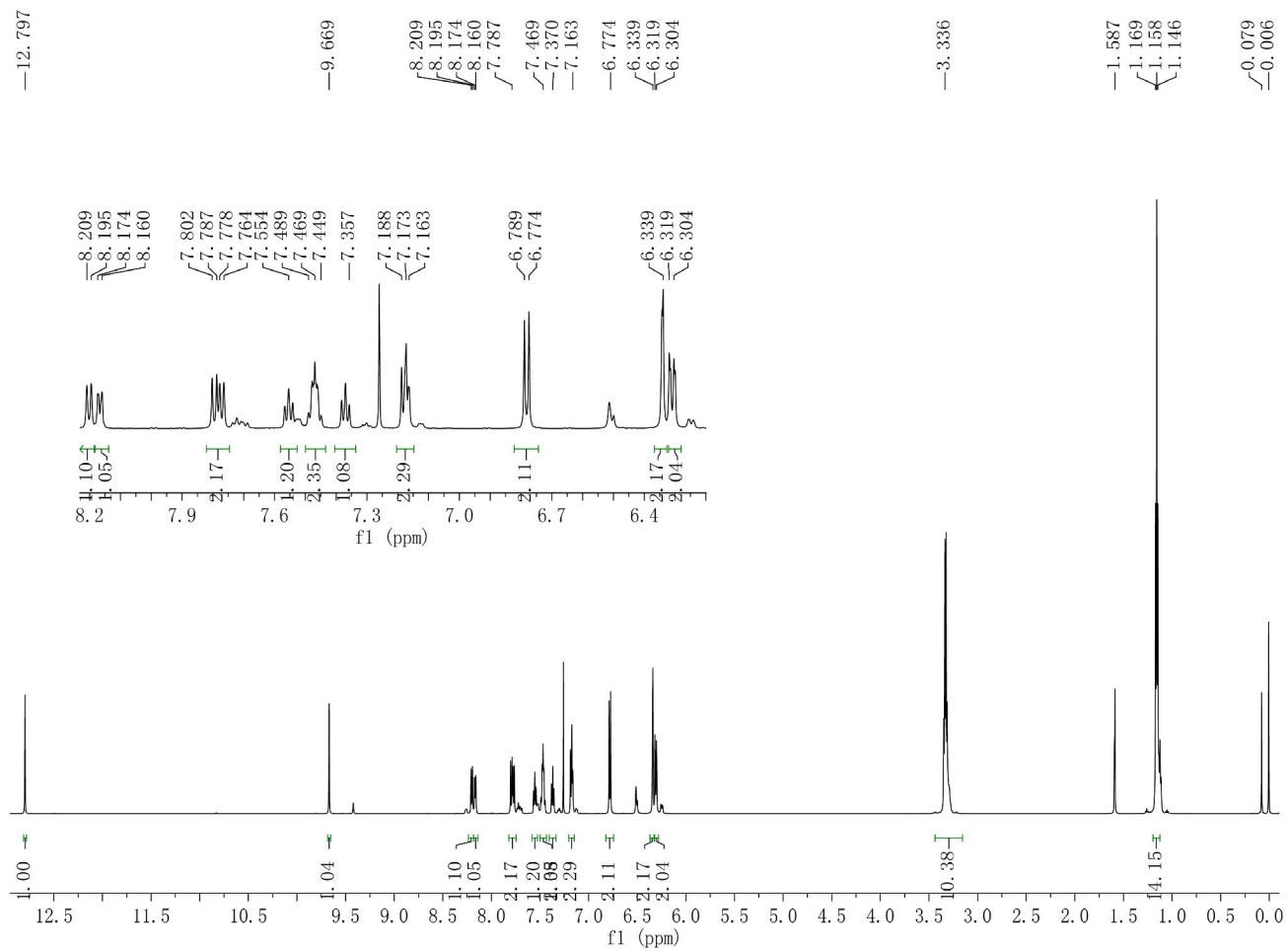
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Fig. S2. ¹H NMR of RN1

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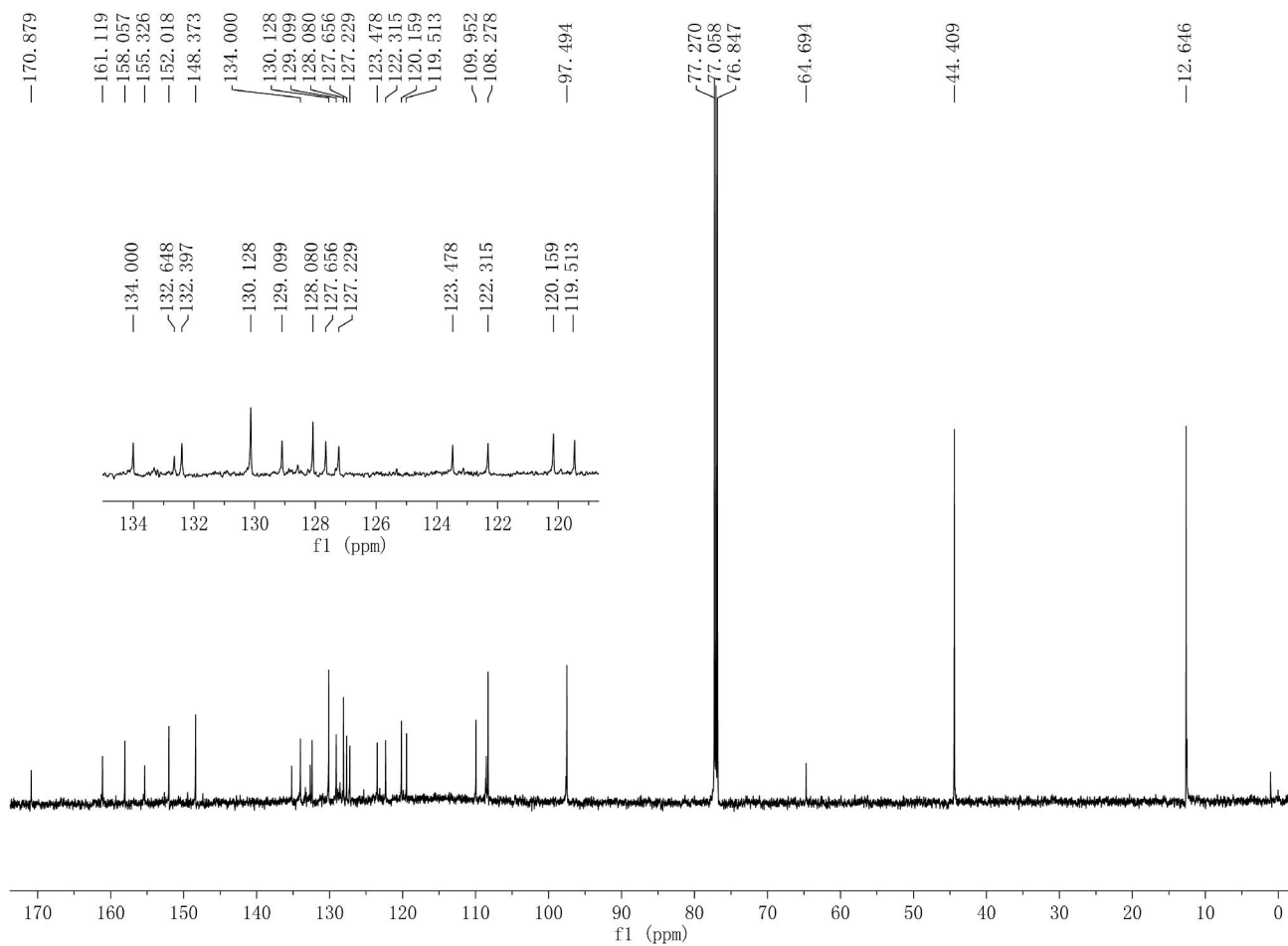
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Fig. S3. ¹H NMR of RN2

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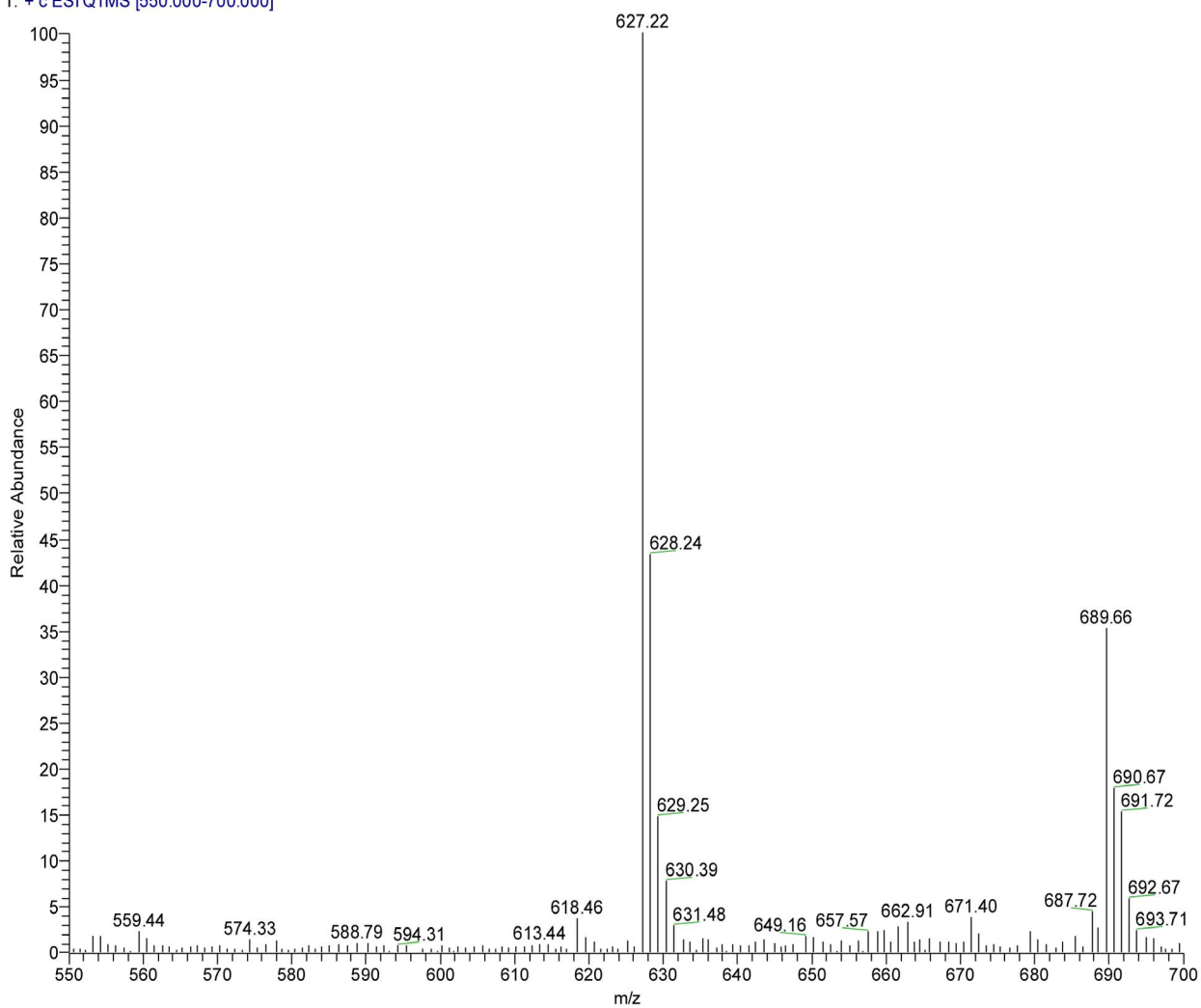
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Fig. S4. ^{13}C NMR of RN2

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T: + c ESI Q1MS [550.000-700.000]



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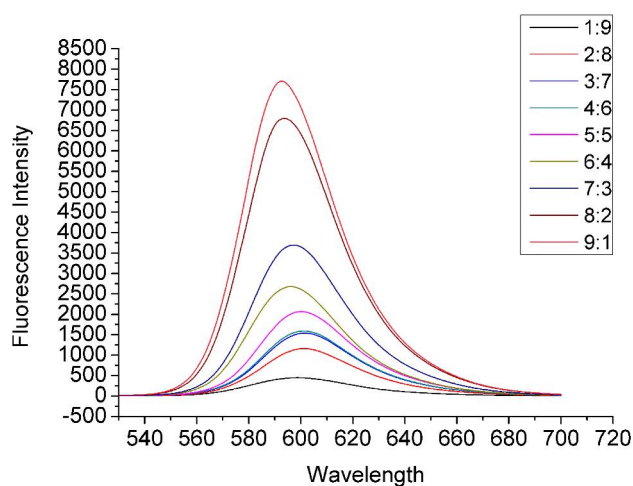
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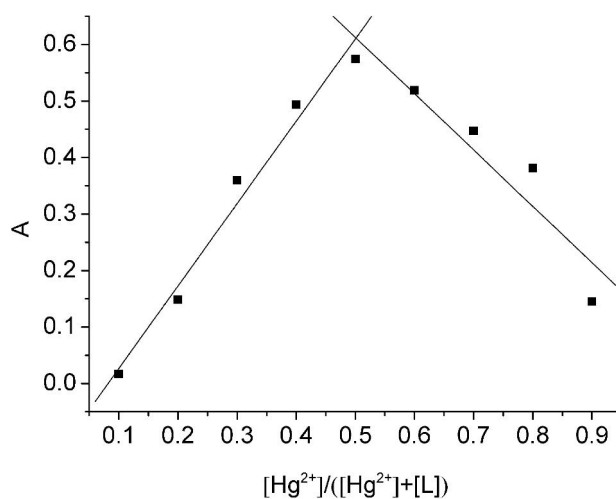
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Fig. S5. ESI-MS of RN2



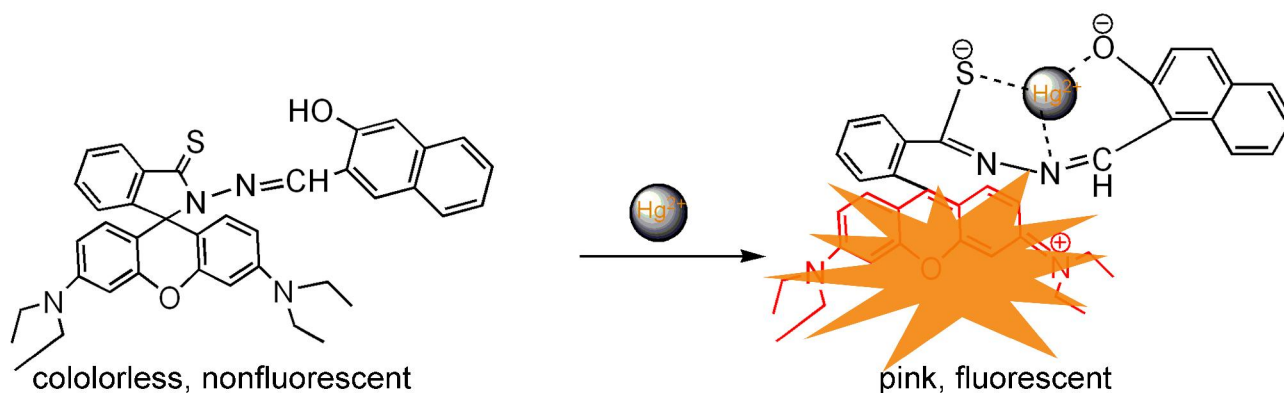
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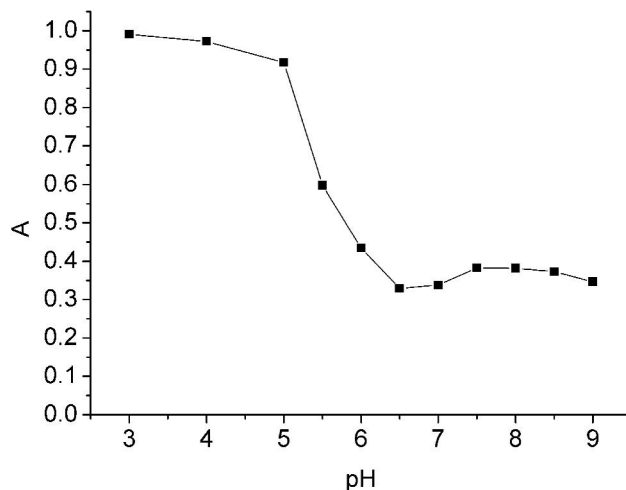
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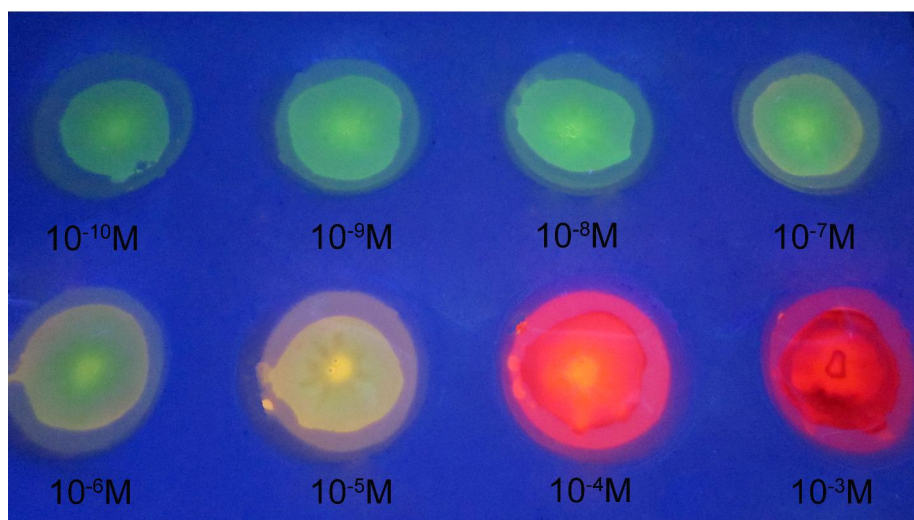
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