**Simple and practical, highly sensitive and responsive recognition of cysteine: Design, synthesis and mechanism study of a novel curcumin fluorescent probe**

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**Supporting information**

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**Fig. S1** Emission spectra of compounds **4** and **5** at different excitation wavelengths.

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**Fig. S2** UV-Vis spectra of 0-8 μL of 1 M Cys in 3 mL 100 μM compounds **4** and **5** (1 mL per titration, 0eq → 27eq Cys); (A) Compound **4**; (B) Compound **5**.

**S-1··········································································Ultraviolet and fluorescence spectra**

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**Fig. S3** 1H NMR of compound **2**.

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**Fig. S4** 13C NMR of compound **2**.

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**Fig. S5** ITMS (ESI+) of compound **2**.

**S-2·····························································1H-NMR, 13C-NMR and ITMS of Compound 2**

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**Fig. S6** 1H NMR of compound **3**.

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**Fig. S7** 13C NMR of compound **3**.

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**Fig. S8** ITMS (ESI+) of compound **3**.

**S-3·····························································1H-NMR, 13C-NMR and ITMS of Compound 3**

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**Fig. S9** 1H NMR of compound **4**.

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**Fig. S10** 13C NMR of compound **4**.

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**Fig. S11** ITMS (ESI+) of compound **4**.

**S-4·····························································1H-NMR, 13C-NMR and ITMS of Compound 4**

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**Fig. S12** 1H NMR of compound **5**.

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**Fig. S13** 13C NMR of compound **5**.

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**Fig. S14** ITMS (ESI+) of compound **5**.

**S-5·····························································1H-NMR, 13C-NMR and ITMS of Compound 5**