Electronic Supplementary Material (ESI) for RSC Advances.

Sulfhydryl functionalized carbon quantum dots as a turn-off fluorescent probe for sensitive detection of Hg^{2+}

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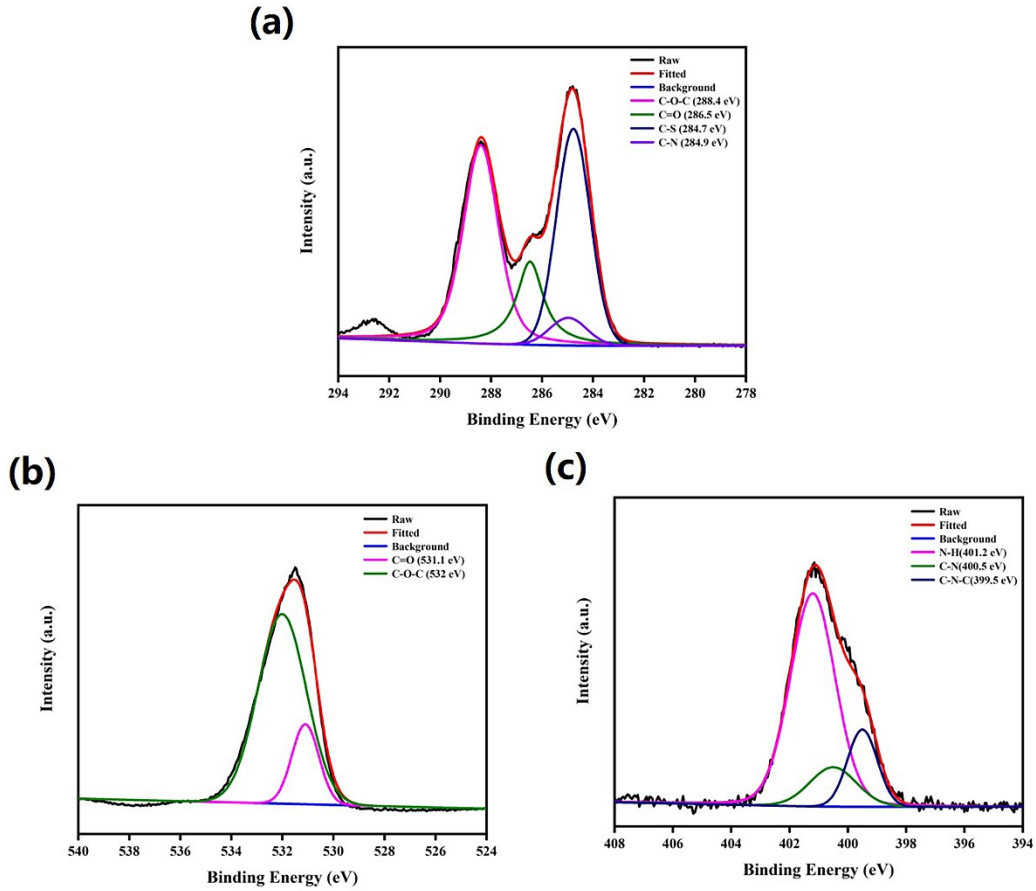

Fig S1. High resolution XPS spectra of **(a)** C1s, **(b)**O1s, **(c)**N1s of HS-CQDs.

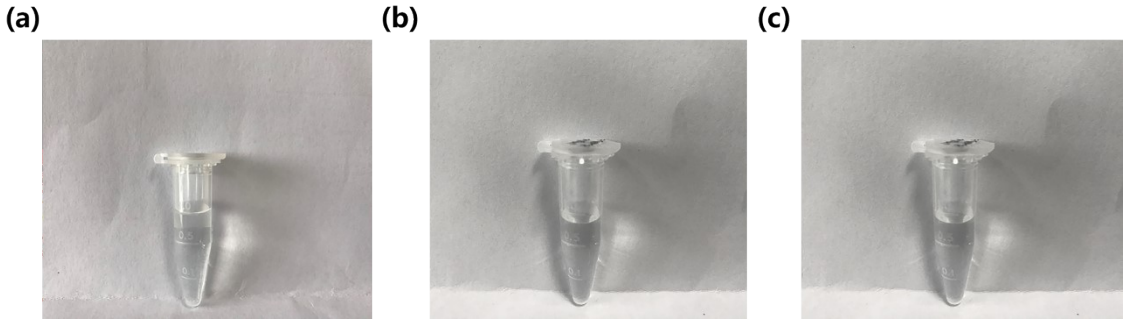

Fig S2. Images of HS-CQDs solutions(1mg/mL) placed for 0h **(a)**, 8h **(b)** and 24h **(c)**.

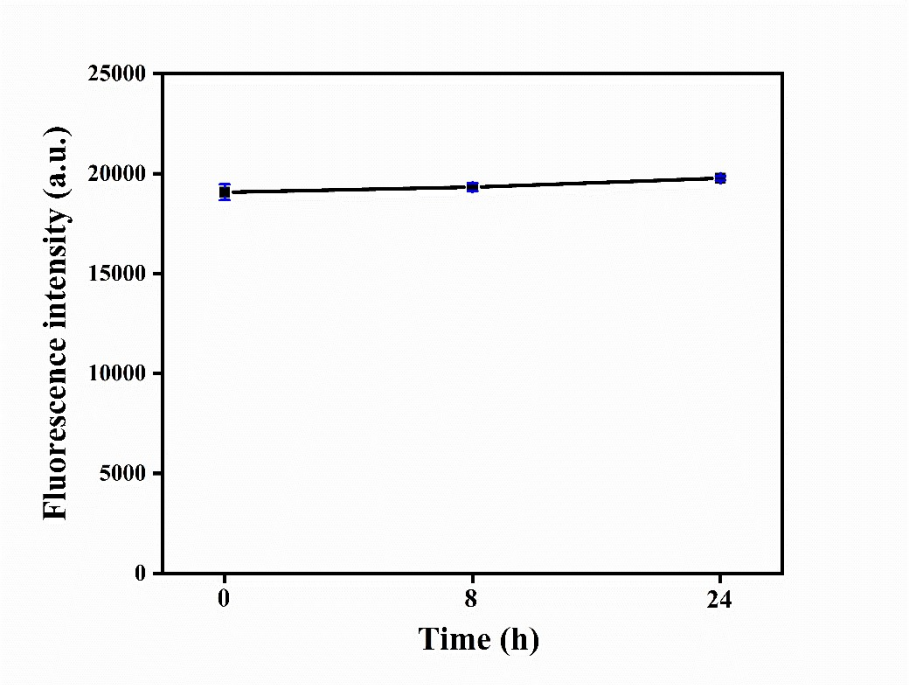

Fig S3. Fluorescence spectra of HS-CQDs solutions (25 μg/mL) placed for 0h, 1h and 2h. λex=350nm.

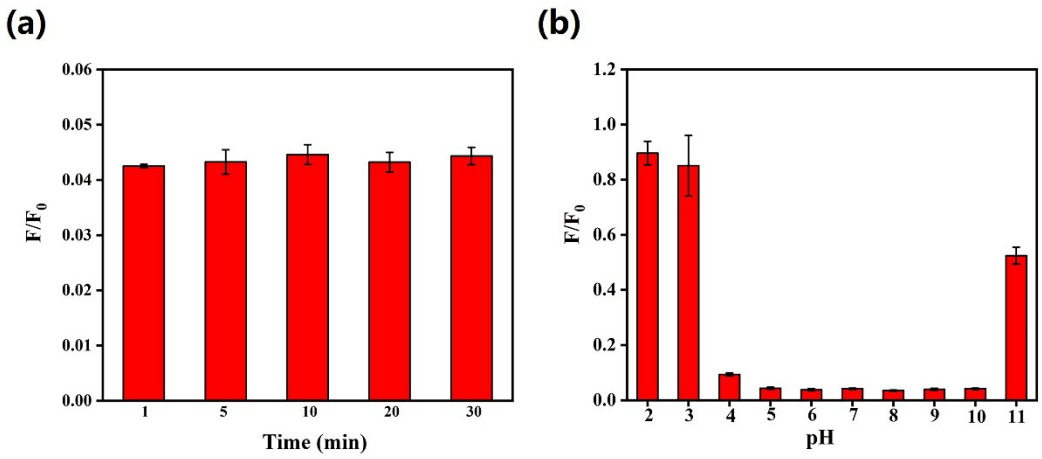

Fig S4. Effect of **(a)** reaction time (1~5min) and **(b)** pH value (2~11) on the detection of Hg^{2+}(10μM) by HS-CQDs(25 μg/mL). λex=350nm.

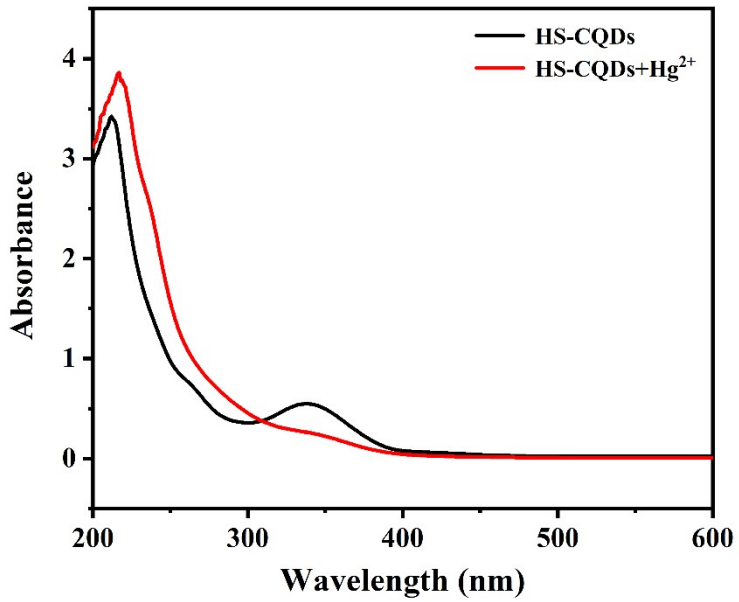

Fig S5. UV-Vis spectra for the HS-CQDs (100 μg/mL) with or without Hg^{2+}(50 μM).