

## Supporting Information

### A hydrothermal route for synthesizing high luminescent sulfur- and nitrogen-co-doped carbon dots as nanosensor for Hg<sup>2+</sup>

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Fig. S3  $F/F_0$  of the S/N-CDs-1 in PBS (10 mM, pH 7.0) with 40  $\mu$ M different metal ions.  $F$  and  $F_0$  correspond to the fluorescence intensities of the S/N-CDs-1 with and without 40 mM of different metal ions, respectively.

Table S1 Results of Hg<sup>2+</sup> detection in river water using photoluminescent S/N-CDs-1 ( $n=3$ ).

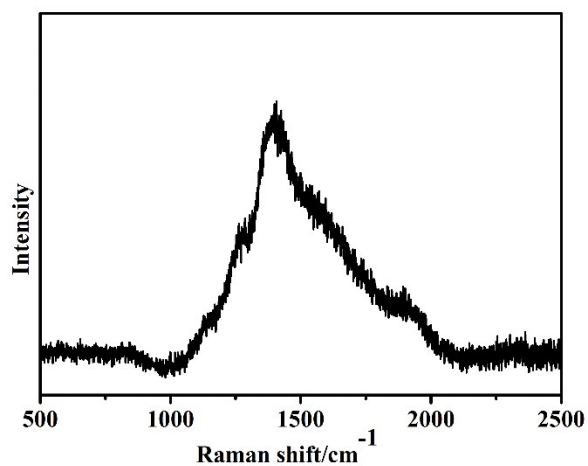


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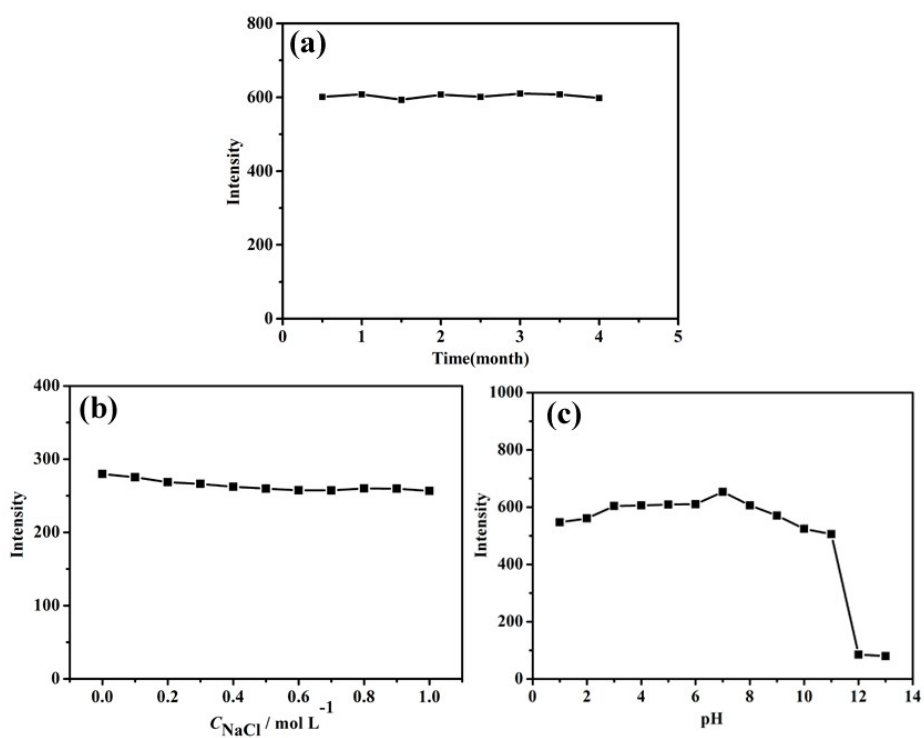


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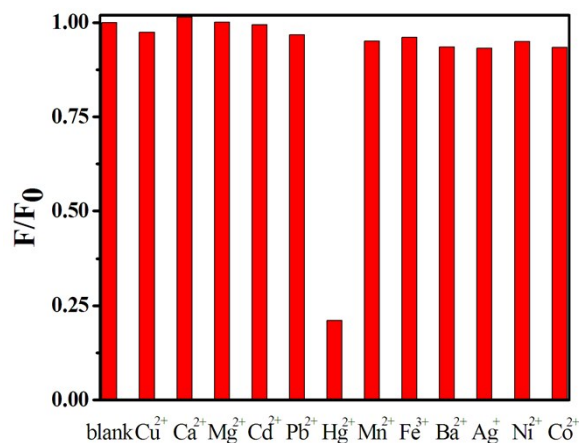


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Table S1 Results of  $\text{Hg}^{2+}$  detection in river water using photoluminescent S/N-CDs-1 ( $n=3$ ).

Samples	Added $\text{Hg}^{2+}$ / $\mu\text{M}$	Found $\text{Hg}^{2+}$ / $\mu\text{M}$	RSD / %	Recovery / %
river water 1	0	No detected	—	—
river water 2	30.0	29.6	1.9	98.7
river water 3	60.0	62.1	1.2	103.5