Supporting Information

Facile synthesis of oxygen and sulfur co-doped graphitic carbon nitride fluorescent quantum dots and their application for mercury (II) detection and bioimaging

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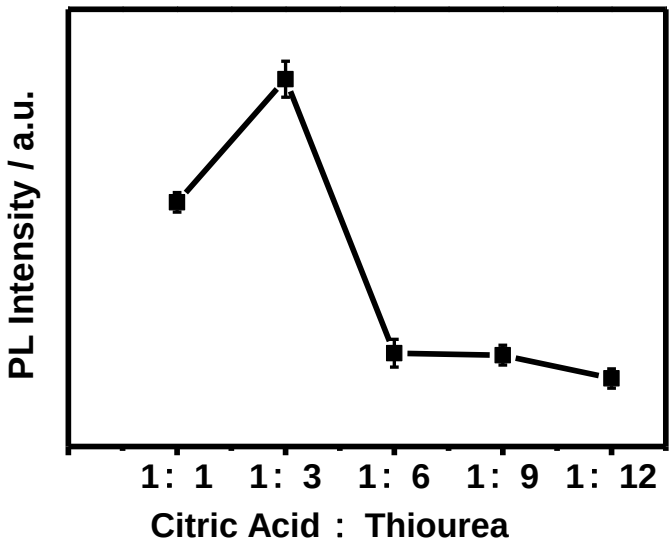

Fig. S1 PL intensities of OS-GCNQDs in different ratios of citric acid and thiourea.

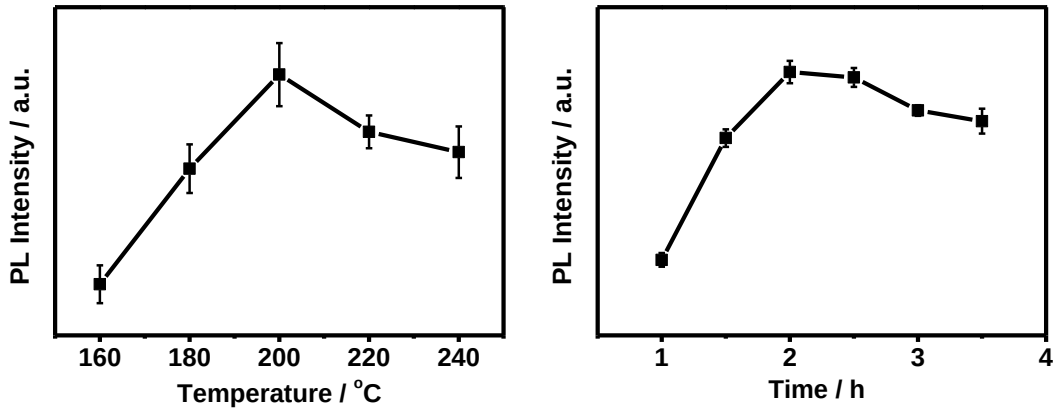

Fig. S2 PL intensities of OS-GCNQDs with different reaction temperature (A) and time (B).

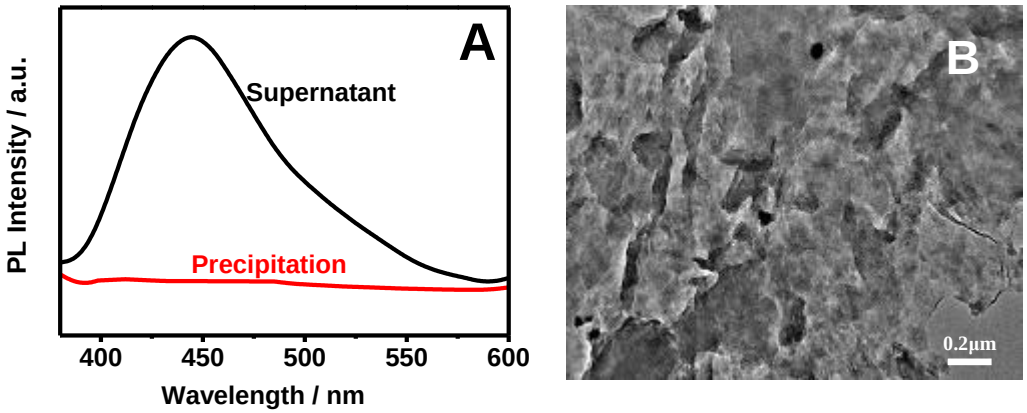

Fig. S3 (A) PL intensities of the supernatant and precipitation. (B) TEM image of the precipitation.

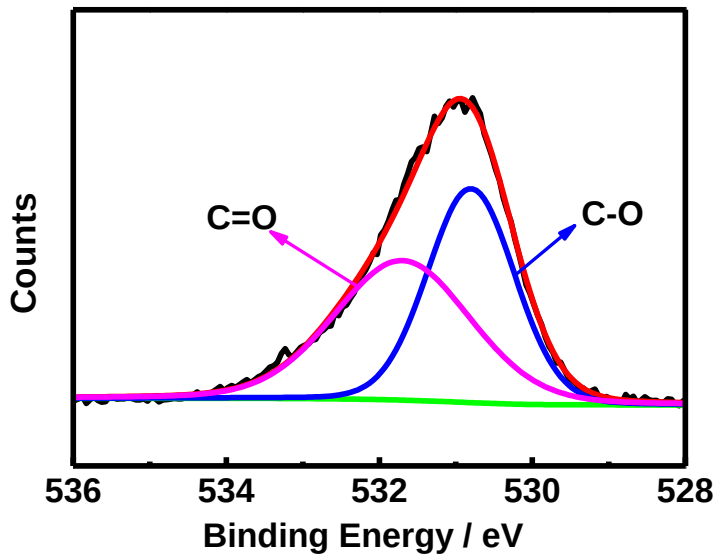

Fig. S4 High-resolution O_{1s} XPS spectrum of OS-GCNQDs.

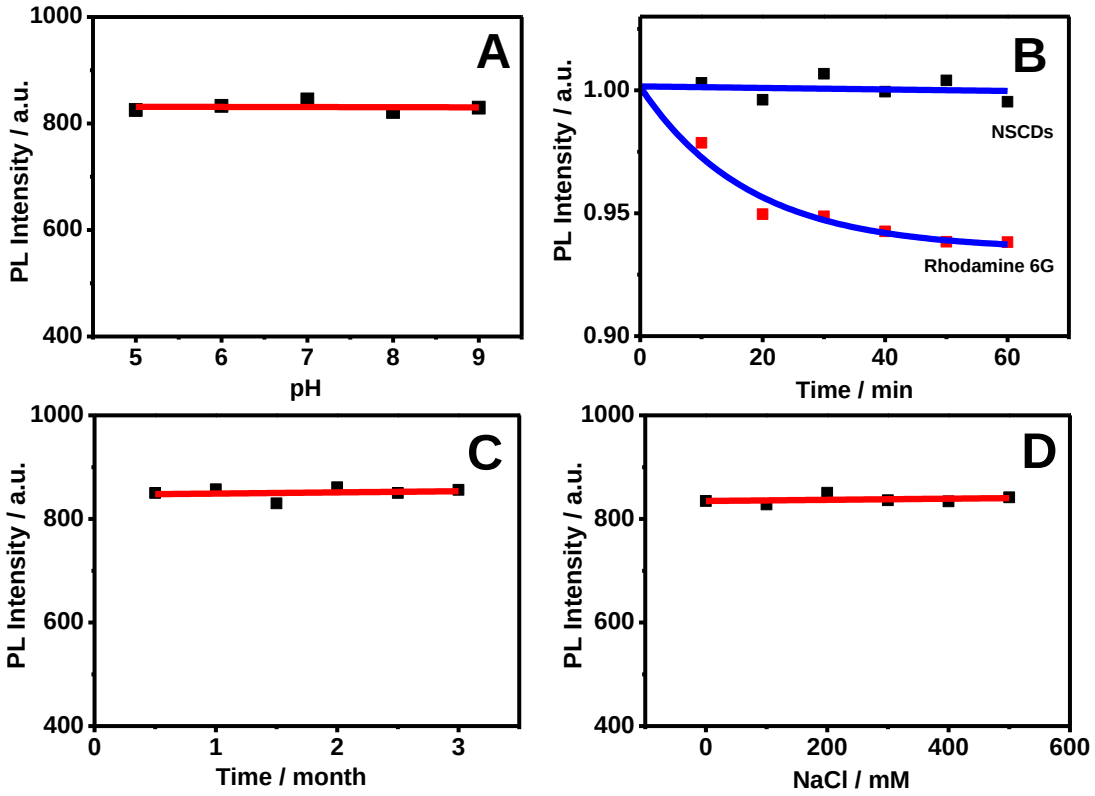

Fig. S5 PL intensities of OS-GCNQDs in different pH values (A), under irradiation by a 500 W Xe lamp for different time intervals with rhodamine 6G (B), and in different storage time (C) and ionic strength (D).

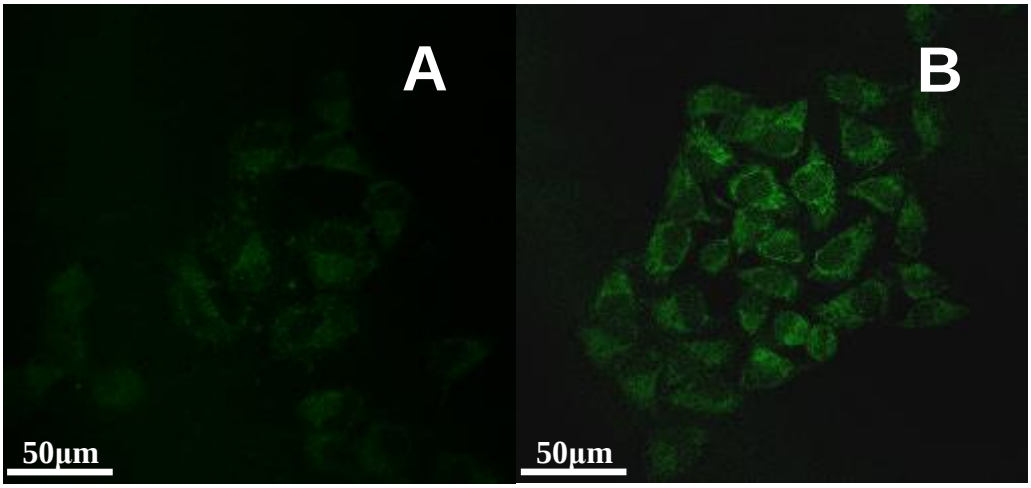

Fig. S6 Images of Hela cells in the presence of OS-GNCQDs taken under excitation wavelength of 488 nm with 7.5 μg mL^{-1} (A) and 75.0 μg mL^{-1} (B) of OS-GNCQDs.

Table S1 Comparison of the sensing performances of different fluorescence probes for Hg^{2+} detection.

Fluorescence probes	Detection limit	Linear range	QY (%)	Reference
CdS nanoparticles	4.5 nM	0.015～12.5 μM	—	1
Ag nanoparticles	25 nM	0.05～5 μM	—	2
Au nanoparticles	17 nM	0.167～2.5 μM	5.5	3
CQDs	1 nM	0～40 μM	2.8	4
OS-GNCQDs	0.37 nM	0.001 ~ 20.0 μM	14.5	Our work

References

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