Electronic Supplementary Information

Green and facile synthesis of silicon doped carbon dots with their use in detection for Hg^{2+} and visualization of latent fingerprints

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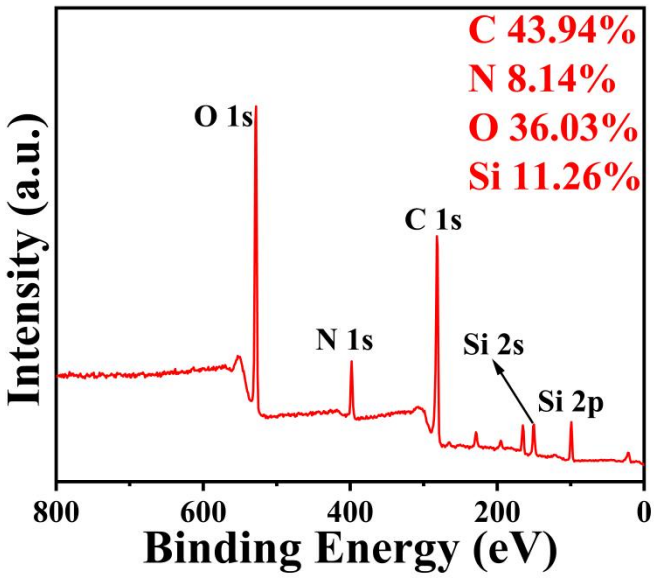

Fig. S1 Full survey XPS spectra of the Si-CDs.

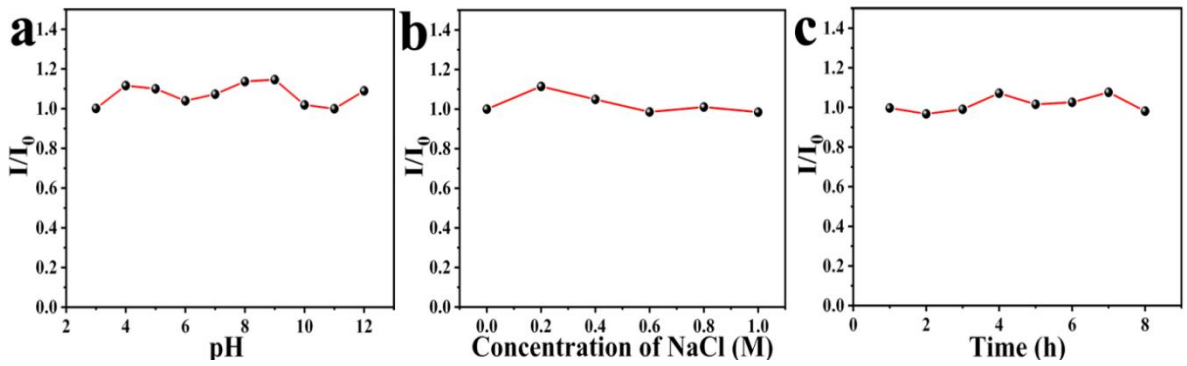

Fig. S2 Fluorescence intensity ratio I/I_0 of the Si-CDs under (a) different pH, (b) different salinity conditions, (c) different storage times.

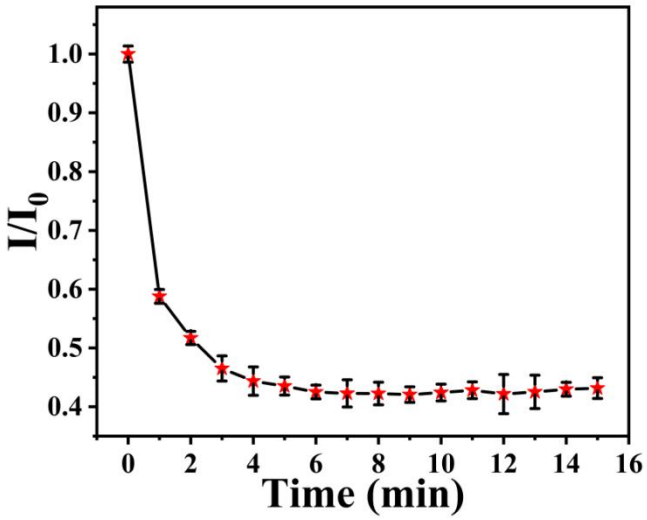

Fig. S3 Fluorescence intensity ratio (I/I_0) of Si-CDs at different incubating time from 0-15 min in the presence of Hg^{2+} (100 μM).

Table S1 Comparison of different sensors for Hg^{2+} detection.

Material	**Linear range (μM)**	**LOD (nM)**	**Reference**
Ag-S-gCN QDs	0.1-0.6	13	58
N, S-CDs	1.0-75.0	500	59
N-CQDs	0-18	83.5	60
La-CQDs	0.5 -40	100	61
Bis-hydrazone	0-5	102.5	62
Pyrazoline derivative	20-200	14540	63
Silicon nanocrystals	0.05-1	50	64
Si-CDs	0.008-0.4	33	This work