

Supporting Information for

Controllable and Mass Fabrication of Highly Luminescent N-doped Carbon Dots for Bioimaging Applications

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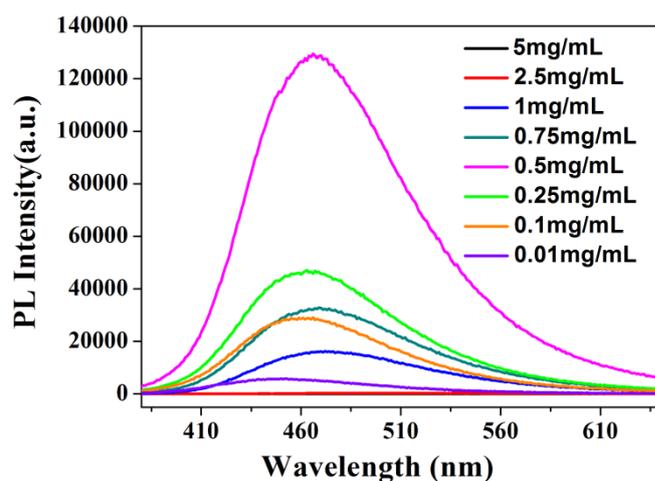


Figure S1 FL spectra of N-C-dots at different concentration. The mass ratio of SC to FA is 20:1.

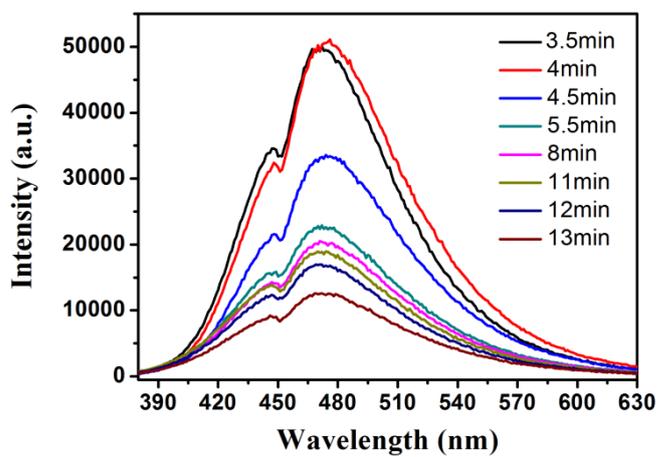


Figure S2 FL spectra of N-C-dots (0.5 mg/mL) prepared at different reaction time. The mass ratio of SC to FA is 20:1.

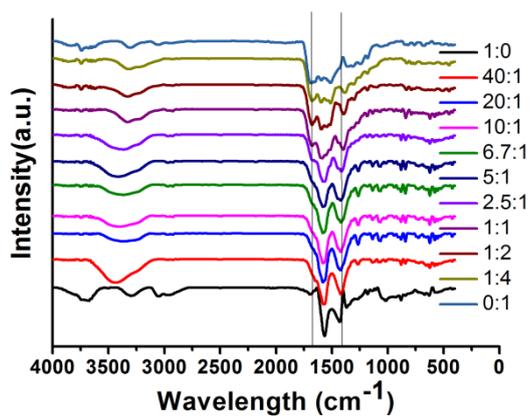


Figure S3 FTIR spectra of N-C-dots prepared with different mass ratio of SC to FA.

Table.S1 Analysis of the Deconvoluted (a) C1s peaks and (b) N1s peaks from XPS and their relative atomic percentage of N-C-dots

(a) C 1s peaks

Sample (SC:FA)	C-C C [%]	C=C C[%]	C-N/C-O C[%]	C=O/C=N C[%]
0	46.78	12.67	14.90	25.65
10:1	30.86	26.20	23.22	19.72
2:1	26.08	38.24	25.12	10.56
0:1	29.92	43.13	12.66	14.29

(b) N 1s peaks

Sample (SC:FA)	Pyridinic N C [%]	Pyrrolic N C[%]	Quaternary N C[%]
0	0	0	0
10:1	30.95	13.54	55.5
2:1	53.84	21.93	24.23
0:1	67.64	9.63	22.73

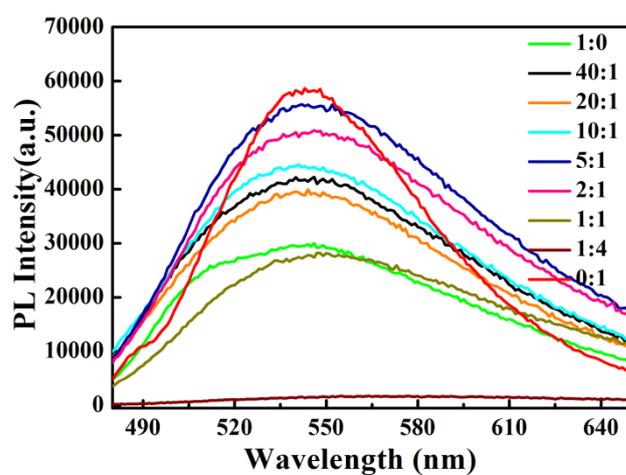


Figure S4 FL spectra of the aqueous solution of C-dots and N-C-dots at 5 mg/mL under irradiation of 490 nm.

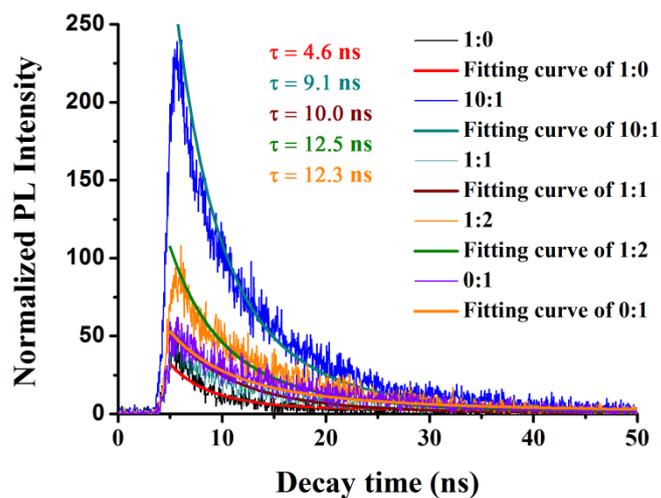


Figure S5 FL lifetime of the C-dots and N-C-dots at 5 mg/mL under irradiation of 365 nm.

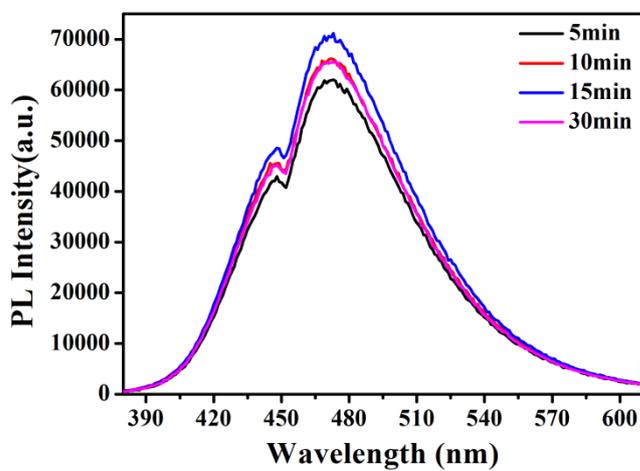


Figure S6 Fluorescence spectra of N-C-dots under 365 nm light (2 W) at different irradiation time .