Supporting Information

Histidine derived nontoxic nitrogen-doped carbon dots for sensing and bioimaging applications

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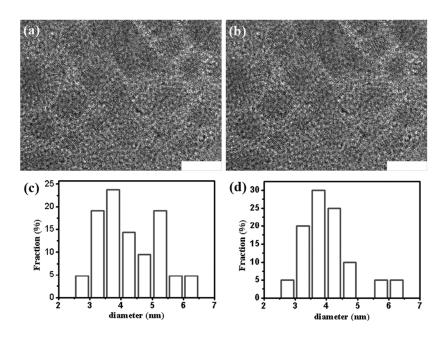


Fig. S1 TEM images of C-10 and C-30 (a,b) the scale bar is 10 nm, particle size distribution histograms of C-10 and C-30 (c,d).



Fig. S2 Photograph of C-10, C-30 and C-60 from left to right.

	Test molecule	C (%)	H (%)	O (Cal.)	N (%)
				(%)	
C-10	$C_{2.67}H_{6.77}O_{2.67}N_{1.32}$	32.00	6.770	42.72	18.51
C-30	$C_{3.79}H_{5.85}O_{1.41}N_{1.87}$	45.47	5.852	22.548	26.13
C-60	$C_{3.86}H_{6.20}O_{1.52}N_{1.65}$	46.36	6.202	24.318	23.12

Table 1 Element analysis of C-10, C-30 and C-60.

Substance	Area	Abs. at 360nm	Refractive	QY (%)	
			index		
Quinine sulfate	181470340	0.024	1.33	54.6	
C-10	4653085	0.024	1.33	1.4	
C-30	8368720	0.024	1.33	2.5	
C-60	29580330	0.024	1.33	8.9	

Table 2 Quantum yield of the CDs samples.

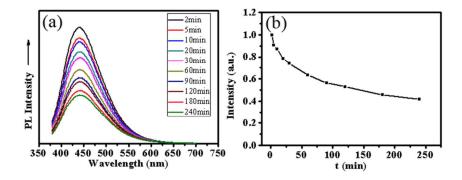


Fig. S3 (a) Dependence of photoluminescence intensity on UV excitation time for C-60 in DI water. (b) Dependence of photoluminescence intensity on UV excitation time for C-60 in DI water after normalization. The concentration of C-60 was 0.01mg.ml. (The excitation wavelength was 365nm, and the intensity of the hand-held UV lamp was 8W/cm.)