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Chemistry B

Simultaneously enhancing up-conversion fluorescence and red-shifting down-conversion luminescence of carbon dots by a simple hydrothermal process

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Supporting figures and tables

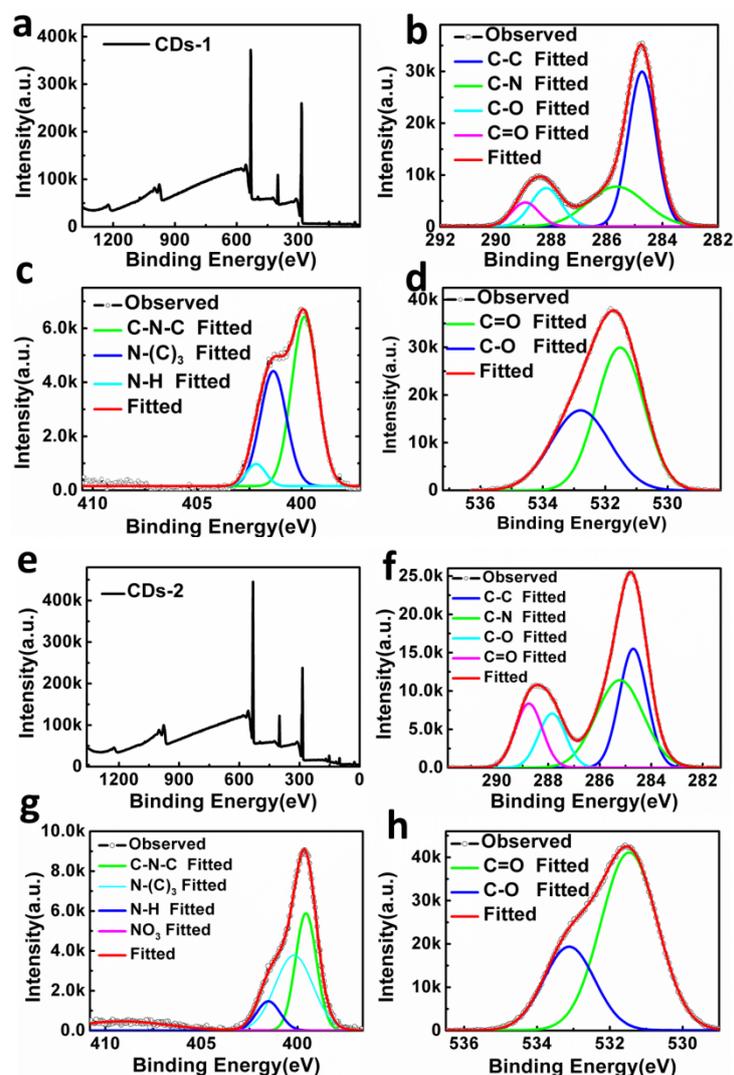


Figure S1. XPS survey scan of CDs. (a) XPS scanning spectrum shows three major peaks of

carbon, nitrogen and oxygen of CDs-1. XPS high resolution survey scan of (b) C_{1s}, (c) N_{1s} and (d) O_{1s} region of CDs-1; (e) XPS, (f) C_{1s}, (g) N_{1s} and (h) O_{1s} spectra of CDs-2.

Table S1. The detailed information of XPS for CDs-1.

Name	Peak/BE	Height/CPS	FWHM/eV	Area (P)/CPS.eV	Area (N)/TPP-2M	Atomic/%
C1s	284.78	34857.53	1.33	73757.16	1.68	61.73
N1s	400.12	6379.25	2.98	18350.35	0.24	8.78
O1s	531.79	37511.72	2.42	96594.27	0.8	29.49

Table S2. The detailed information of XPS for CDs-2.

Name	Peak/BE	Height/CPS	FWHM/eV	Area(P)/CPS.eV	Area(N)/TPP-2M	Atomic %
C1s	284.82	25351.31	1.66	67646.05	1.54	56.05
N1s	399.69	8975.64	1.75	19641.95	0.26	9.3
O1s	531.63	41823.55	2.78	114623.07	0.95	34.65

S2.2 FT-IR Analysis for the two CDs

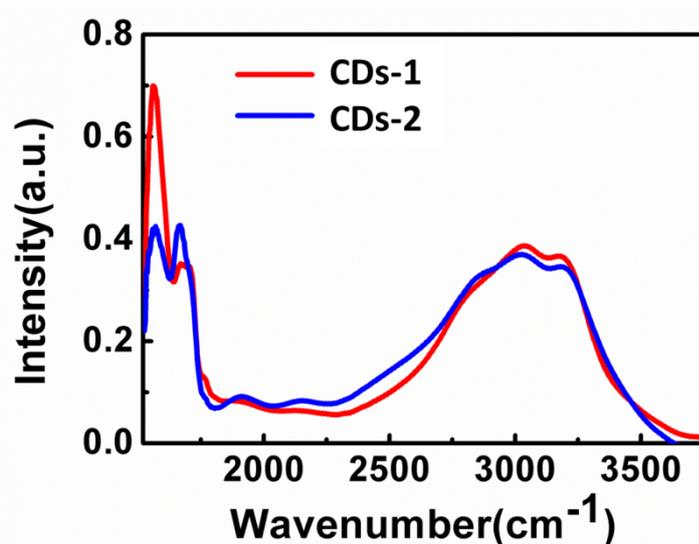


Figure S2. FT-IR spectra of the CDs-1 (red line), and CDs-2 (blue line).

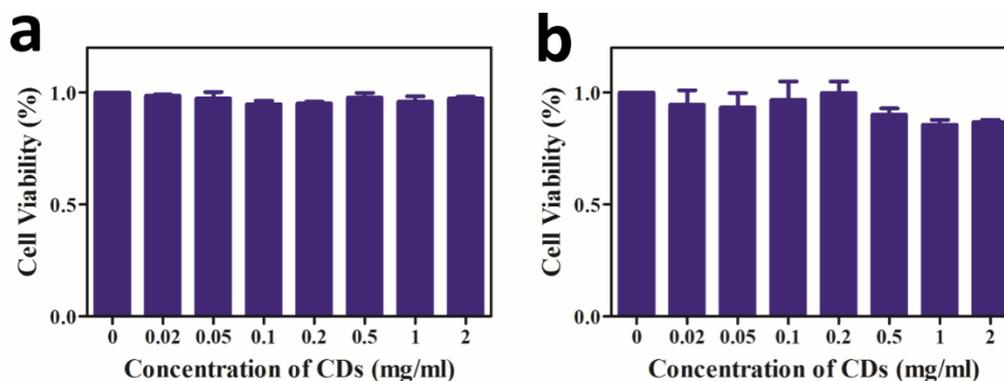


Figure S3. Viability of the HeLa after 24 h a), and 72h b) incubation with the CDs-2.