Supporting Information

Amorphous carbon dots with high two-photon fluorescence for cellular imaging passivated by hyperbranched poly(amino amine)

Gangsheng Tong,^{*,†,a} Jingxia Wang,^{+,b} Ruibin Wang,^a Xinqiu Guo,^a Lin He,^a Feng

Qiu,^c Ge Wang,^a Bangshang Zhu,^a Xinyuan Zhu,^c and Tao Liu^{*,b}

^a Instrumental Analysis Center, Shanghai Jiao Tong University, 800 Dongchuan Road, Shanghai 200240, P. R. China. E-mail: tgs@sjtu.edu.cn

^b UNILAB Research Center of Chemical Reaction Engineering, State Key Laboratory of Chemical Reaction Engineering, East China University of Science and Technology, 130 Meilong Road, Shanghai 200237, P. R. China, E-mail: liutao@ecust.edu.cn

^c School of Chemistry and Chemical Engineering, State Key Laboratory of Metal Matrix Composites, Shanghai Jiao Tong University, 800 Dongchuan Road, Shanghai 200240, P. R. China.

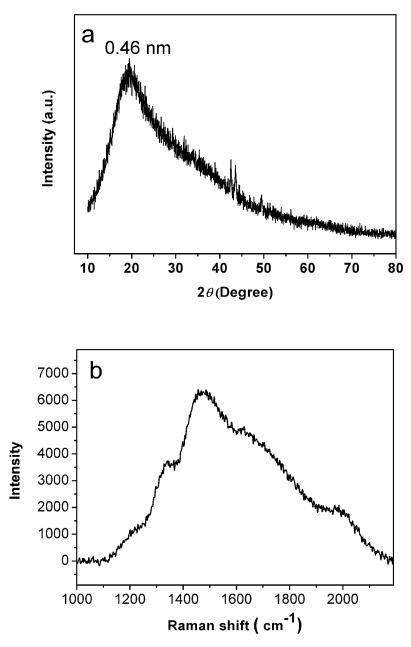


Fig. S1 XRD pattern (a) and Raman spectrum (b) of C-Dots.

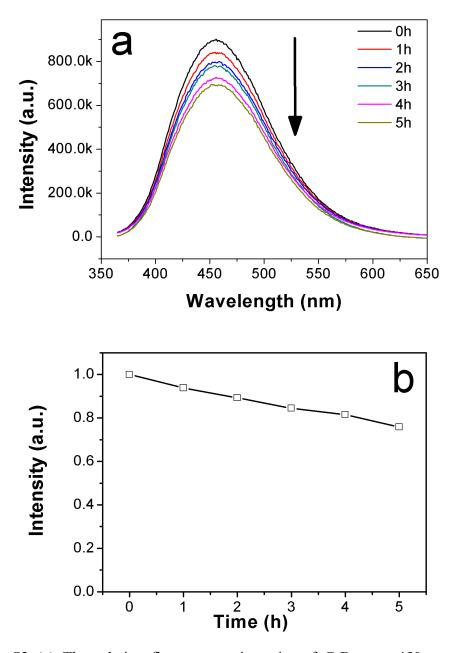


Fig. S2 (a) The relative fluorescence intensity of C-Dots at 450 nm in aqueous solution (0.01 mg mL⁻¹) versus time of exposure to 24 W UV radiation, (b) The normalized figure according to the figure (a).

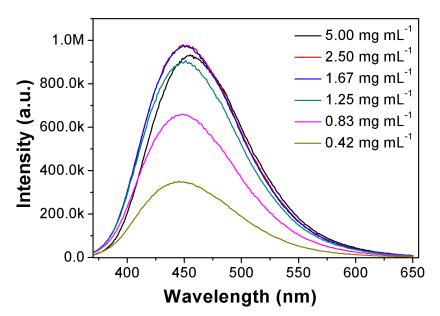


Fig. S3 The relative fluorescence intensity under the excitation at 360 nm versus the concentration of C-Dots in water.

Substance	Integral Area	UV abs.	Excitation	QY
			(nm)	(%)
Quinine sulfate	3.90×10 ⁷	4.02×10 ⁻²	346	54.0
CA	1.51×10^{6}	4.24×10 ⁻²	317	2.0
HPAA	4.01×10^{6}	4.80×10 ⁻²	326	4.7
C-Dots	1.13×10^{7}	3.70×10 ⁻²	360	17.1

Table S1 Quantum yield (QY) of the C-Dots prepared from different materials.