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Supplementary Information

Near-infrared emission carbon dots for bio-imaging applications

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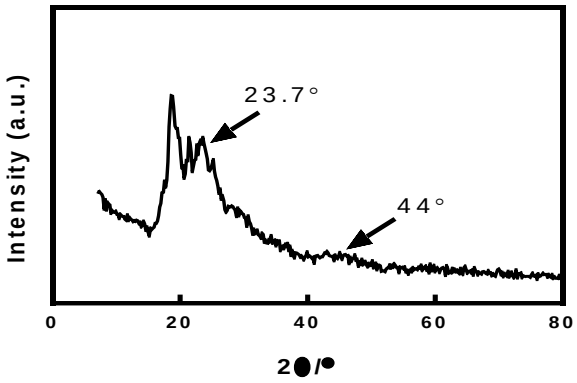
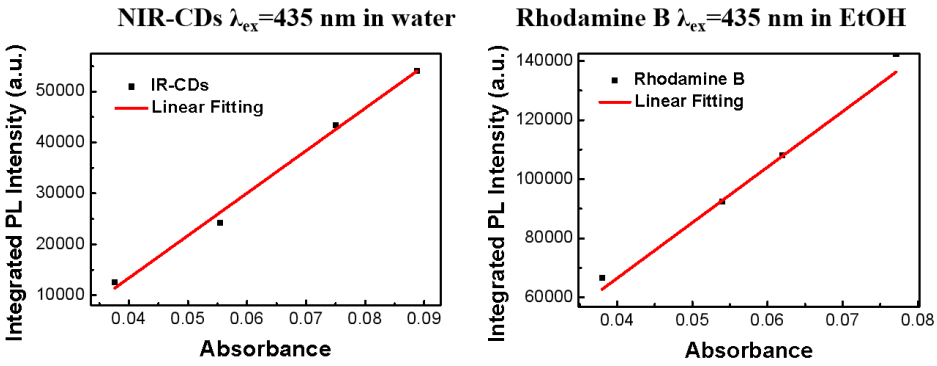


Fig. S1 the XRD patterns of NIR-CDs.



	NIR-CDs				Rhodamine B			
Abs	0.07501	0.08875	0.03762	0.05544	0.07711	0.054	0.038	0.062
Integrated PL	43443	54111	12514	24195	14237	92538	66710	108131
Slope	833718				1879490			
QY	23.8%				56%			

Fig. S2 Plots of PL intensity of NIR-CDs and rhodamine B as the function of optical absorbance at 435 nm.

The QY of the NIR-CDs was measured by a relative method under excitation of 435 nm. The rhodamine B (QY=56 % in ethanol) was chosen as the reference. The QY of the NIR-CDs was calculated according to the following equation:

$$\phi = \phi' \times \frac{A'}{I'} \times \frac{I}{A} \times \frac{n^2}{n'^2}$$

Where ϕ is the QY of the NIR-CDs, I is the NIR-CDs' integrated emission intensity, n is the refractive index (1.36 for ethanol and 1.33 for water) and A is the optical density. The

maximum optical absorbance values were ajusted to 0~0.1.

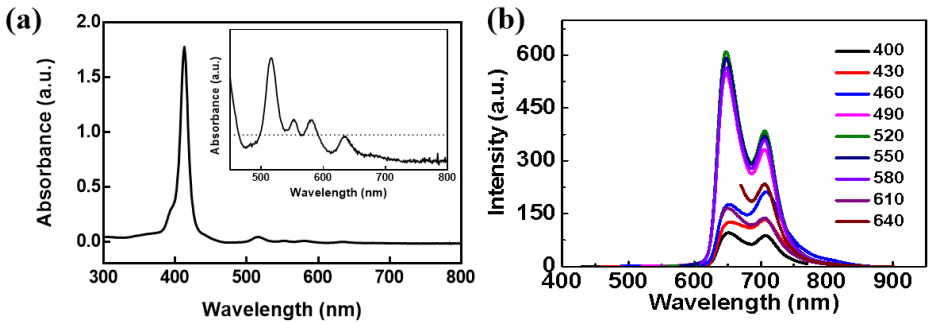


Fig. S3 (a) UV-visible absorption and (b) PL emission spectra of sulfonated tetraphenylporphyrin.