Supplementary Information

Se & N Co-doped Carbon Dots for High-performance Fluorescence Imaging Agent of Angiography

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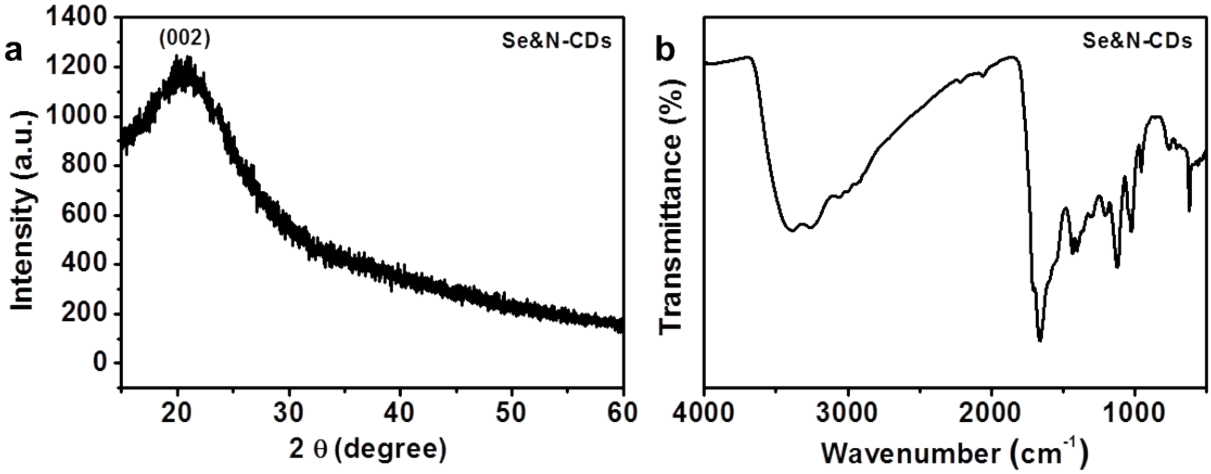

Fig. S1. (a) XRD spectrum characterization of Se&N-CDs, (b) FT-IR spectrum for Se&N-CDs.

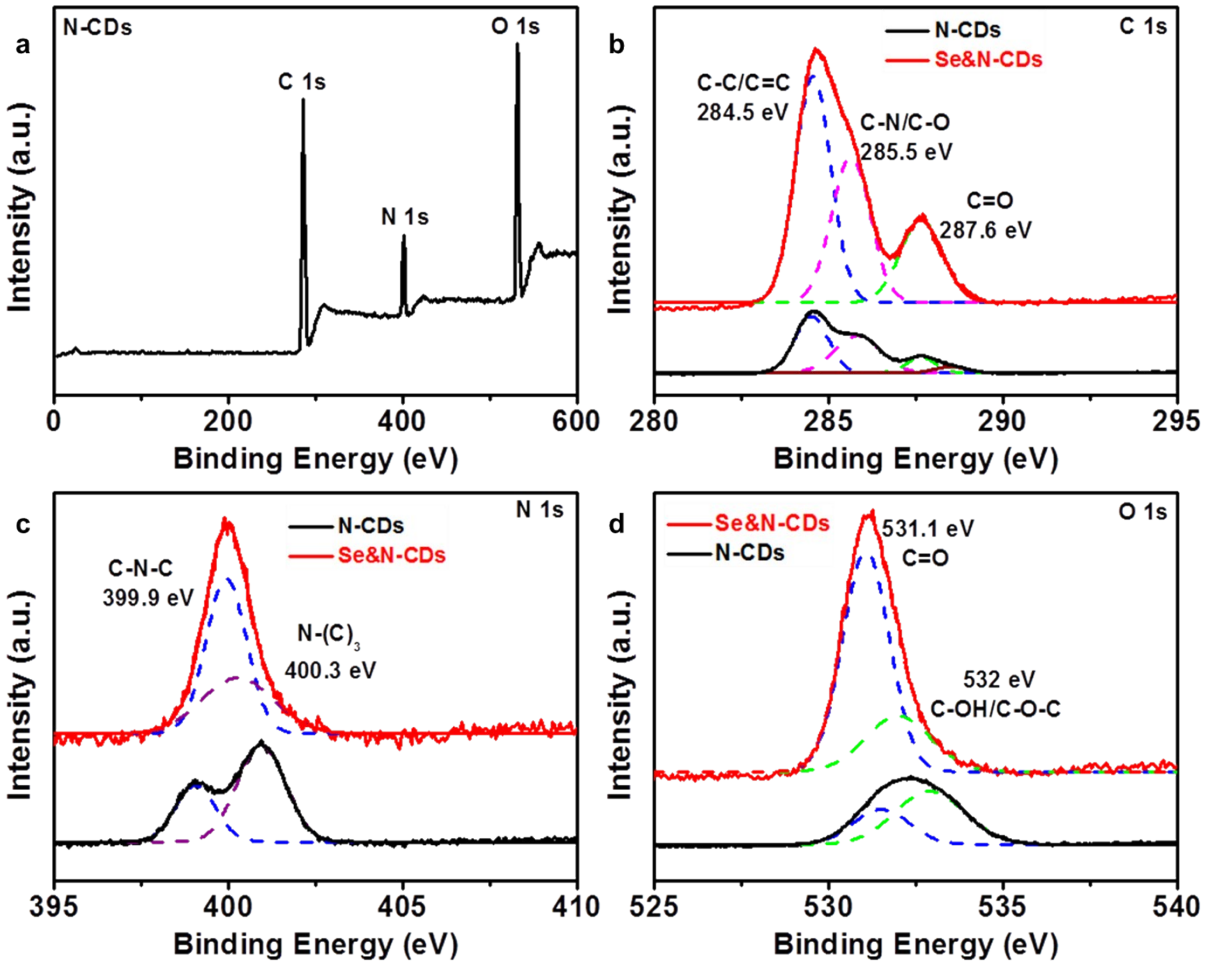

Fig. S2. (a) XPS survey spectrum of N-CDs, (b) deconvolution of high-resolution C 1s, (c) N 1s and (d) O 1s XPS spectra of N-CDs and Se&N-CDs. (The red line represents Se&N-CDs and the black line represents N-CDs.)

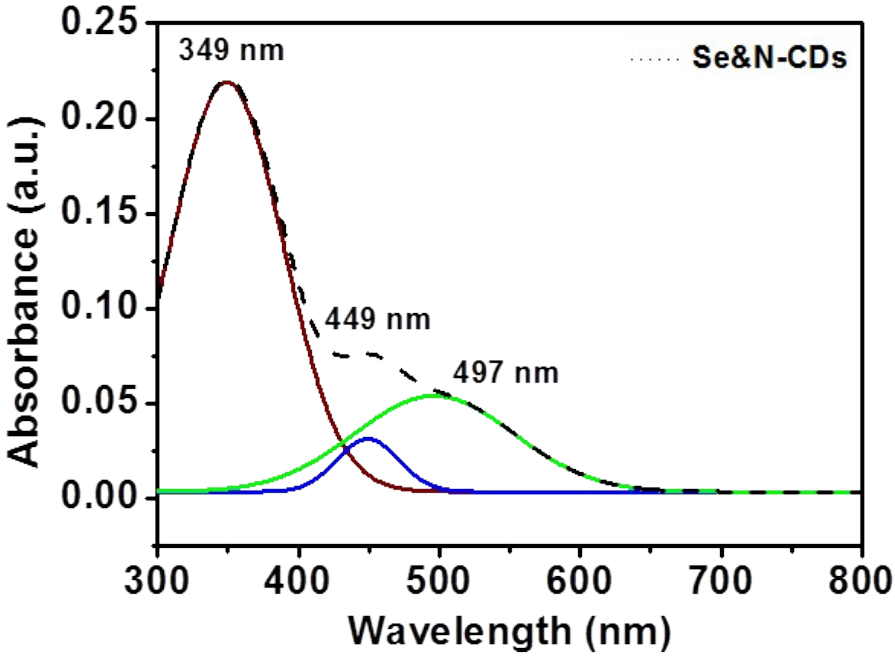

Fig. S3. Deconvolution of UV-vis absorption of Se&N-CDs.

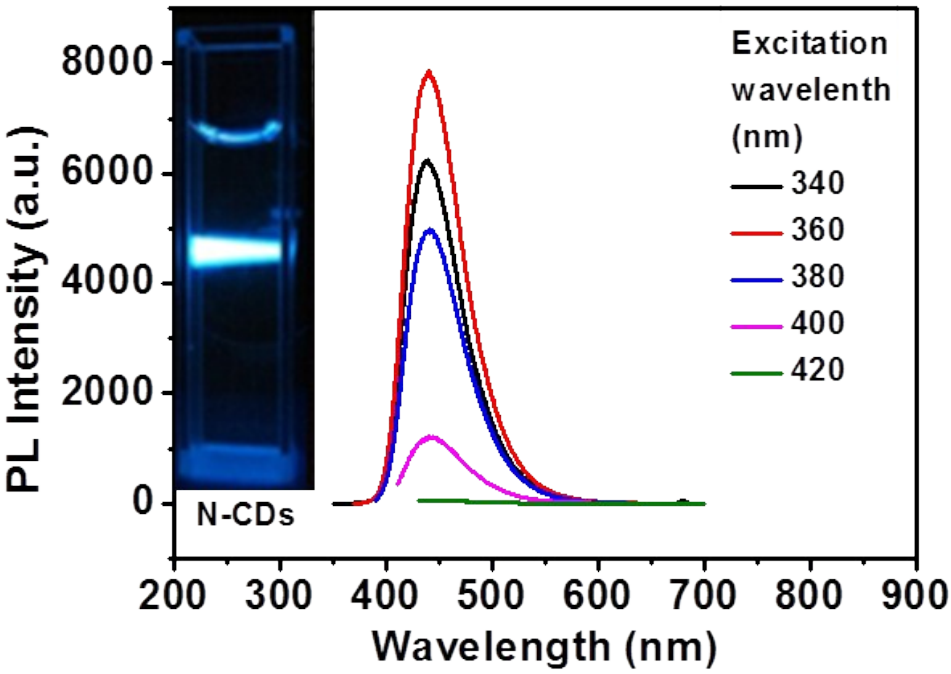

Fig. S4. PL emission spectra under different excitation wavelengths in the range of 340-420 nm (excitation wavelength interval 20 nm) of N-CDs, (the insert shows a photograph of N-CDs solution under excitation wavelength of 345 nm).

Table S1. The comparison of optical properties between N-CDs and Se&N-CDs.

Samples	QY [%]	τ_{ave} [ns]	Emission [nm]	Excitation [nm]
N-CDs	91 (blue emission)	8	445	345
Se&N-CDs	52 (green emission)	21	550	497