

Electronic Supplementary Information

One-step synthesis of chiral carbon quantum dots and their enantioselective recognition

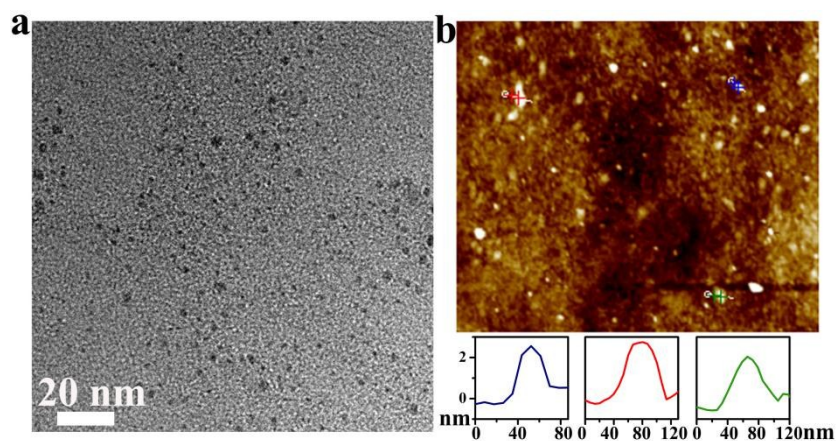


Fig. S1 (a) TEM and (b) AFM images of D-CQDs.

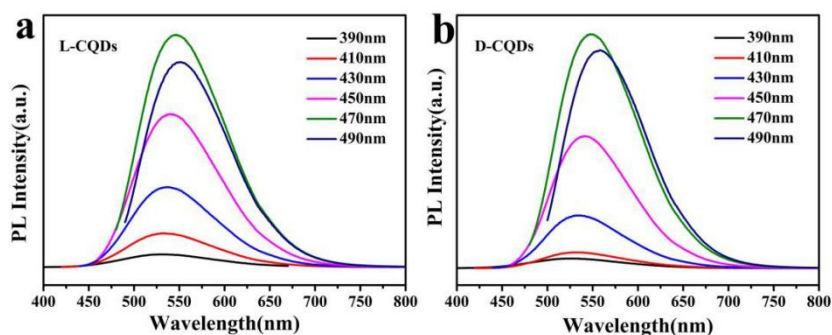


Fig. S2 Photoluminescence emission spectra of (a) L-CQDs; (b) D-CQDs with excitation wavelength from 390 nm to 490 nm.

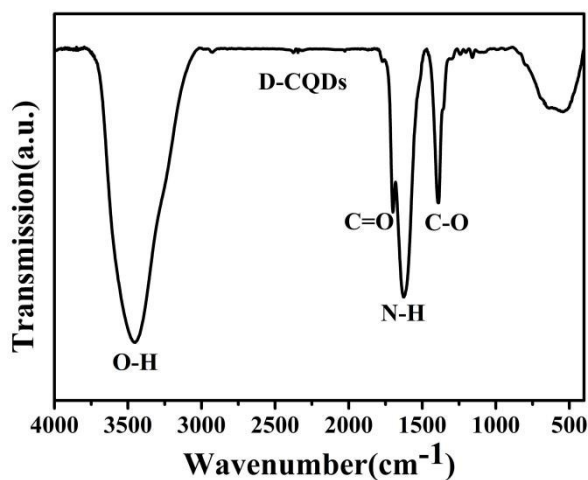


Fig. S3 FT-IR spectrum of D-CQDs.

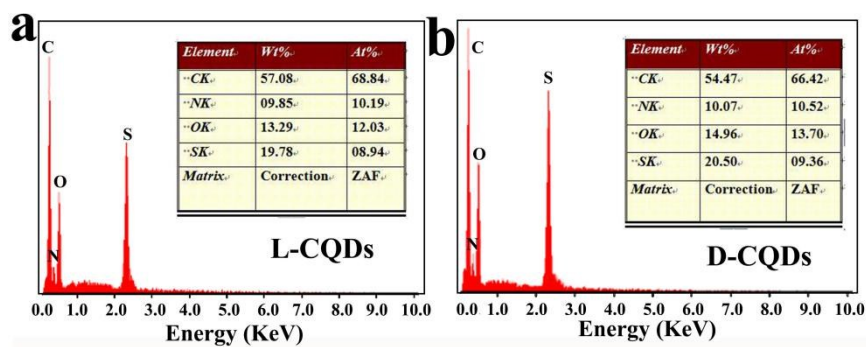


Fig. S4 EDS spectra of (a) L-CQDs and (b) D-CQDs.

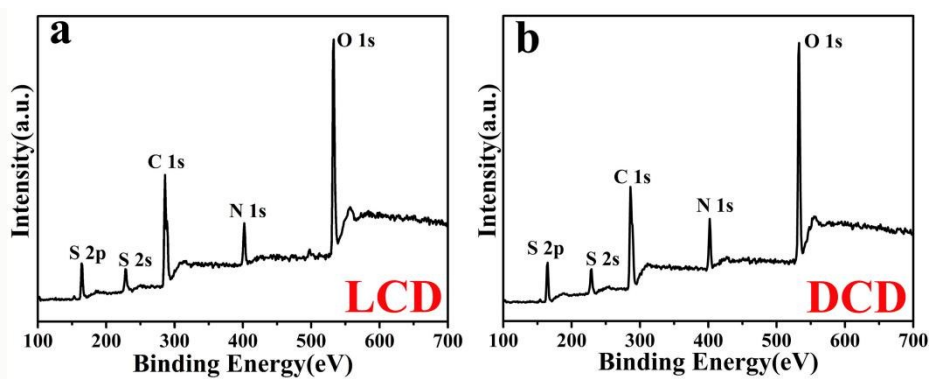


Fig. S5 Full scan XPS survey spectra of (a) L-CQDs and (b) D-CQDs.

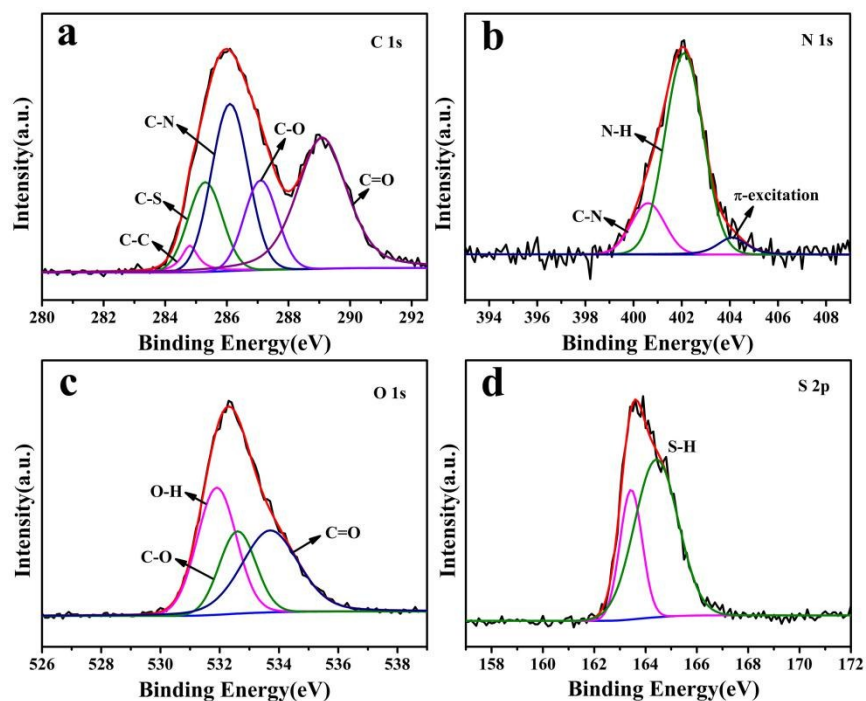


Fig. S6 High-resolution XPS spectra of (a) C 1s, (b) N 1s, (c) O 1s and (d) S 2p of D-CQDs.

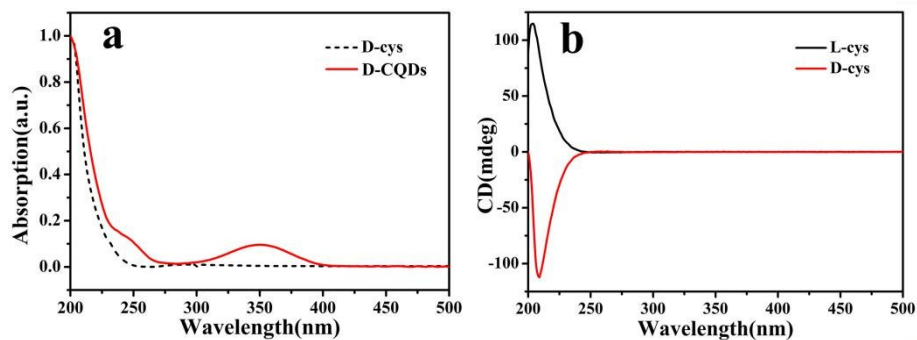


Fig. S7 (a) UV-vis absorption curves of D-cys and D-CQDs. (b) CD spectra of L-cys and D-cys (black and red lines, respectively). L-cysteine is L-cys and D-cysteine is D-cys.

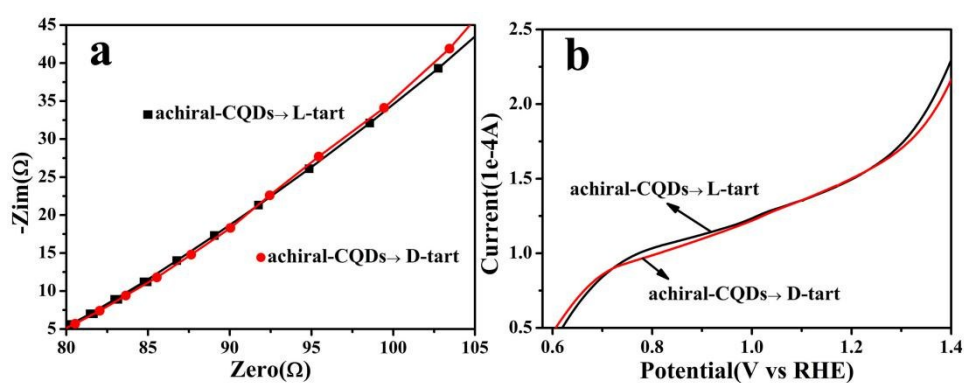


Fig. S8 EIS spectra of achiral carbon quantum dots (achiral-CQDs) (a) toward L-tart (black line) and D-tart (red line) at a scan rate of 50 mV/s in 0.5 M Na_2SO_4 . LSV curves for oxidation of L-tart and D-tart on achiral-CQDs (b) with a sweep rate of 50 mV/s in 0.5 M Na_2SO_4 .