

### Electronic Supplementary Information (ESI)

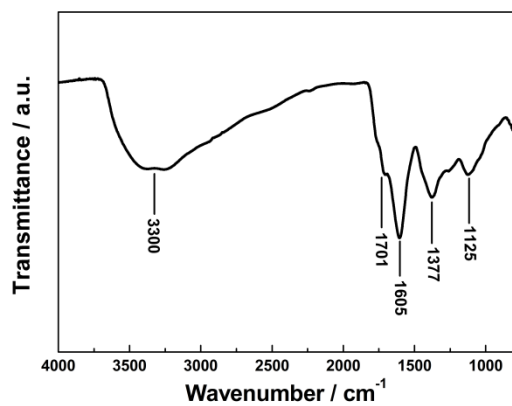


Fig. S1 FTIR spectrum of CDs.

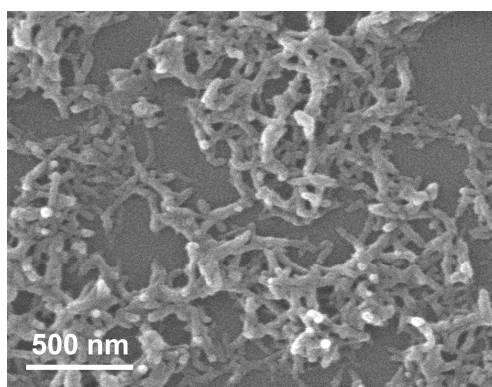


Fig. S2 SEM image of PANI.

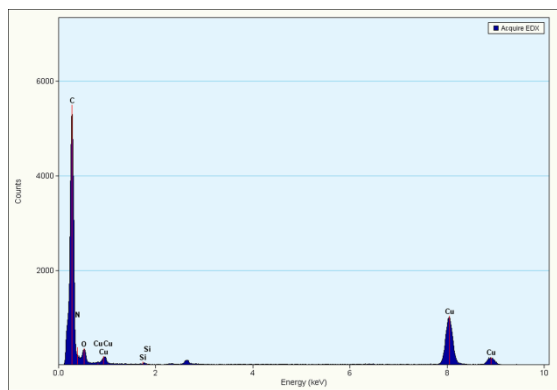


Fig. S3 EDX image of CDs-PANI.

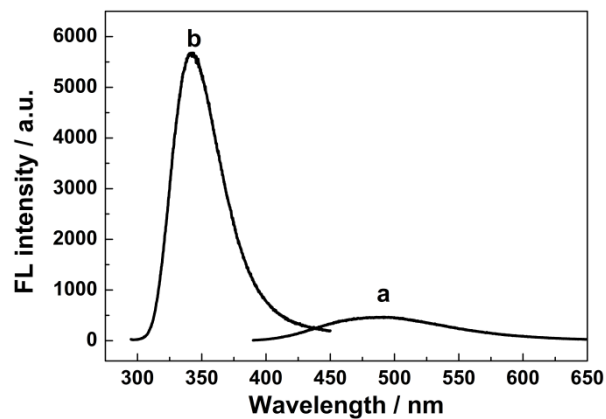


Fig. S4 Fluorescence emission spectra of CDs (a), and CDs-PANI (b) under excitation wavelength of 390 nm and 285 nm, respectively.

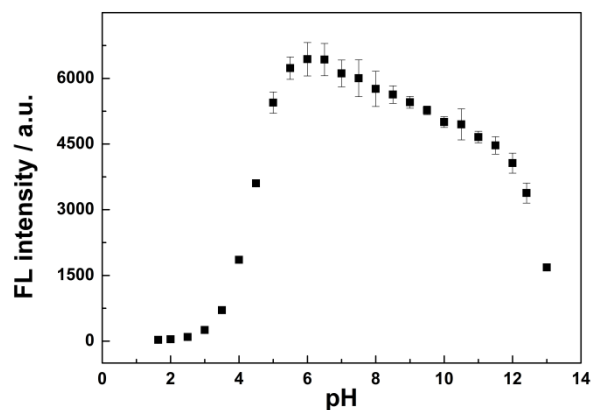


Fig. S5 pH-dependent changes in CDs-PANI composite solution emission at 342 nm, upon raising the pH from 1.60 to 13.00. The error bars represent the standard deviations of 3 measurements.

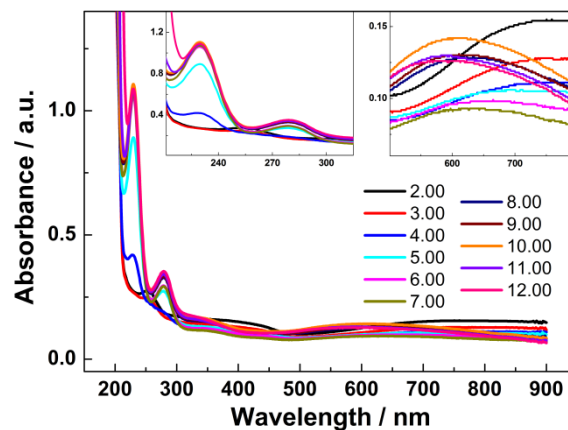


Fig. S6 The UV-vis spectra of CDs-PANI with different pH value, ranging from 2.00 to 12.00. The insets are the enlarged region of 210-350 nm and 500-800 nm, respectively.