

## Electronic Supporting Information

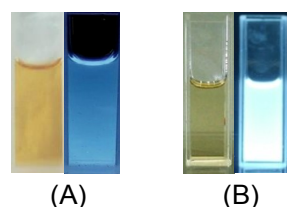
### Facile and Green approach to Prepare Carbon Dots with pH-Dependent Fluorescence for Patterning and Bioimaging

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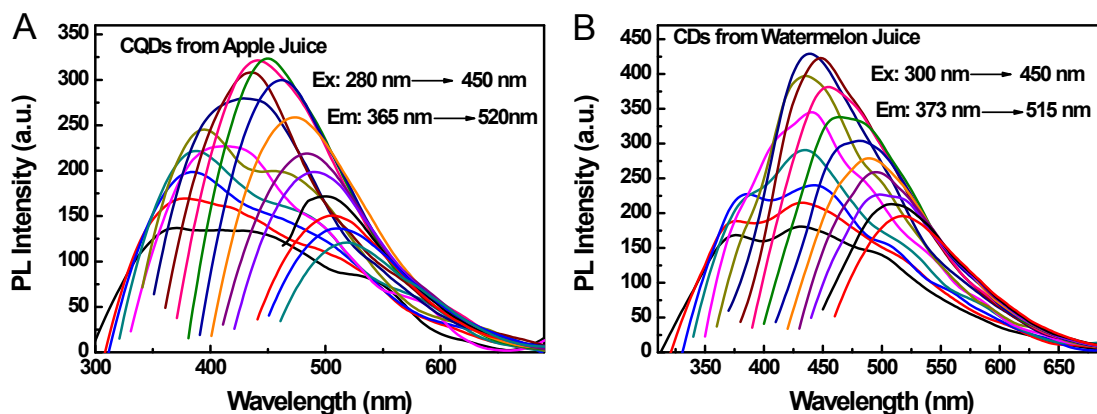
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#### Results:



**Fig. S1** The photographs of (A) CD<sub>A</sub> and (B) CD<sub>W</sub> aqueous solutions under daylight and UV lamp (365 nm).



**Fig. S2** The PL spectra of (A) CD<sub>A</sub> and (B) CD<sub>W</sub> to indicate their excitation dependent feature (excitation wavelength: in 20 nm increment starting from 280 nm to 460 nm).

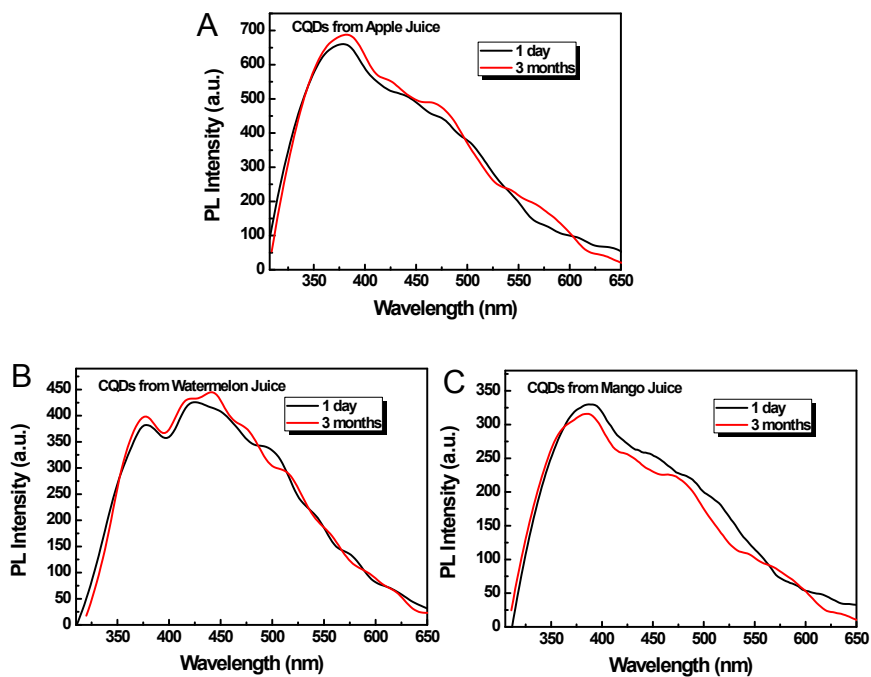


Fig. S3 PL spectra of three CDs samples stored for one day and three months.

After three months, the CDs' fluorescence peak positions remained unchanged, and their fluorescence intensity fluctuated slightly.

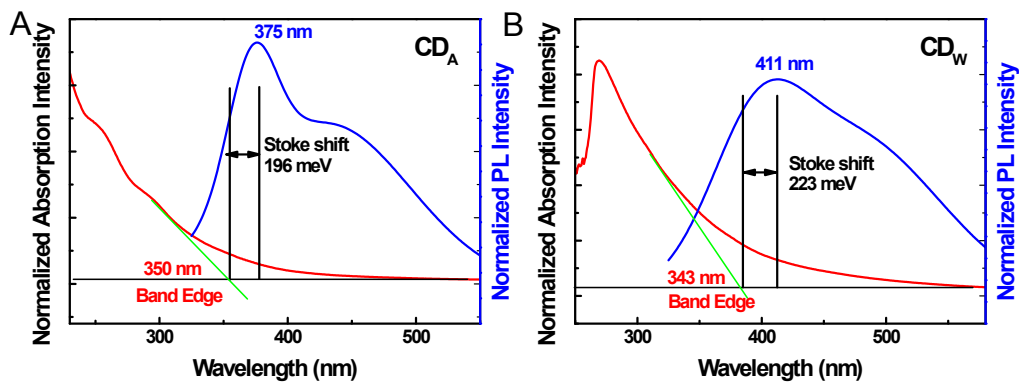


Fig. S4 The absorption and PL spectra of (A)  $CD_A$  and (B)  $CD_W$  solution to show the stoke shift.

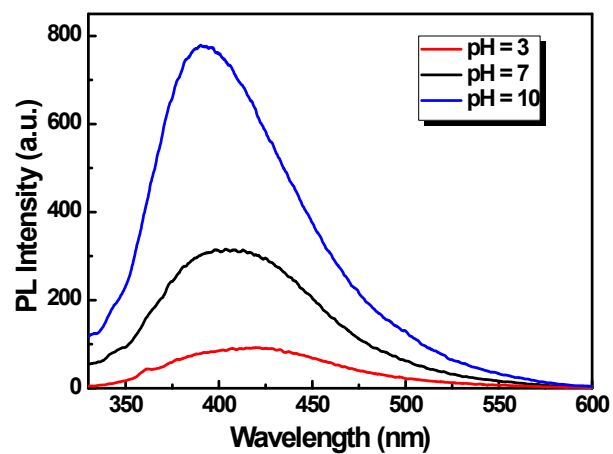


Fig. S5 PL intensity of  $CD_A$  prepared under different pH conditions.

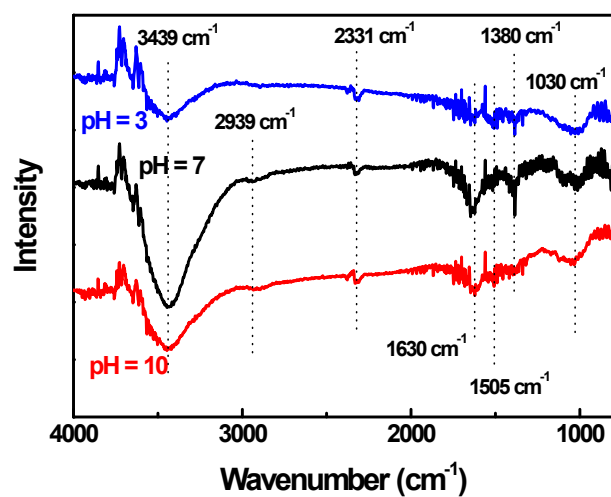


Fig. S6 The FTIR of  $CD_A$  prepared under different pH values.

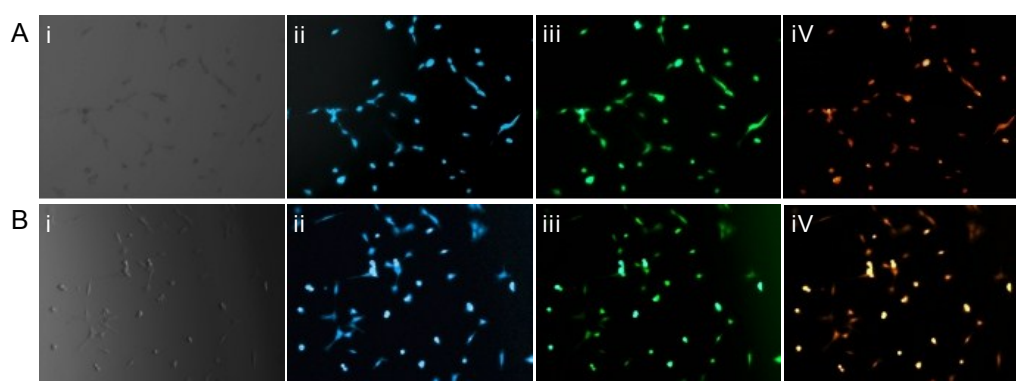


Fig. S7 Osteoblasts after incubation with (A)  $CD_W$  and (B)  $CD_M$  at 37 °C for 24 h under (i) bright field, by excitation at (ii) 405 nm, (iii) 488 nm and (iv) 532 nm.