

## Electronic Supplementary Material

# Facile construction of carbon dots via acid catalytic hydrothermal method and their application for target imaging of cancer cells

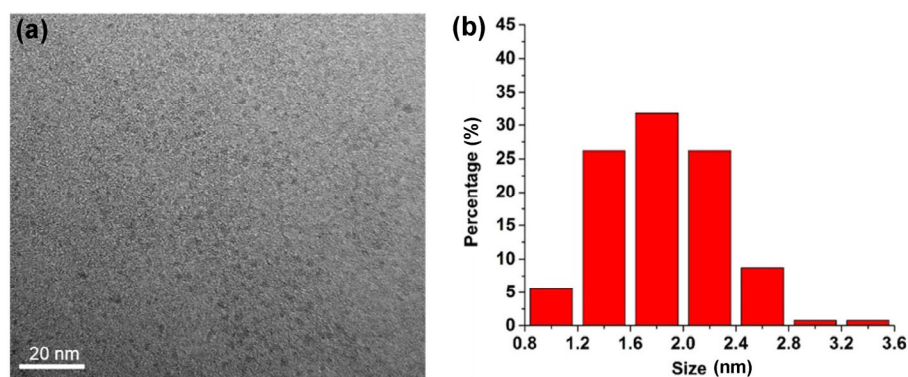
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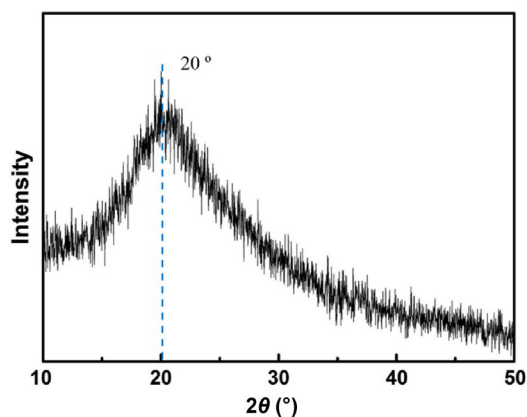
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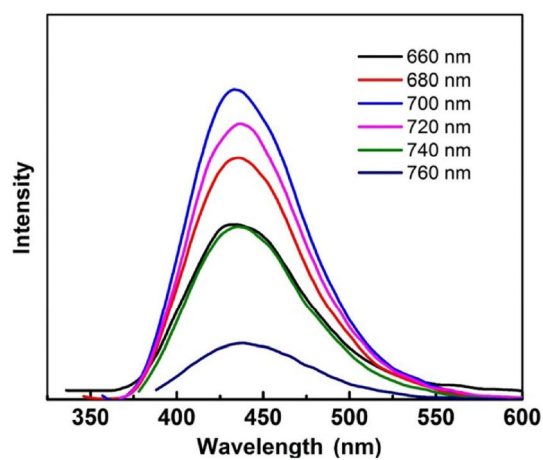


**Figure S1** TEM image of CDs synthesized in neutral solution at 200 °C for 2h (a) and size distribution of CDs (b).

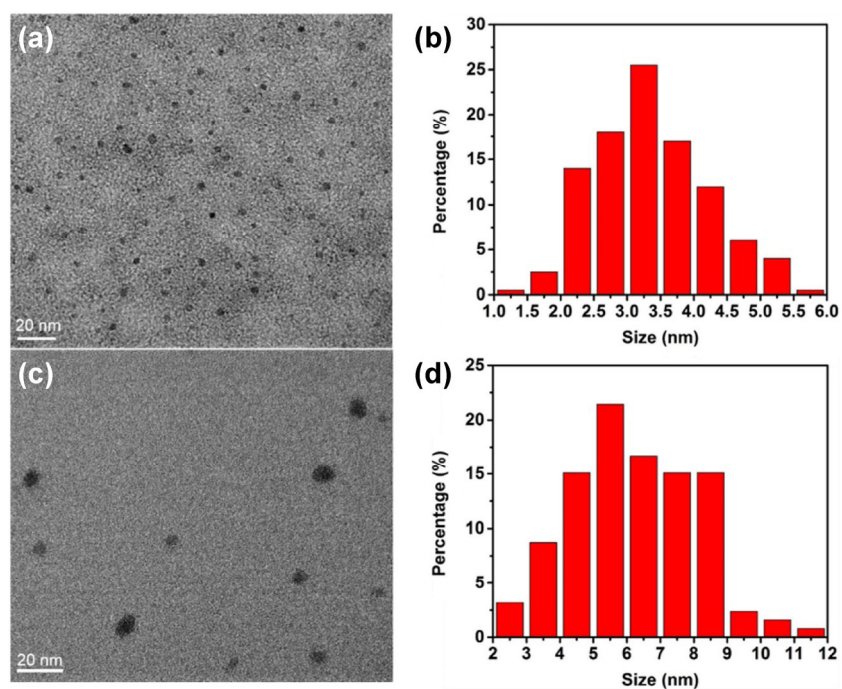


**Figure S2** XRD pattern of ACDS.

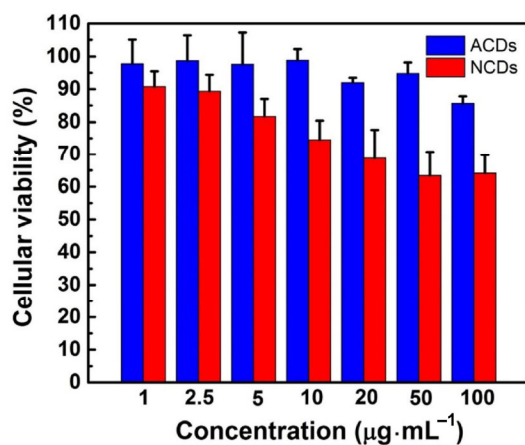
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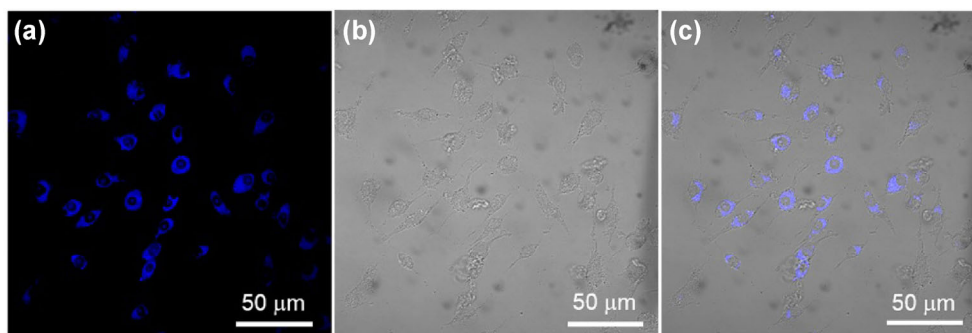
**Figure S3** Up-conversion PL spectra of ACDs. The excitation wavelengths start from 660 to 760 nm with a 20 nm increment.



**Figure S4** TEM images ((a) and (c)) and size distribution ((b) and (d)) of CDs in pH = 1 (top) and pH = 13 (bottom) aqueous solution, respectively.



**Figure S5** Raw cell viabilities after incubating with ACDs and NCDs for 24 h and quantitative assays by standard MTT method.



**Figure S6** Confocal fluorescent images of Raw cells incubated with the presence of ACDs under 408 nm excitation (a), under bright filed (b), and merge image (c).