

Supporting Information for:

**Sub-Gram-Scale Synthesis of Biomass Waste Derived  
Fluorescent Carbon Dots in Subcritical Water for  
Bioimaging, Sensing and Solid-State Patterning**

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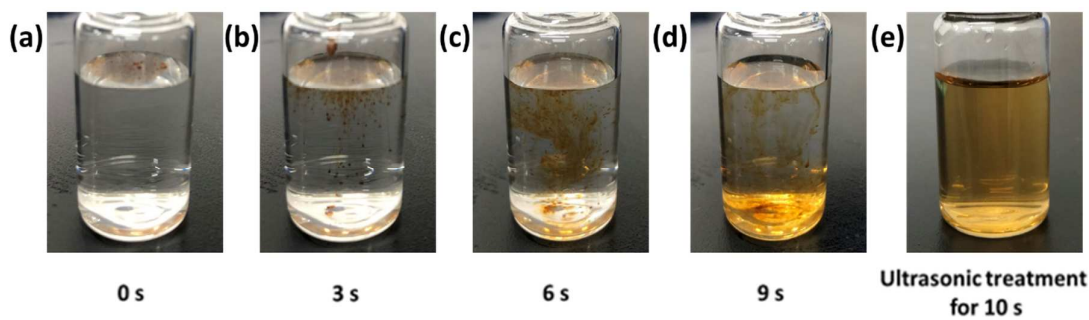
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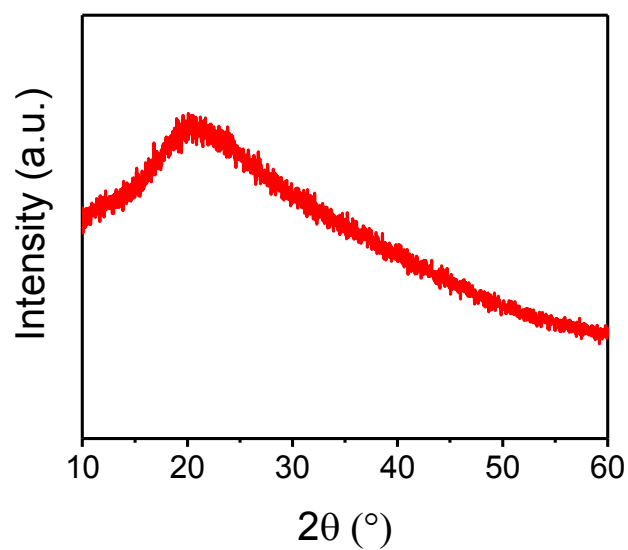
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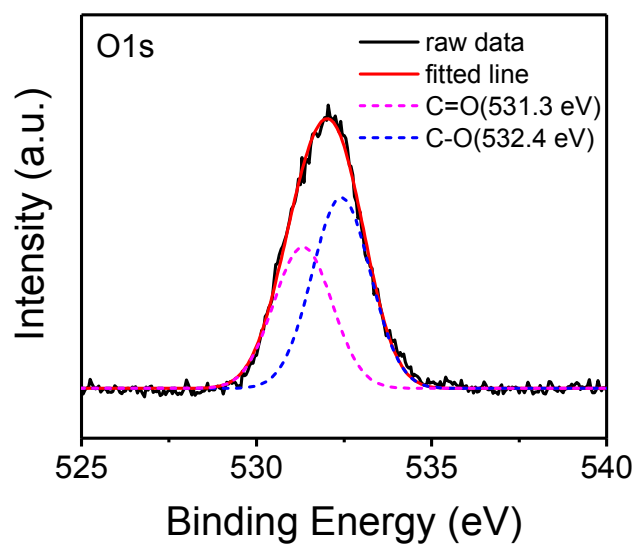
**Figure S1.** The product of the preparation of FCDs in one batch reaction.



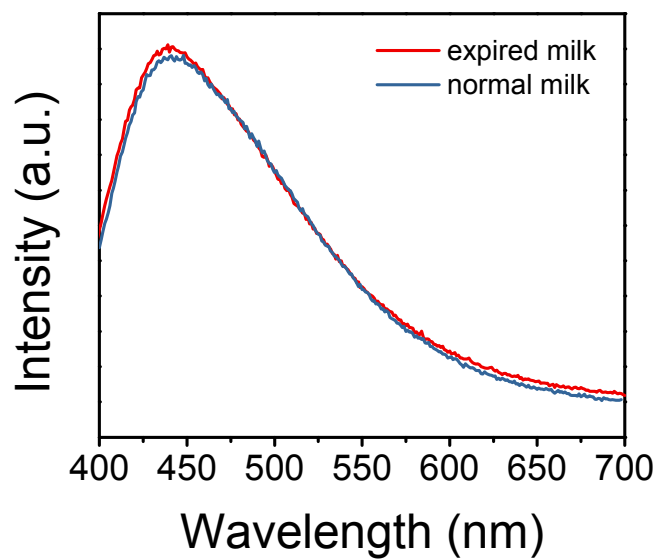
**Figure S2.** The photograph of the water solubility test of the FCDs. It shows the dissolution process of adding the FCDs to the water solution without any treatment (a-d) and with the ultrasonic treatment for 10s (e)



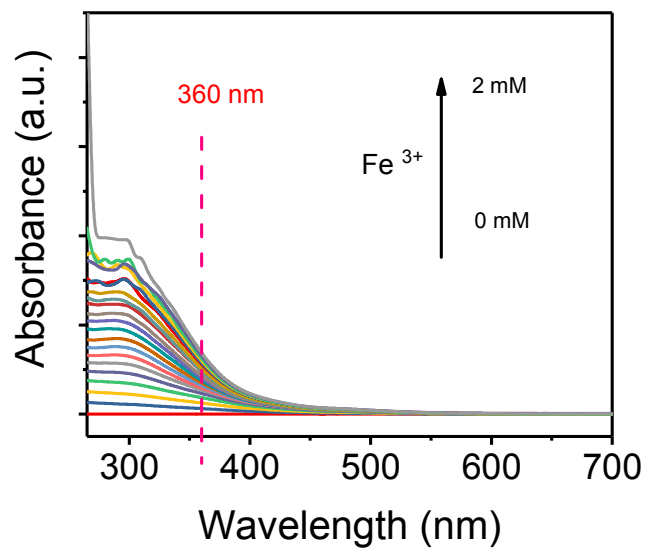
**Figure S3.** XRD pattern of the FCDs



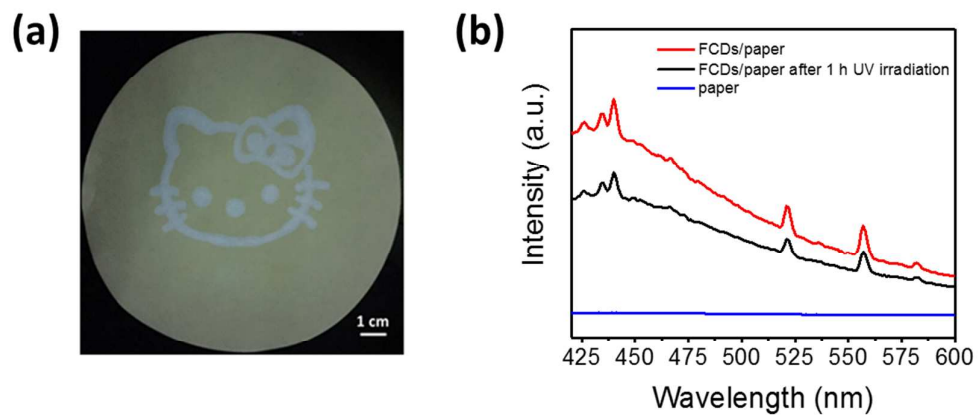
**Figure S4.** High-resolution XPS O1s spectra of the FCDs



**Figure S5.** Fluorescent spectra of the FCDs obtained by normal milk and expired milk



**Figure S6.** UV-visible absorption spectra with different concentrations of Fe<sup>3+</sup>



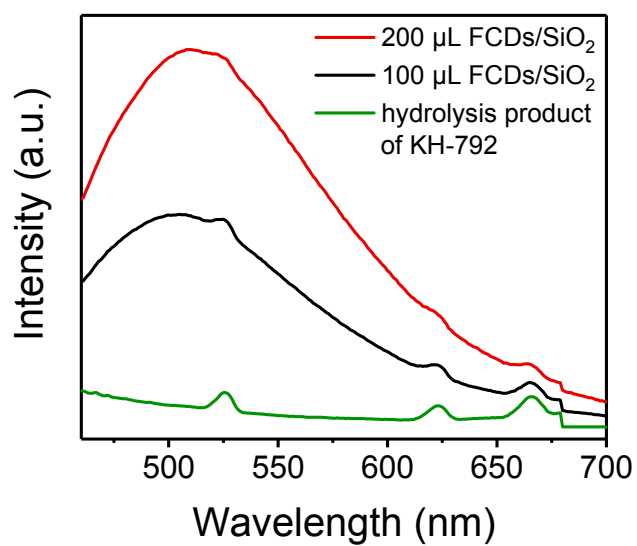
**Figure S7.** (a) Fluorescence photograph and (b) fluorescence emission spectra of FCDs patterns after continuous irradiation under the UV lamp (365 nm) for 1 h.



**Figure S8.** The photograph of FCDs powders under a 365 nm UV lamp excitation.



**Figure S9.** The photograph of hydrolysis product of KH-792.



**Figure S10.** Fluorescence emission spectra of FCDs/SiO<sub>2</sub> nano composite powders with different concentrations of FCDs ( $\lambda_{\text{ex}} = 410 \text{ nm}$ ).