

Supporting Information

Carbon dots promote the growth of ZIF-8 crystals to obtain fluorescent powder and their application for latent fingerprints imaging

Guangming Li^{a,b}, Xun Wang^a and Jilin Zhang^{*a,b}

^aState Key Laboratory of Rare Earth Resource Utilization, Changchun Institute of Applied Chemistry, Changchun 130022, P. R. China

^bUniversity of Science and Technology of China, Hefei 244100, P. R. China

E-mail: zjl@ciac.ac.cn

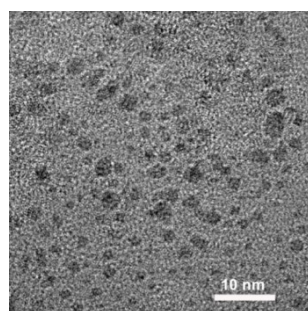


Figure S1. TEM image of the CDs.

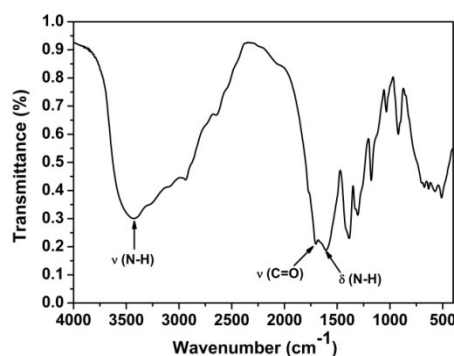


Figure S2. FTIR spectrum of the CDs.

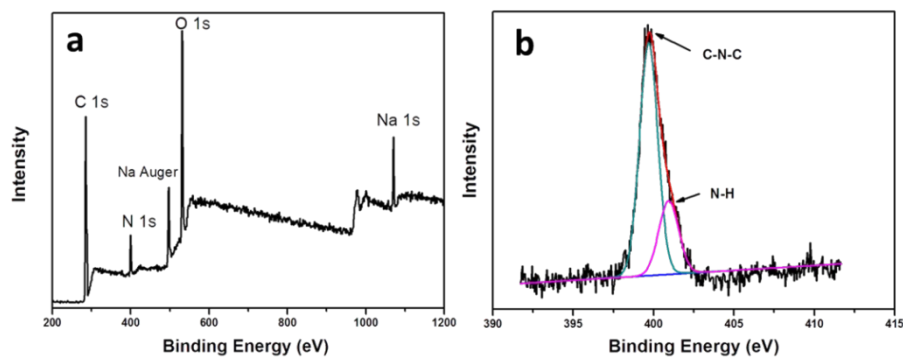


Figure S3. a) XPS survey spectrum and b) N1s high-resolution XPS spectra of the CDs.

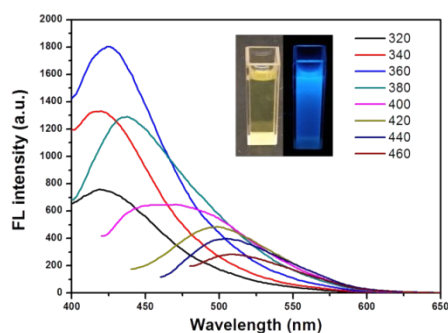


Figure S4. Fluorescence emission spectra of the CD under different excitation wavelengths and these CDs under natural light (left) and 365 nm UV light (right) illumination (inset photographs).

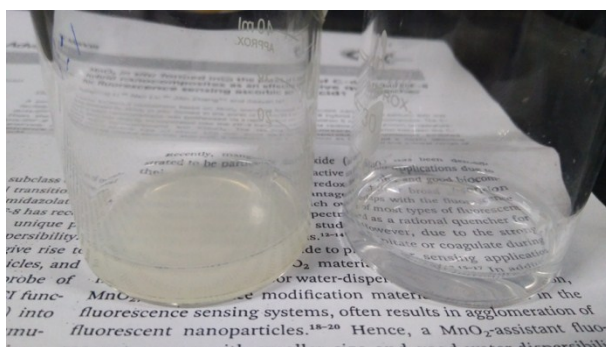


Figure S5. Photographs of 2-methylimidazole and zinc acetate dehydrate mixtures in the presence of CDs (left) and in the absence of CDs (right).

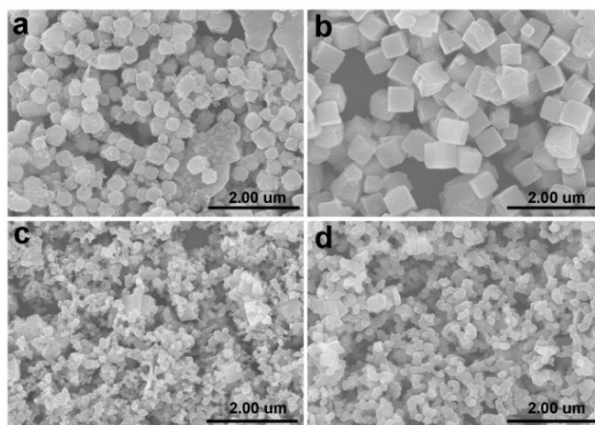


Figure S6. SEM images of CDs/ZIF-8 fluorescent powders prepared in the presence of a) 2 mg, b) 4 mg, c) 8 mg, and d) 16 mg CDs.