

Applications of hydrothermal synthesis of *Escherichia coli* derived carbon dots in vitro and in vivo imaging and *p*-nitrophenol detection

Kunhao Qin^{a, b#}, Dongfang Zhang^{b#}, Yafang Ding^b, Xiaodan Zheng^b, Yingying Xiang^c, Jianhao Hua^b,
Qi Zhang^b, Xiuling Ji^b, Bo Li^d, Yunlin Wei^{b*}

^a Post-doctoral Research Station in Geological Resources and Geological Engineering, Faculty of Land Resource Engineering, Kunming University of Science and Technology, Kunming 650500, China

^b Faculty of Life Science and Technology, Kunming University of Science and Technology, Kunming 650500, China

^c Department of Stomatology, Yan'an Hospital Affiliated to Kunming Medical University, Kunming 650031, China

^d Faculty of Land Resource Engineering, Kunming University of Science and Technology, Kunming 650500, China

#. These authors have contributed equally to this work.

*. Corresponding author: weiyunlin18@163.com.

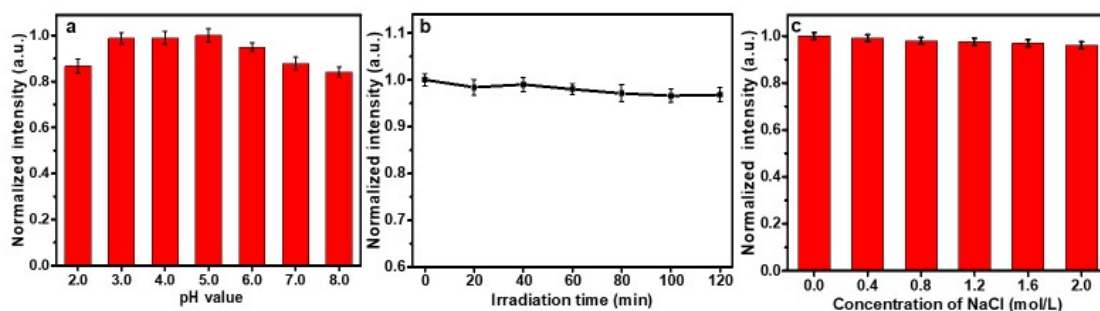


Fig. S1 (a) The fluorescence intensity of CDs-WT varying with the sample pH value from 2 to 8. (b) Normalized fluorescence intensity of CDs-WT under UV (365 nm) irradiation for 2 h. (c) Normalized fluorescence intensity of CDs-WT in different NaCl concentrations ranging from 0 to 2 M.

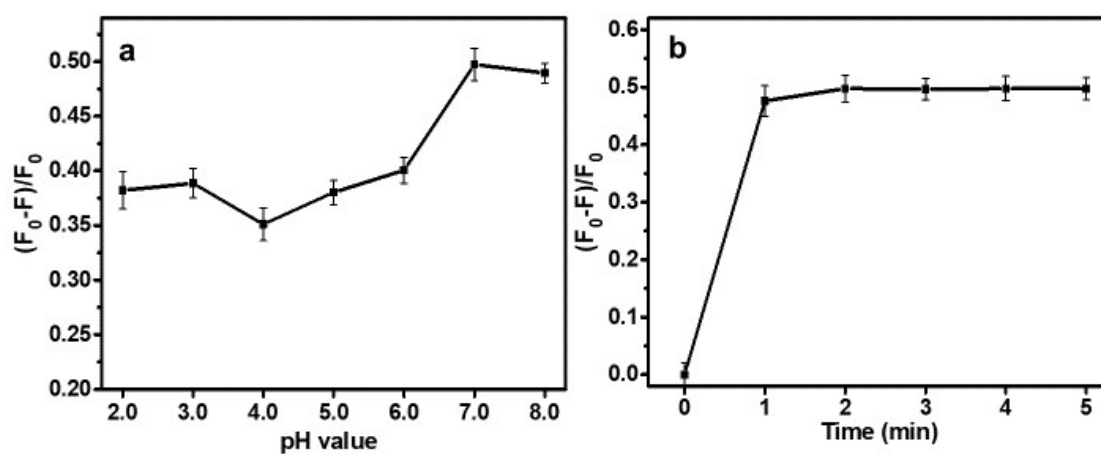


Fig. S2 Effect of (a) sample pH value and (b) reaction time on the detection of *p*-NP with CDs-WT.

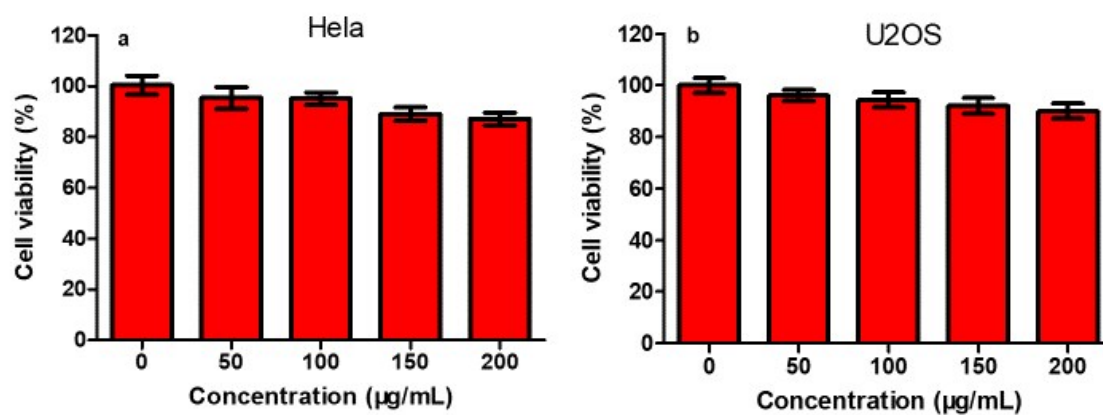


Fig. S3 Helo (a) and U2OS (b) cell viability from MTT assays with different CDs-WT concentration after 24 h incubation

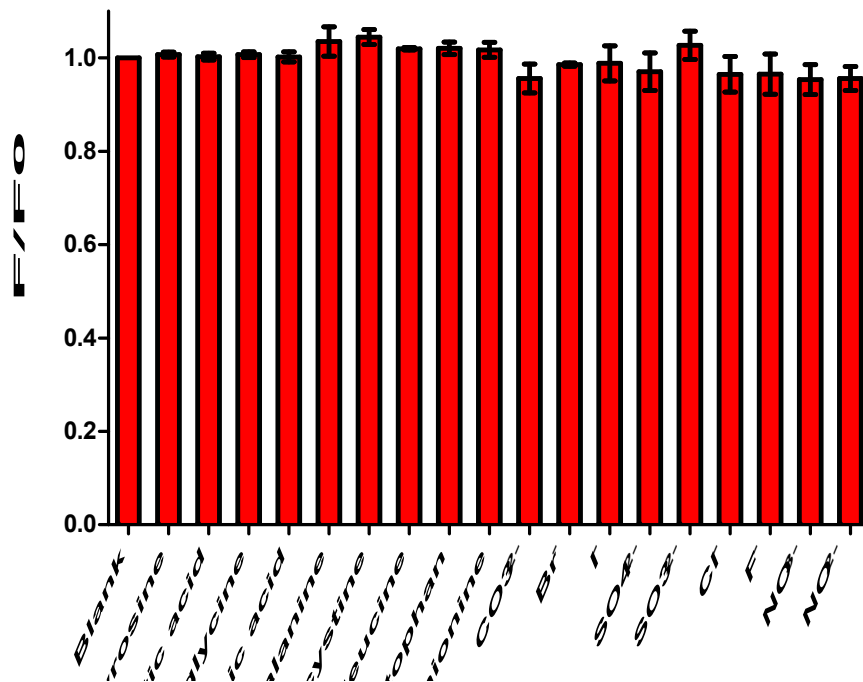


Fig. S4 Fluorescence quenching efficiency of amino acids (30 μ M) and common anions (30 μ M) toward CDs-WT.