

Carbon dot with positive surface charge from tartaric acid and m-aminophenol for selective killing Gram-positive bacteria

Supporting Information

Huibo Wang,^{a,b,§} Fang Lu,^{a,§,*} Chongqing Ma,^b Yurong Ma,^b Mengling Zhang,^b Bo Wang,^b Yue Zhang,^a Yang Liu,^{b,*} Hui Huang,^{b,*} Zhenhui Kang^b

^a*School of Life Sciences, Beijing University of Chinese Medicine, Beijing, 100029, China.*

^b*Institute of Functional Nano & Soft Materials (FUNSOM), Jiangsu Key Laboratory for Carbon-Based*

Functional Materials & Devices, Soochow University, 199 Ren'ai Road, Suzhou, 215123, Jiangsu, PR

China.

E-mail: lufang@bucm.edu.cn, yangl@suda.edu.cn. hhuang0618@suda.edu.cn.

H.B. Wang and F. Lu contributed equally to this work.

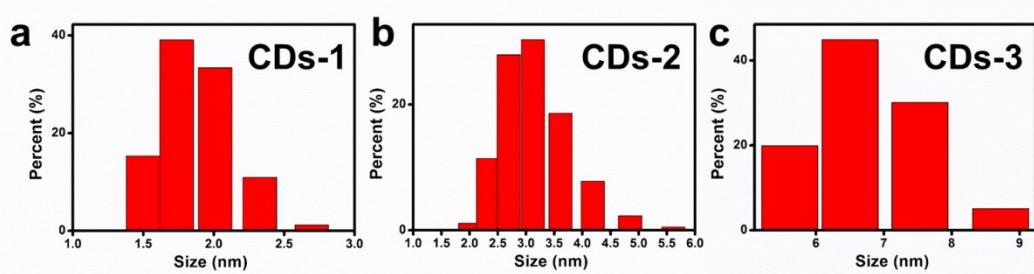


Fig. S1 Size distributions of CDs-1 (a), CDs-2 (b) and CDs-3 (c).

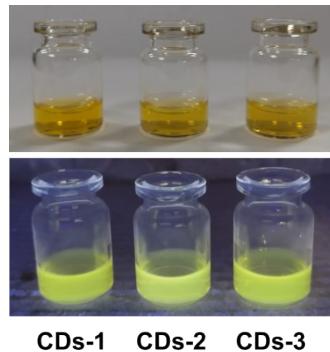


Fig. S2 Photographs of CDs-1, CDs-2 and CDs-3 under daylight and ultraviolet lamp (365 nm), respectively.

Atomic ratio (%)	CDs-1	CDs-2	CDs-3
C	56.66	60.12	65.01
N	7.08	6.56	6.01
O	36.26	33.33	28.98

Table 1. Atom ratio of three elements involving carbon, nitrogen and oxygen in CDs-1, CDs-2 and CDs-3.

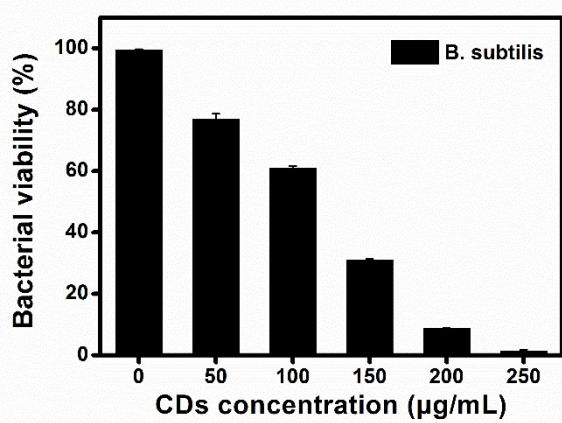


Fig. S3 Bacterial viability of *B. subtilis* treated with different concentrations of CDs-3.

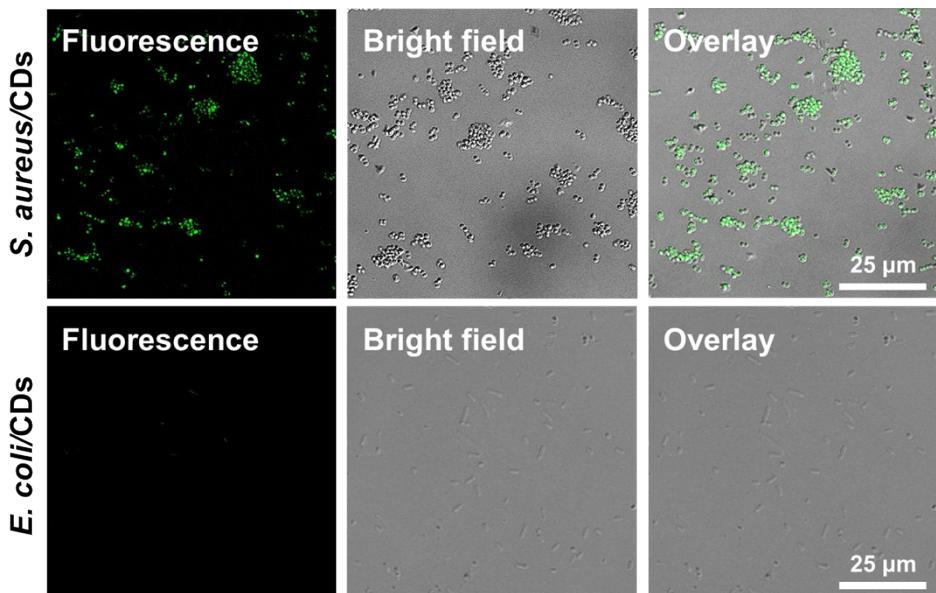


Fig. S4 Confocal images of *S. aureus* and *E. coli* incubated with CDs-3.