

**Selective inactivation of Gram-negative bacteria by carbon dots
derived from natural biomass-*Artemisia argyi* leaves**

Supporting Information

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Determination of MIC and MBC for ACDs.

To obtain the MIC, in a 96-well, for each well 100 μL of ACDs solution (PBS, between 0 and 200 $\mu\text{g mL}^{-1}$) was applied to 100 μL of a *E. coli*, KRE *E. coli*, ARE *E. coli*, *P. aeruginosa*, *P. vulgaris*, *S. aureus* and *B. subtilis* suspension in PBS (10^5 bacteria mL^{-1}), respectively. After being incubated for 24 h at 37 °C, the MIC values were obtained since the lowest ACDs concentration at which bacterial growth was absent. For the MBC, aliquots of bacterial suspensions with different ACDs concentrations (between 0 and 200 $\mu\text{g mL}^{-1}$) were being incubated for 24 h at 37 °C. The MBC values were obtained by agar plating counting yielding no visible growth of bacteria on LB agar plates after being incubated for 24 h at 37 °C, and the lowest concentration at which no colony was found as the MBC values.

Table S1. Minimal Inhibitory Concentrations (MIC) and Minimal Bactericidal Concentrations (MBC) of *E. coli*, KRE *E. coli*, ARE *E. coli*, *P. aeruginosa*, *P. vulgaris*, *S. aureus* and *B. subtilis* against ACDs.

| ACDs | MIC ($\mu\text{g/mL}$) | MBC ($\mu\text{g/mL}$) |
|----------------------|--------------------------|--------------------------|
| <i>E. coli</i> | 100 | 150 |
| KRE <i>E. coli</i> | 100 | 150 |
| ARE <i>E. coli</i> | 100 | 150 |
| <i>P. aeruginosa</i> | 150 | 150 |
| <i>P. vulgaris</i> | 150 | 150 |
| <i>S. aureus</i> | >200 | >200 |
| <i>B. subtilis</i> | >200 | >200 |

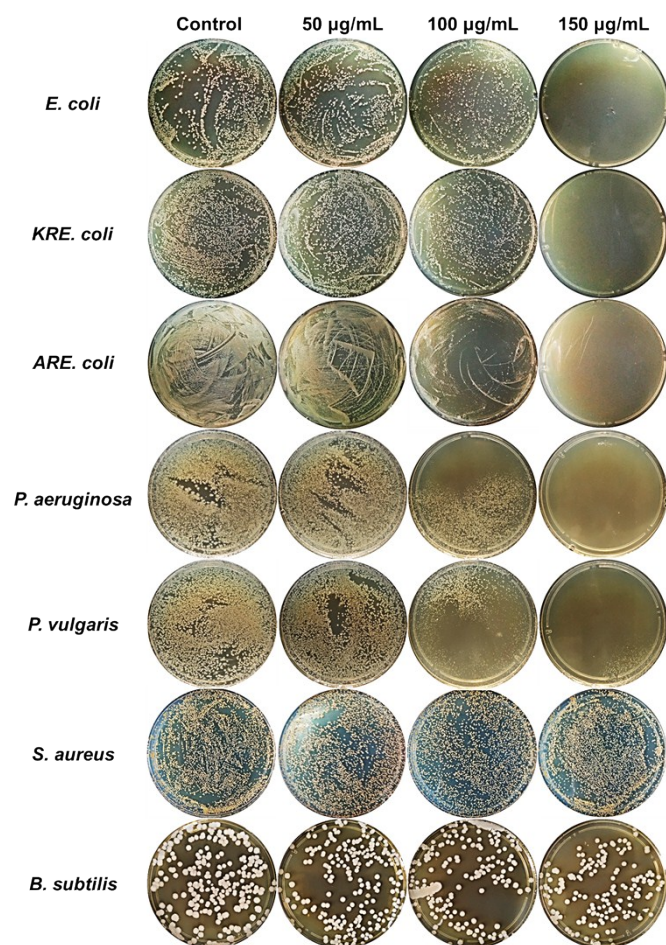


Fig. S1 Photographs of LB agar plates of *E. coli*, KRE *E. coli*, ARE *E. coli*, *P. aeruginosa*, *P. vulgaris*, *S. aureus* and *B. subtilis* incubated with different concentrations of ACDs. before the notes and references.

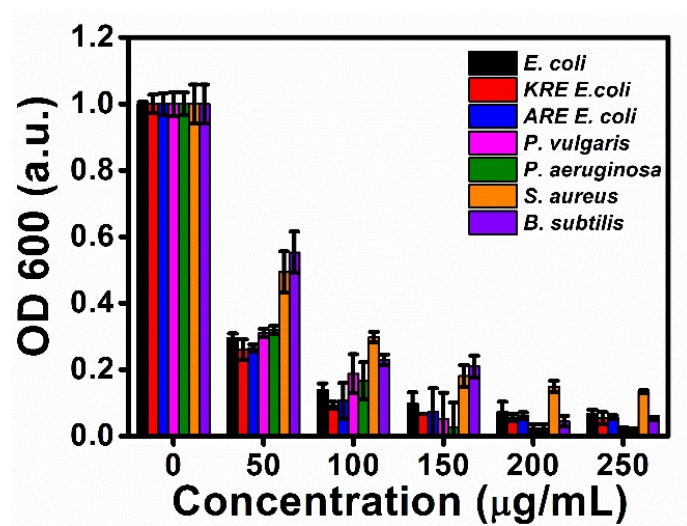


Fig. S2 Bacteria growth of *E. coli*, *KRE E. coli*, *ARE E. coli*, *P. aeruginosa*, *P. vulgaris*, *S. aureus* and *B. subtilis* in liquid medium measured by OD600.