

Supplementary Materials: P-Doped Carbon Quantum Dots with Antibacterial Activity

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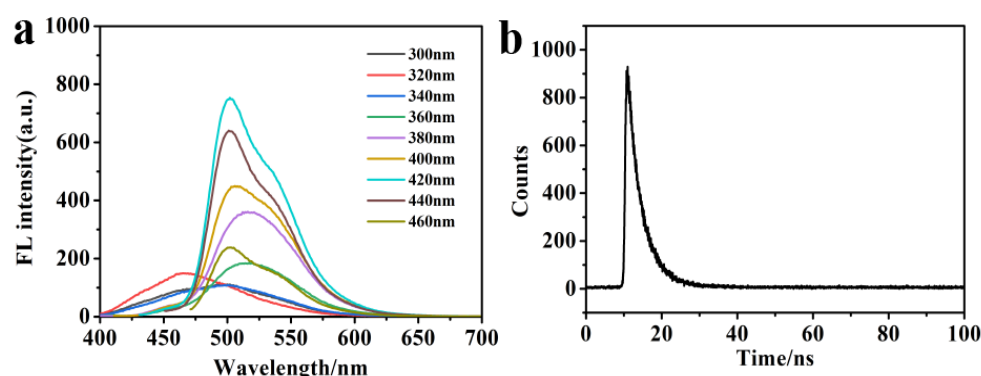


Figure S1. (a) Fluorescent emission spectra of P-doped CQDs under different excitation wavelengths from 300 to 460 nm. (b) Fluorescence lifetime of P-doped CQDs.

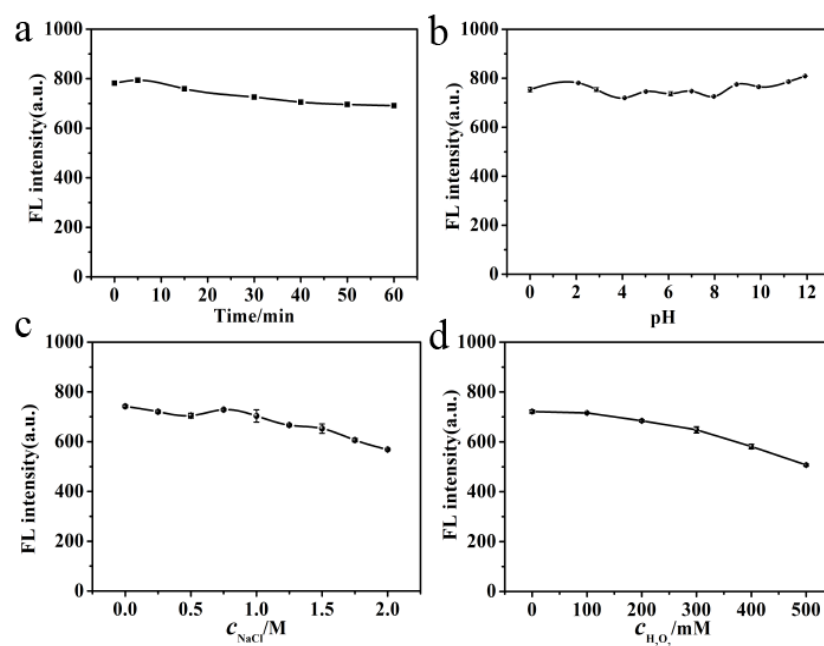


Figure S2. Fluorescent spectra of P-doped CQDs in different incubation time (a), pH solutions (b) and different concentration of NaCl (c), H_2O_2 (d).

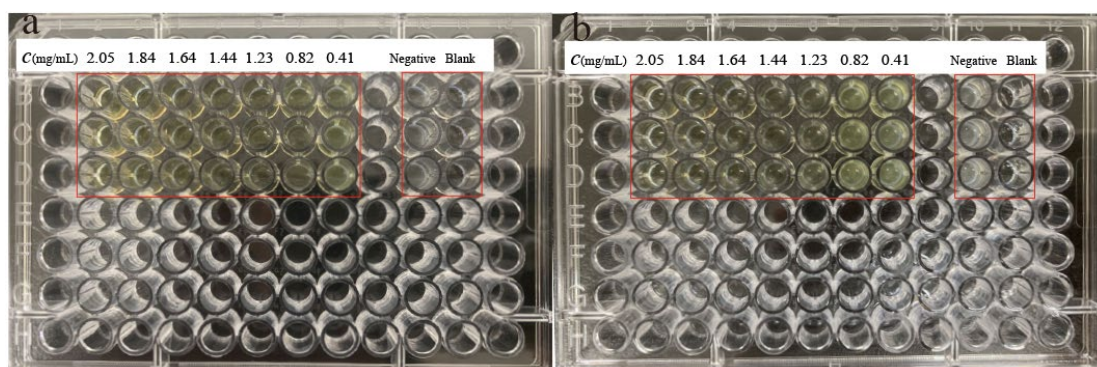


Figure S3. The antibacterial ability of P-doped CQDs on *E. coli* (a) and *S. aureus* (b).

Table S1. OD values of *E. coli* treated with different concentrations of P-doped CQDs.

c_{CQDs} (mg/mL)	2.05	1.84	1.64	1.44	1.23	0.82	0.41	Negative group	Blank group
OD	0.116	0.101	0.089	0.084	0.072	0.178	0.226	0.480	0.047
	0.110	0.099	0.087	0.085	0.074	0.112	0.261	0.452	0.044
	0.108	0.092	0.092	0.087	0.070	0.139	0.221	0.470	0.045

Table S2. OD values of *S. aureus* treated with different concentrations of P-doped CQDs.

c_{CQDs} (mg/mL)	2.05	1.84	1.64	1.44	1.23	0.82	0.41	Negative group	Blank group
OD	0.099	0.082	0.070	0.061	0.223	0.489	0.501	0.574	0.043
	0.102	0.087	0.063	0.060	0.229	0.447	0.580	0.475	0.041
	0.095	0.088	0.061	0.064	0.202	0.437	0.521	0.614	0.043