Various antibacterial mechanisms of biosynthesized copper oxide

nanoparticles against soil-borne Ralstonia solanacearum

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Figure S1 The high-resolution XPS scan spectrum over C1s (A) and O1s (B) spectral region of CuONPs.



Figure. S2 Zeta-potential of as-prepared CuONPs in B culture medium of pH=4, 5, 6, 7, 8, 9.



Figure S3 Disease occurence of untreated and different concentration of CuONPs-treated tobacco plants during 20 days growing period after inoculation

Table S1. The viability of *R. solanacearum* cell when exposure to different concentrations of CuONPs

Sample	Concentration (µg/mL)	Viability (%)
Control	0	
	50	92.03
CuONPs	125	49.48
	250	0