

Supplementary Material

Analytical investigation of *Cymbopogon citratus* and exploiting the potential of developed silver nano-particle against the dominating species of pathogenic bacteria

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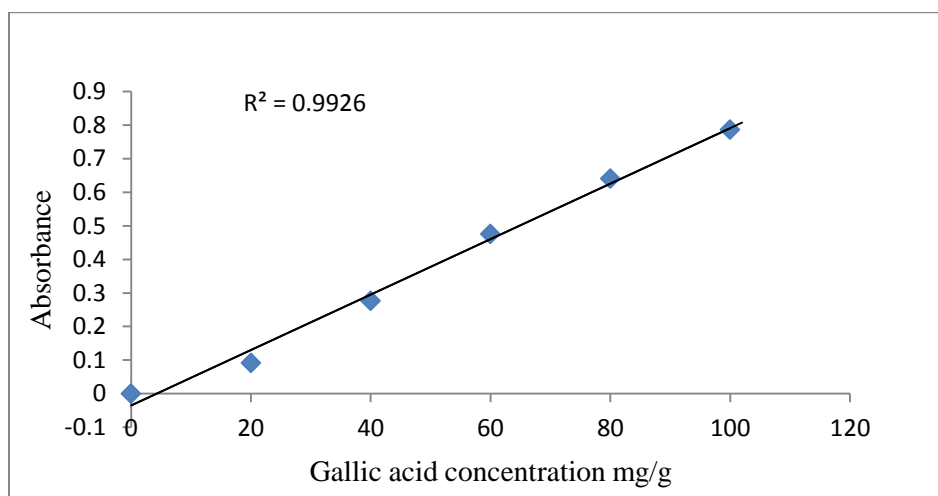


Figure S1 Folin-Ciocalteu gallic acid standard curve.

Table S1 Mean values of zone of inhibition in various plant extracts through agar disc-diffusion method.

Test organism	Zone of Inhibition (mm)					
	Plants Extract (100 µg/ml)					
	A	B	C	D	E	F
<i>Bacillus cereus</i>	1.2±0.12	2.2±0.6	3.5±0.12	1.4±0.11	1.3±0.1	10.23±0.08

<i>Bacillus licheniformis</i>	1.4±0.4	3.2±0.11	2.1±0.23	1.1±0.12	1.5±0.5	13.1±0.3
<i>Escherichia coli</i>	3.4±0.44	5.2±0.34	5.4±0.5	4.2±0.33	2.5±0.4	15.2±0.5
<i>Pseudomonas aeruginosa</i>	2.3±0.23	4.2±0.12	4.5±0.4	3.2±0.4	3.6±0.6	18.0±0.12

Note: ±: Standard deviation. A (*Phyllanthus emblica*), B (*Azadirachta indica*), C (*Capsicum annuum*), D (*Sapindus mukorossi*), E (*Plumeria obtuse*), F (*Cymbopogon citratus*). According to statistical one way Anova ($P \leq 0.05$), mean values of rows differ from each other.

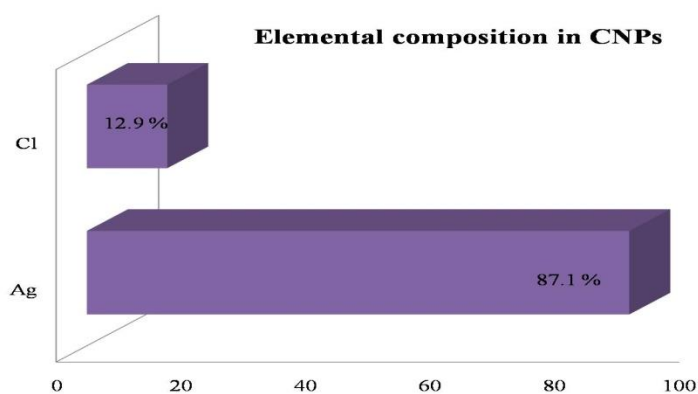
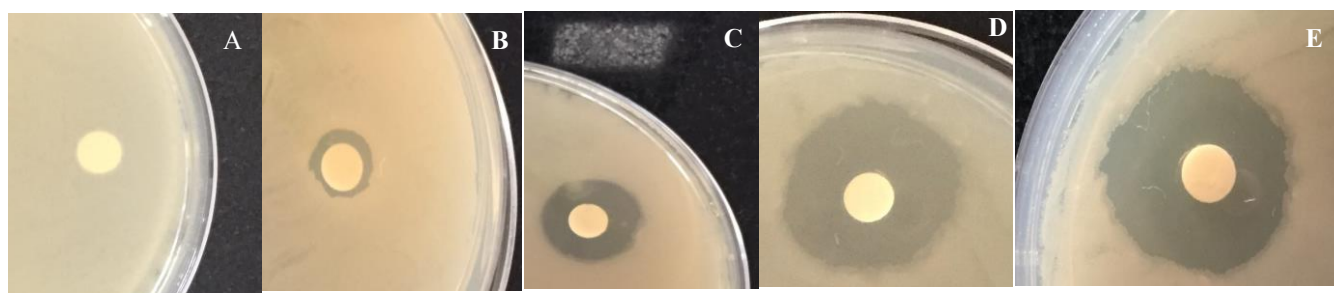
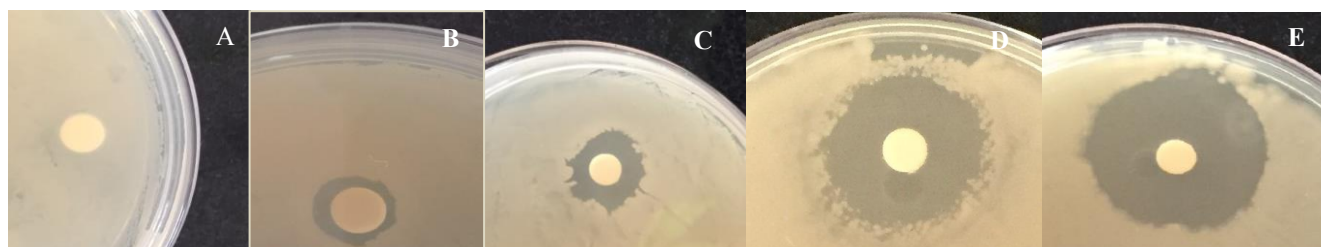


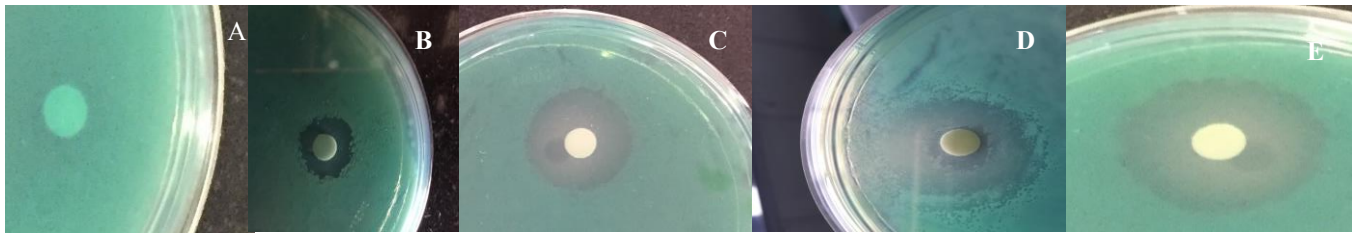
Figure S2. EDXRF graph illustrated the presence of elemental (Ag and Cl) composition in CNPs



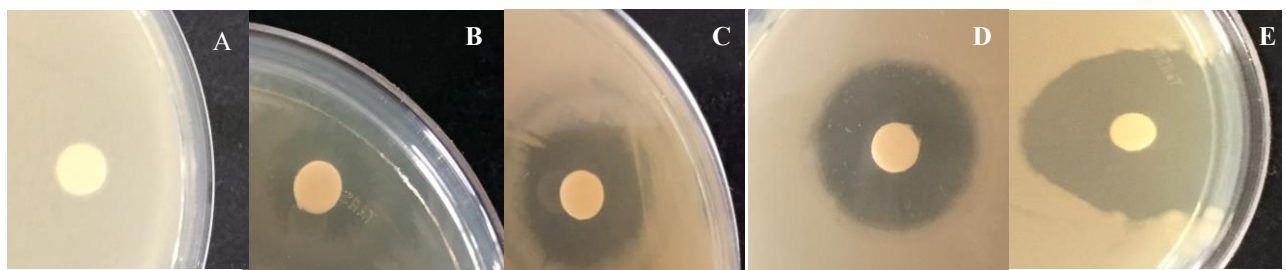
Bacillus cereus



Bacillus licheniformis



Pseudomonas aeruginosa



Escherichia coli

Figure S3 Depicted the zones of inhibition of CNPs using agar disc-diffusion method in a range of C₂₅-C₁₅₀ µg/ml concentration. Where a) Control (AgNO₃ 25 µg/ml) b) C₂₅ µg/ml c) C₅₀ µg/ml d) C₁₀₀ µg/ml and e) C₁₅₀ µg/ml