

L-Methionine Based Phenolic Compound Mediate unusual Assembly of AgNPs and Exert Efficient anti-biofilm effect

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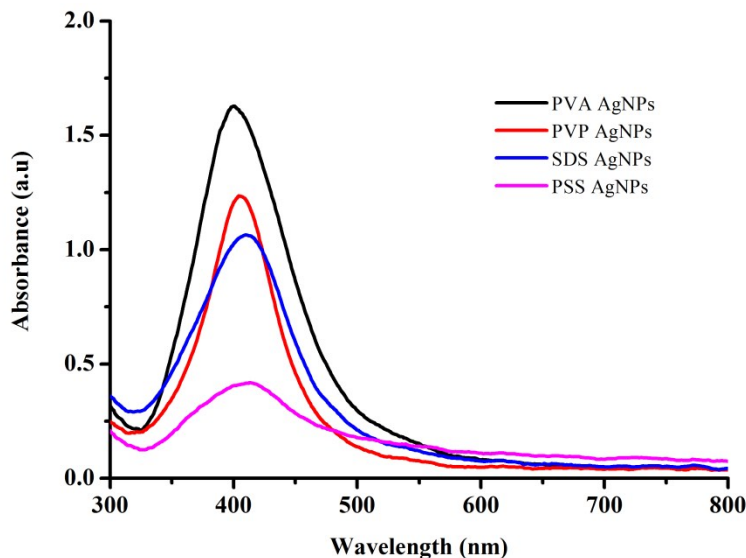


Fig. S1. Absorption spectra of AgNPs synthesized using NaBH₄ reducing agent.

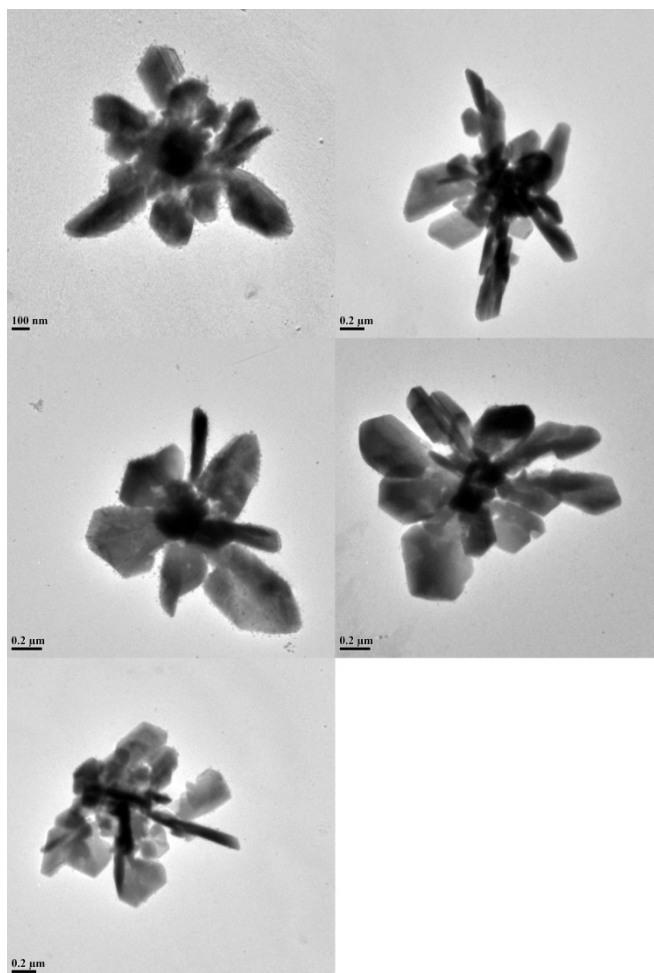


Fig. S2. HR-TEM images of L-PSS-AgNPs.

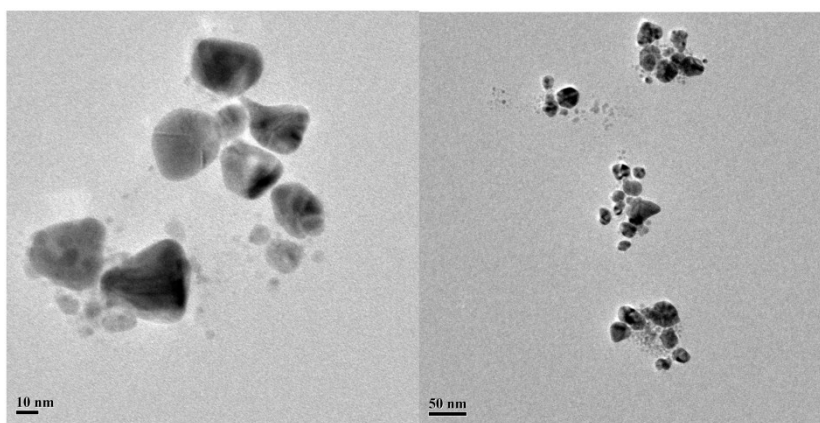


Fig. S3. HR-TEM images of L-PVA-AgNPs.

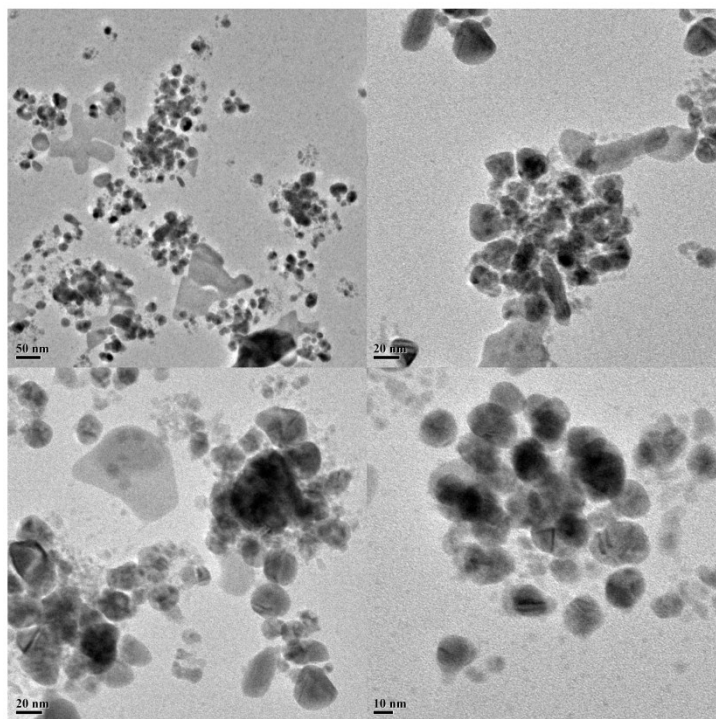


Fig. S4. HR-TEM images of L-PVP-AgNPs.

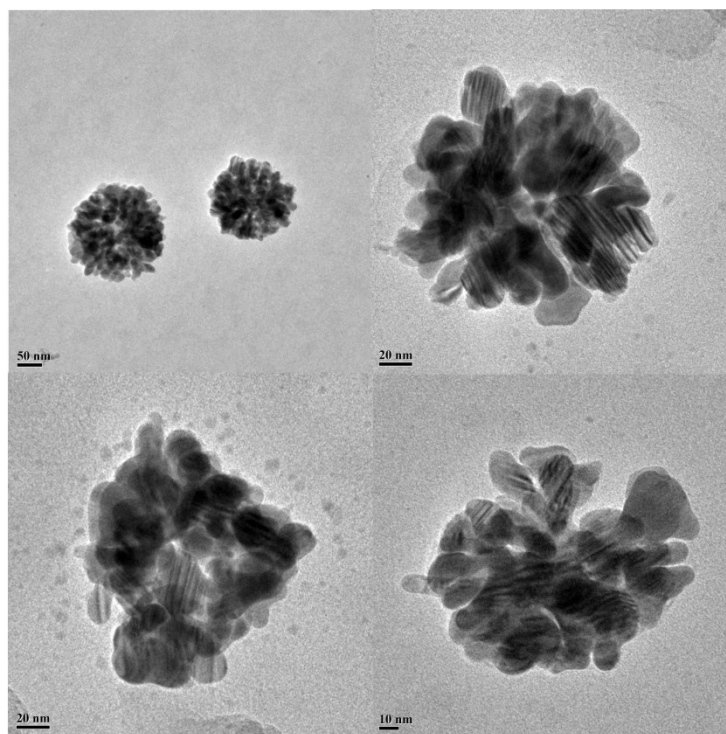


Fig. S5. HR-TEM images of L-SDS-AgNPs.

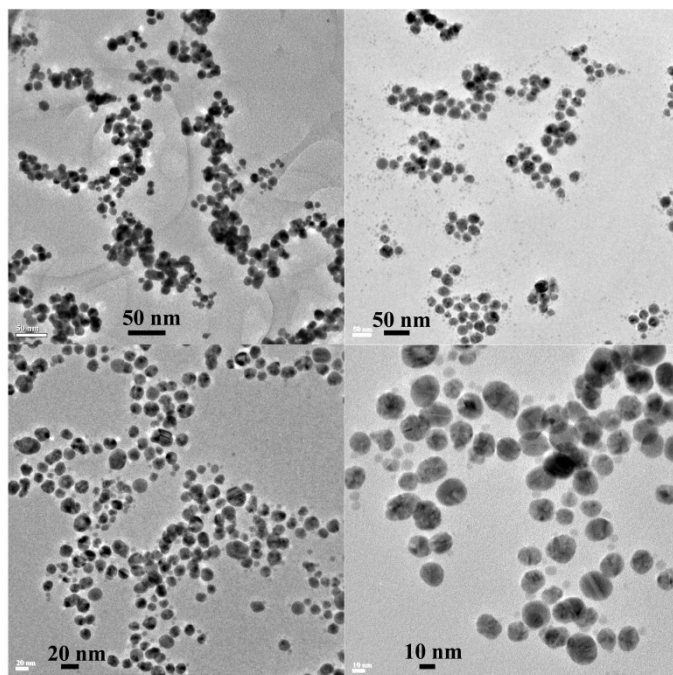


Fig. S6. HR-TEM images of (a) PSS-AgNPs, (b) PVA-AgNPs, (c) PVP-AgNPs and (d) SDS-AgNPs prepared using NaBH_4 as reducing agent.

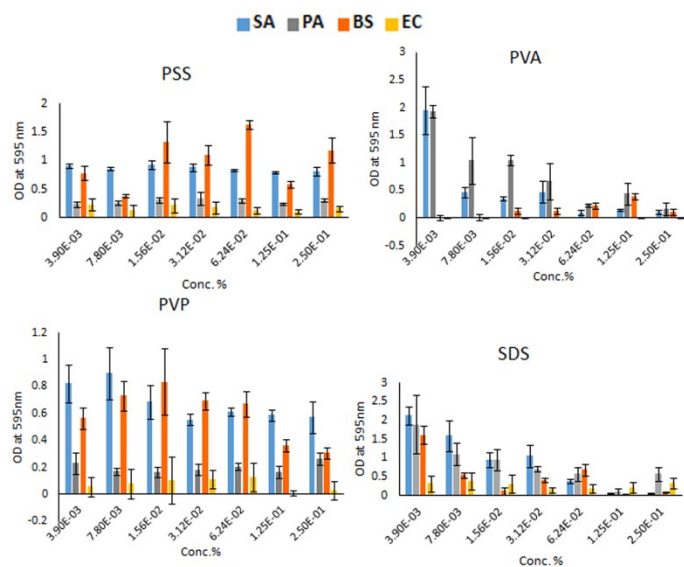


Fig. S7. Antibiofilm studies of capping agents (PSS, PVA, PVP and SDS) against four different bacteria. SA = *Staphylococcus aureus*, BS = *Bacillus subtilis*, PA = *Pseudomonas aeruginosa* and EC = *E. coli*.

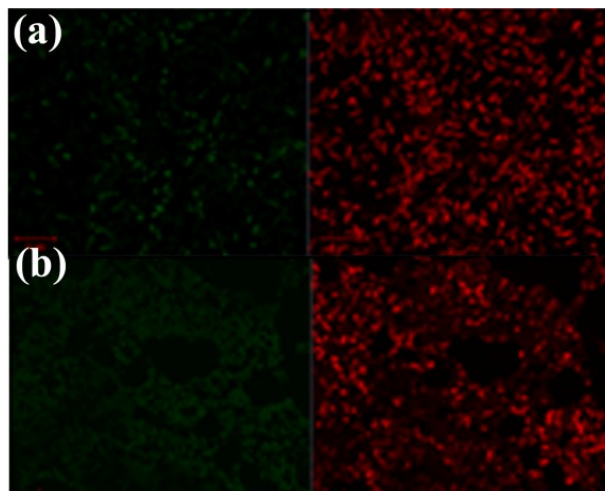


Fig.S8. Live-dead staining and confocal imaging of (a) *P.aeruginosa* and (b) *S. aureus* treated with PVP-AgNPs. Bacteria was grown for 3 days on the surface of a glass slide in 0.1 X nutrient broth and tryptic soy broth respectively, stained with acridine orange and propidium iodide and imaged using confocal microscopy.

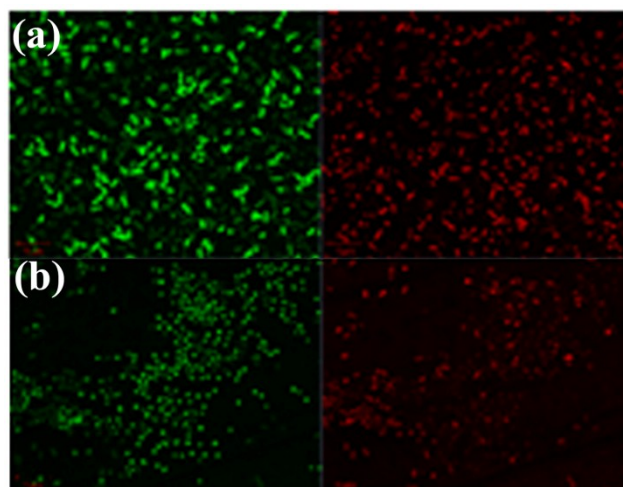


Fig. S9. Live-dead staining and confocal imaging of (a) *P.aeruginosa* and (b) *S. aureus* treated with AgNO_3 . Bacteria was grown for 3 days on the surface of a glass slide in 0.1 X nutrient broth and tryptic soy broth respectively, stained with acridine orange and propidium iodide and imaged using confocal microscopy..

Table S1. Membrane permeability of gram negative bacteria assessed by NPN assay (PA= *P. aeruginosa* and EC = *E. coli*).

Sample	NPN		Fluorescence		Net fluorescence		NPN factor	
	PA	EC	PA	EC	PA	EC	PA	EC
Buffer	-	-	0.01	0.01				
Buffer	+	+	9.01±0.9	9.01±0.9			1	1
+cells	-	-	10.18±1.8	8.6±0.3				
+cells	+	+	62.85±2.7	78.64±8.9	52.67	70.04	5.85	7.77
+cells + L (100µl)	+	+	80.43±6.5	87.59±16	70.25	78.99	7.80	8.77