Electronic Supplementary Material (ESI) for Materials Advances.

Ultrasonic-biogenic synthesis of silver on anodized aluminum with superior antibacterial properties

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Supplementary Information

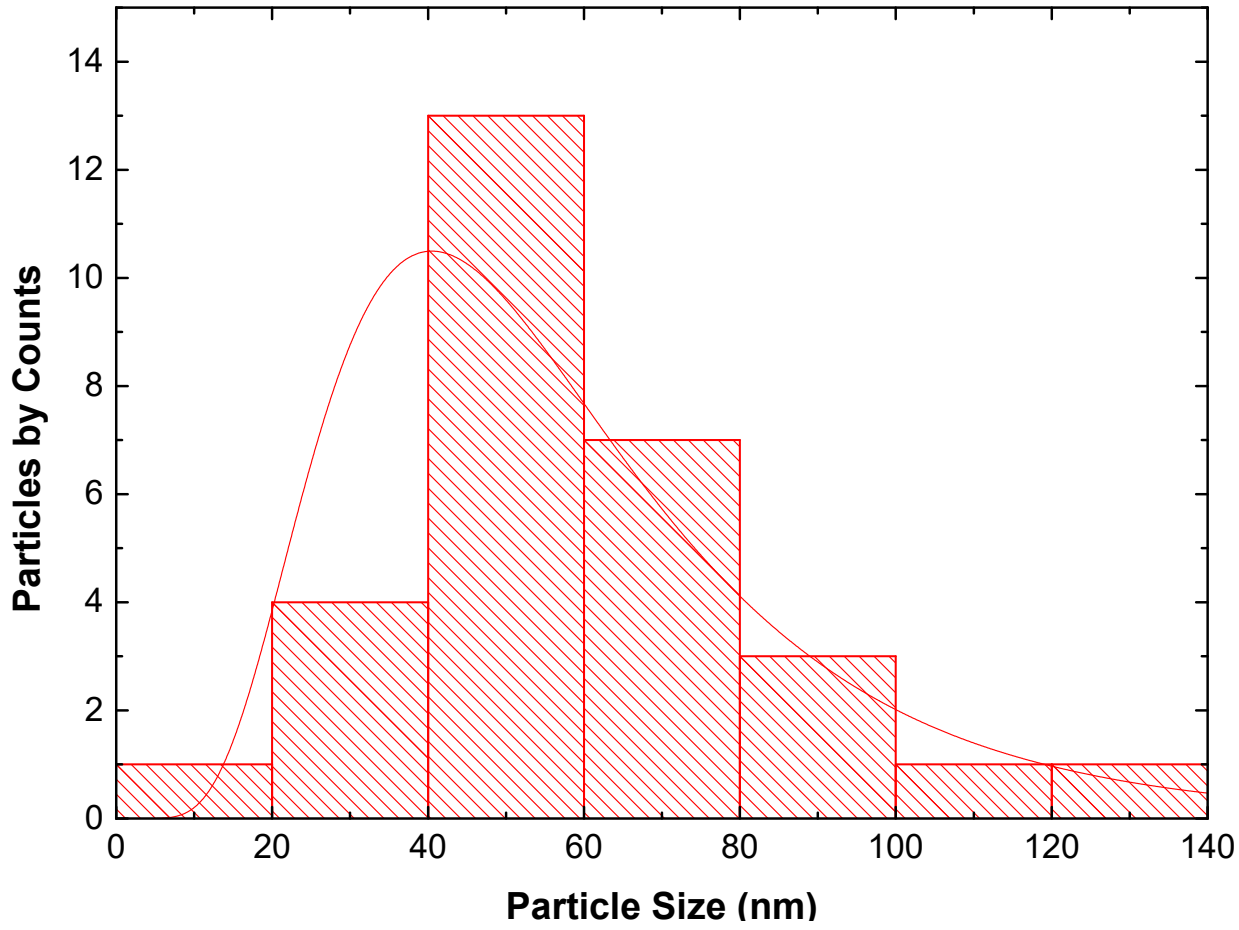

Figure S1. Particle size distribution of biogenic Ag-NPs synthesized by onion-extract.

Table S1. Antibacterial activity of silver nanoparticles from onion extract against model bacteria.

Agent	Mean diameter of inhibition zone (mm)		
	Gram-positive bacterium	Gram-negative bacteria	
	*S. aureus (*ATCC 6538)	*P. aeruginosa (*ATCC 9027)	*E. coli (*ATCC 7839)
Biogenic Ag-NPs	11.0 ± 1.0	13.0 ± 1.0	10.0 ± 0.9
onion extract	6.0 ± 0.6	6.0 ± 1.0	6.0 ± 0.8
Control (water)	0	0	0

Table S2: Antibacterial activity of biogenic silver nanoparticles coated anodized aluminum compared with controls by dry seeding assay.

Samples / Bacteria	% of Dead bacteria *E-Coli*					
Contact Time (min)	**0**	**15**	**60**	**120**	**240**	**1440**
Copper	0	15	100	100	100	100
Ag/AAO/Al	0	29	100	100	100	100
O.E/AAO/Al	0	10	100	100	100	100
AAO/Al	0	5	100	100	100	100
Al	0	0	12	17	31	65