

Supporting Information

Room temperature cured silver nanoparticles embedded hybrid nanocomposite coatings: Processing and property evaluation

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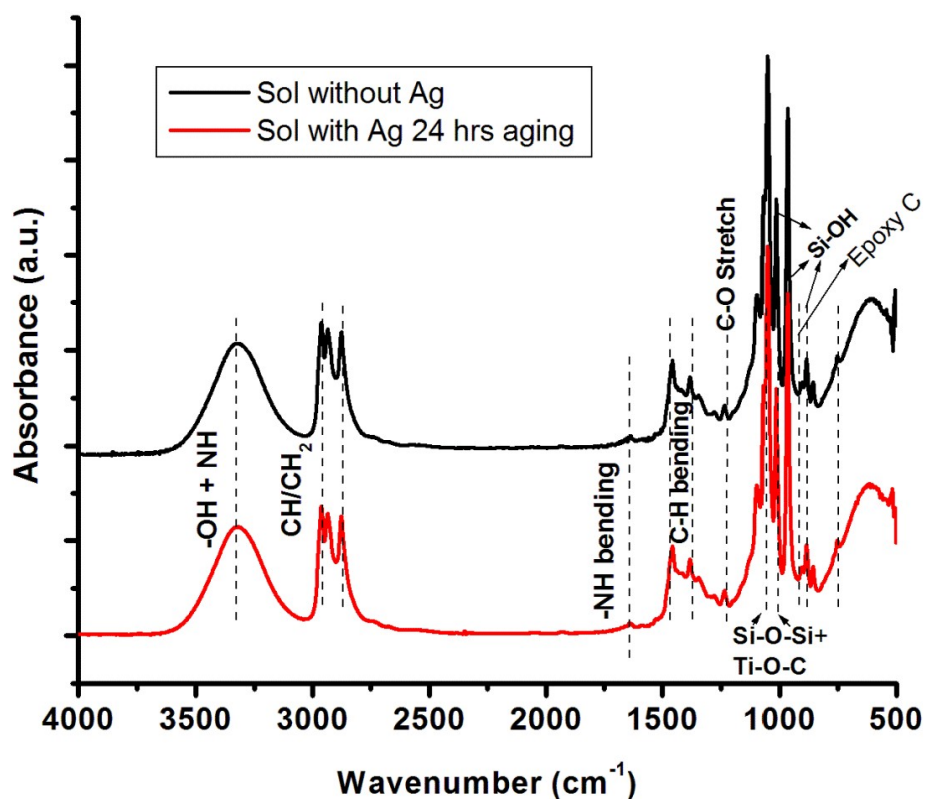


Fig.S1 ATR-FTIR spectra of sols without and with Ag NPs of 24 h aging.

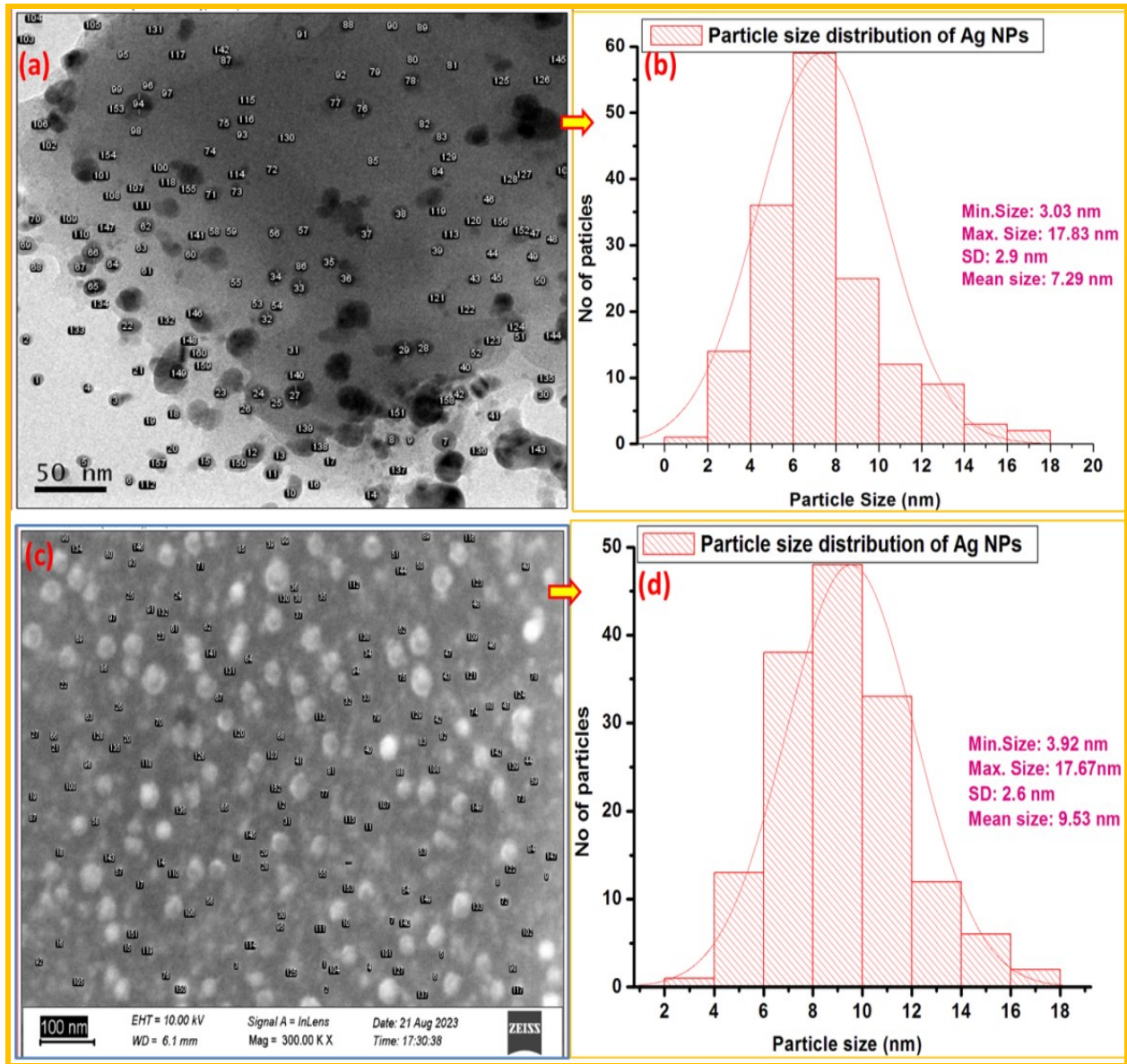


Fig.S2 Particle size distributions with histogram of the sample SA-4 obtained from (a,b) TEM image and (c,d) FESEM image

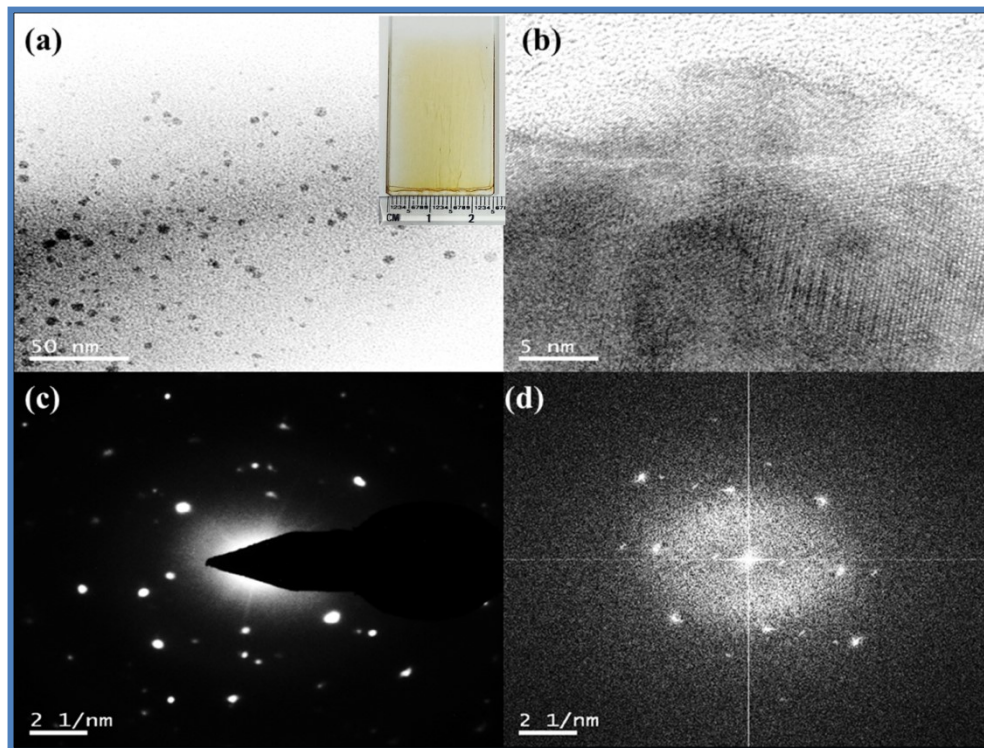


Fig.S3 TEM image of Ag NPs embedded in nanocomposite solution after 210 days: (a) TEM image, (b) HR-TEM and (c–d) SAED pattern

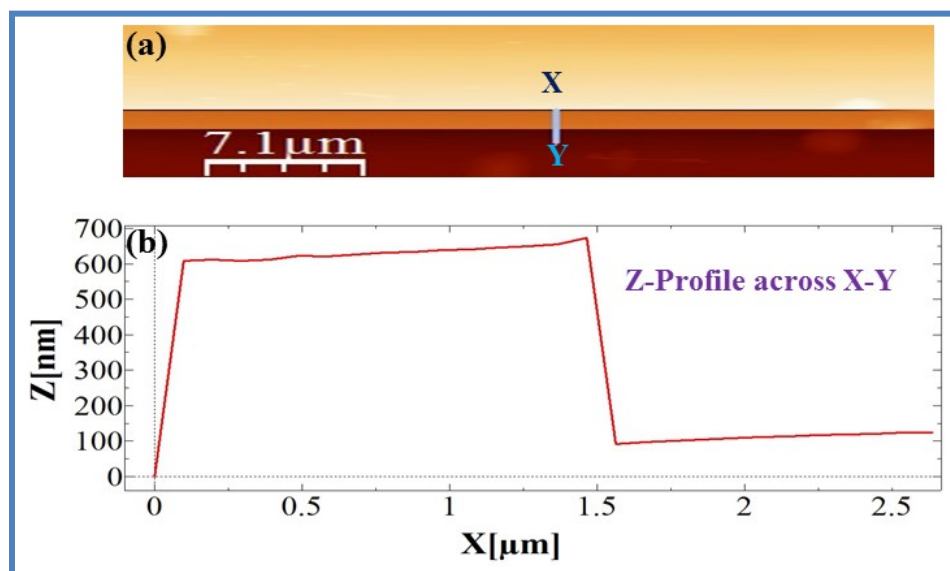


Fig. S4 Thickness of coated surface determined using AFM: (a) 2D image and (b) Z – profile along the coated and uncoated line.

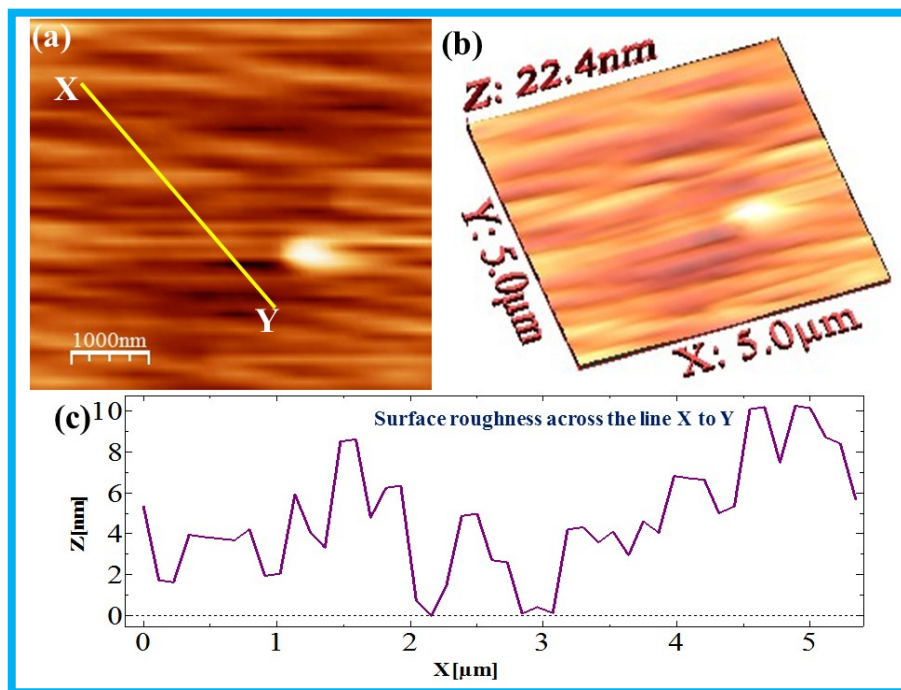


Fig. S5 AFM images of 2D top (a) and 3D (b) view of surface morphology of hybrid coating with height profile of surface roughness (c)

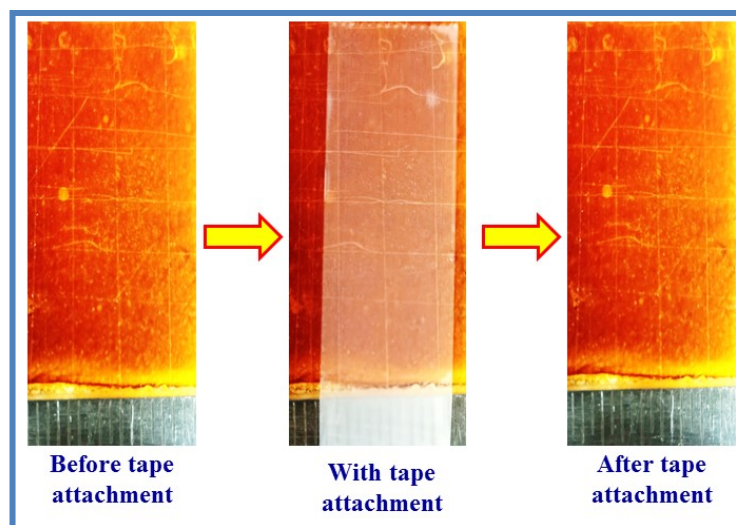


Fig. S6 Photographs of Ag NPs incorporated RT cured coated glass before and after adhesion test.

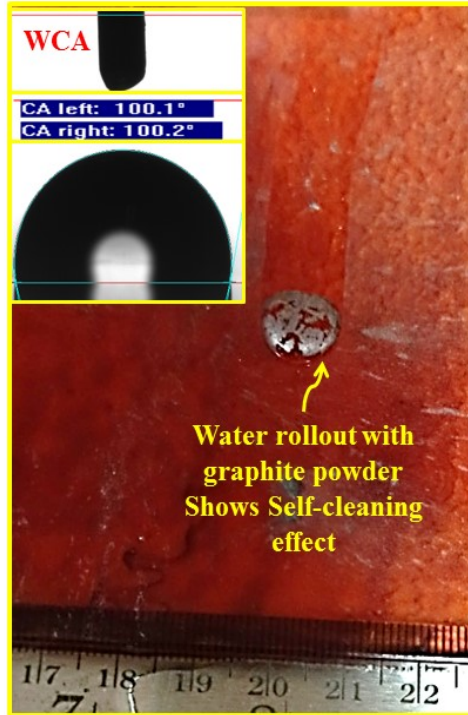


Fig. S7 WCA with displaying self-cleaning properties on coated surface.

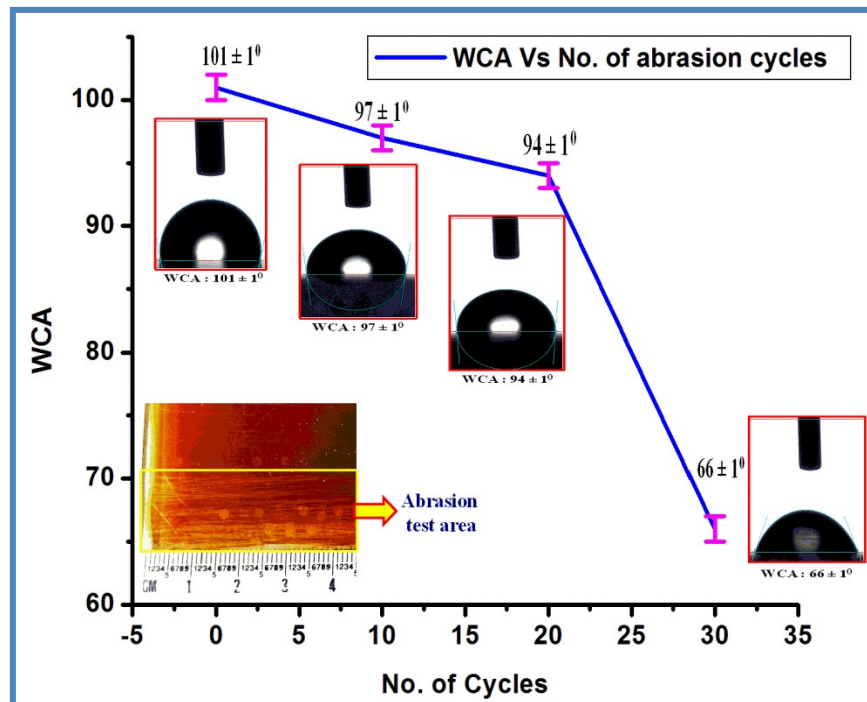


Fig. S8 Change of WCA value of room temperature cured Ag NPs embedded coated glass surface after different abrasion cycles.

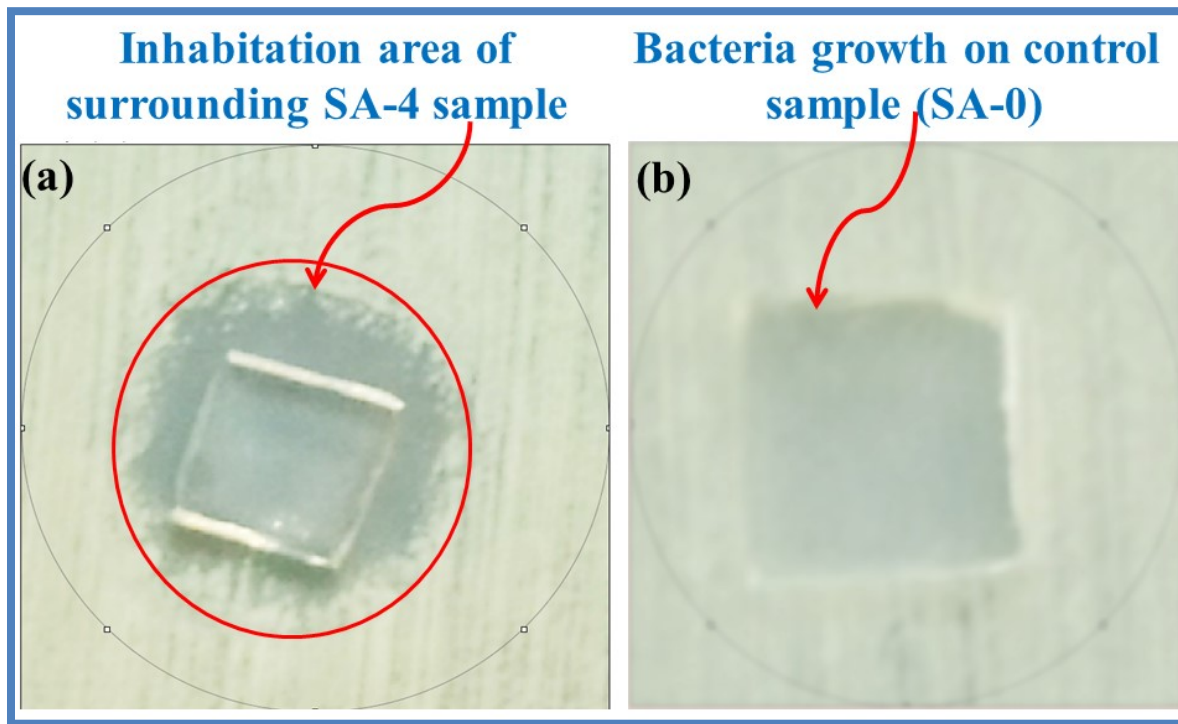


Fig. S9 Anti-bacterial effect on (a) Ag NPs embedded hybrid nanocomposite (SA-4) and (b) control sample (SA-0) after 24 h incubation, showing an excellent antibacterial property.