

Tailoring Mesoporous Silica-Coated Silver Nanoparticles and Polyurethane-Doped Films for Enhanced Antimicrobial Applications

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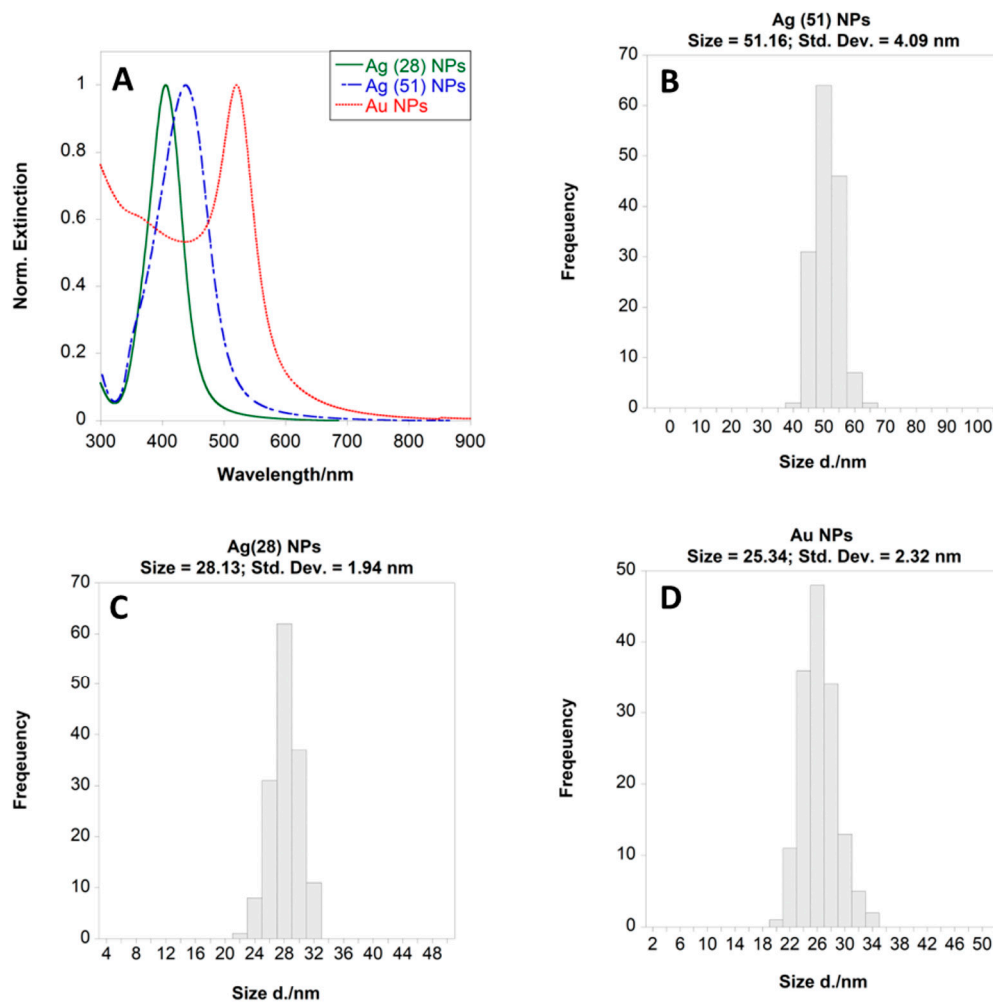


Figure S1: (A) Normalized extinction spectra of Ag(28) NPs, Ag(51) NPs and Au NPs, size distribution of (B) Ag(28) NPs, (C) Ag(51) NPs and (D) Au NPs.

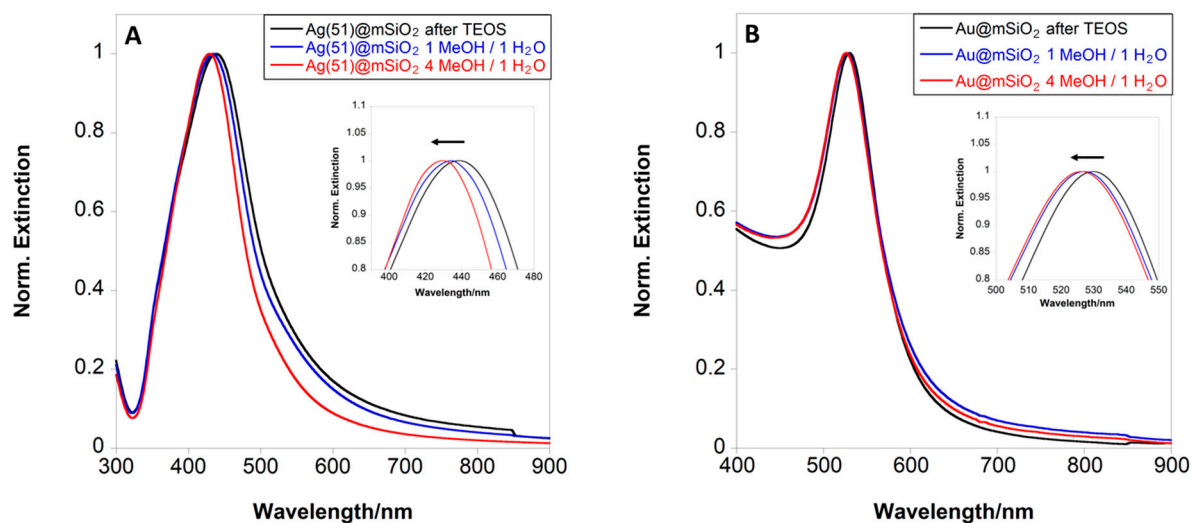


Figure S2: Extinction spectra of (A) Ag(51)@mSiO₂ and (B) Au@mSiO₂ during different purification cycles in MeOH and water demonstrating the blue shift of the LSPR band.

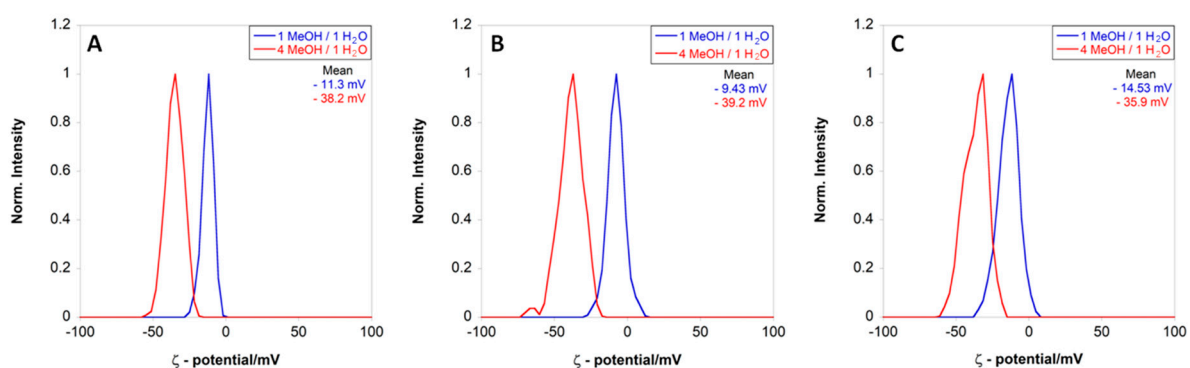


Figure S3: (A) ζ -potential of Ag(28)@mSiO₂, (B) Ag(51)@mSiO₂ and (C) Au@mSiO₂ during different purification cycles in MeOH and water.

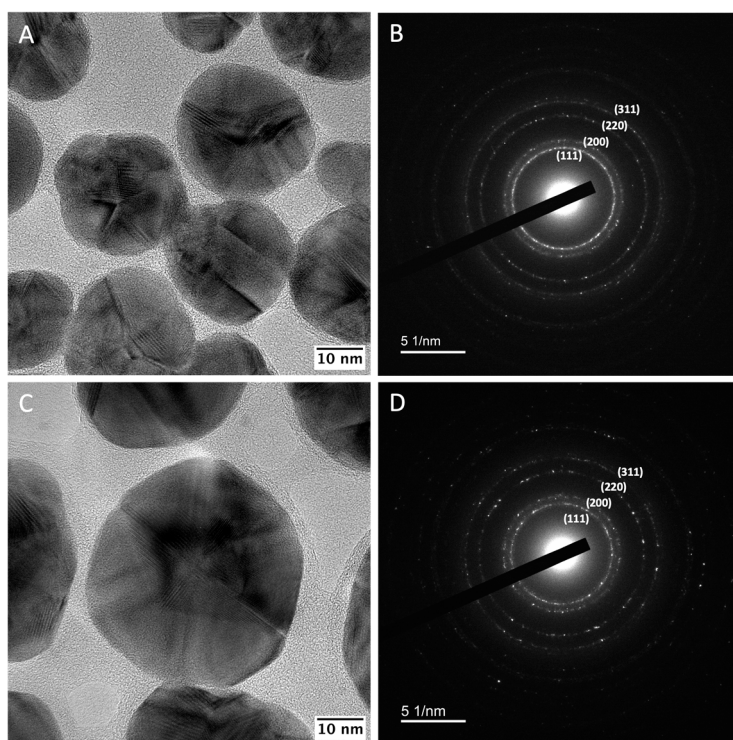


Figure S4. HRTEM images and SAED pattern of AgNPs with 28nm (A, B) and 51 nm (C, D) showing similar polycrystalline structure.

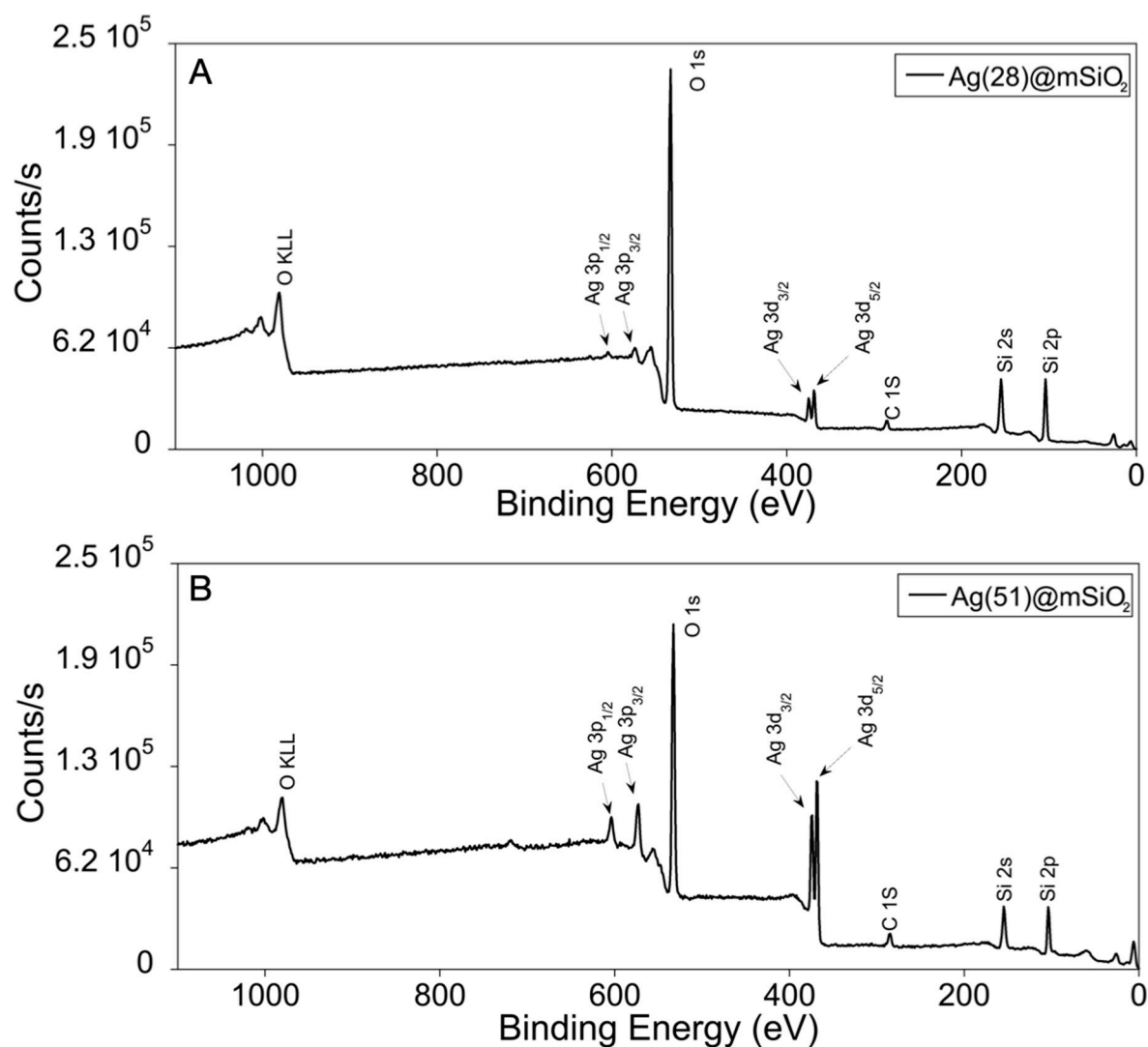


Figure S5. Survey spectra of Ag(28)@mSiO₂ NPs (A) and Ag(51)@mSiO₂ NPs (B)

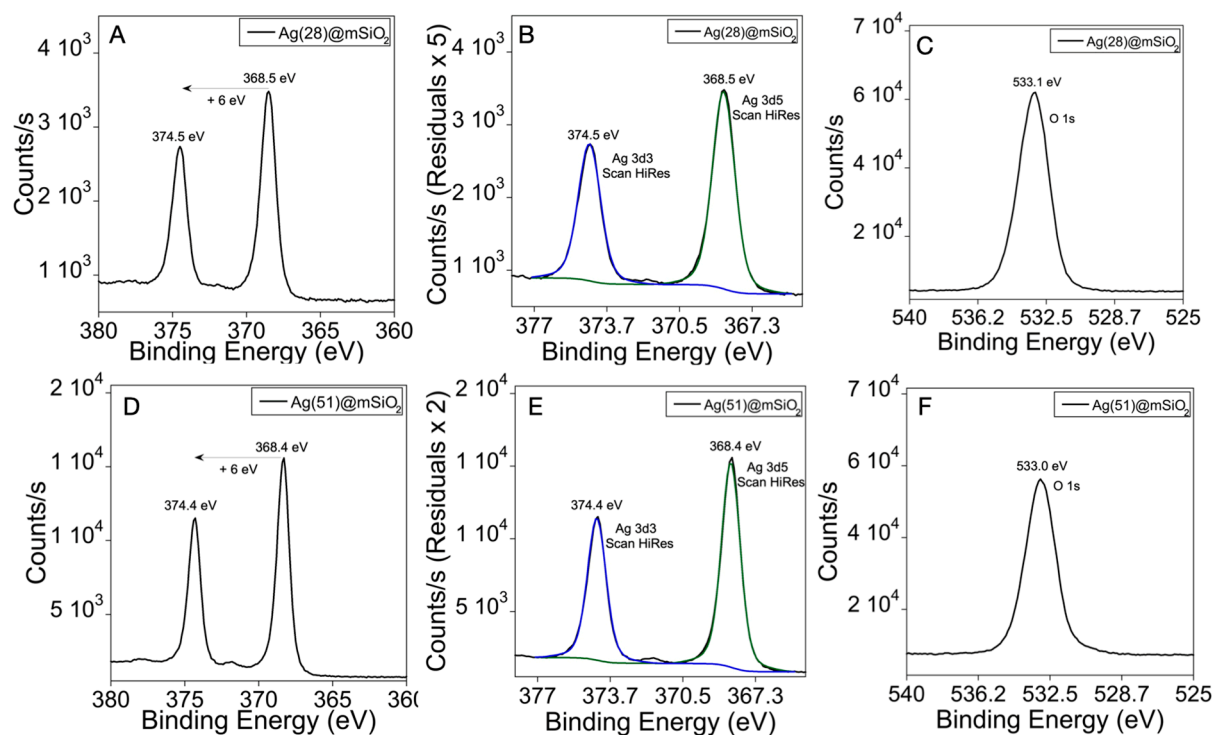


Figure S6. Enlarged XPS spectra in the Ag 3d region, deconvolution of the Ag 3d spectra and enlarged spectra in the O 1s region for Ag(28)@mSiO₂ NPs (A, B, C respectively) and Ag(51)@mSiO₂ NPs (D, E, F respectively).