

Direct Spray Deposition of Silver Nanoparticle films for Biosensing Application

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Supporting Information

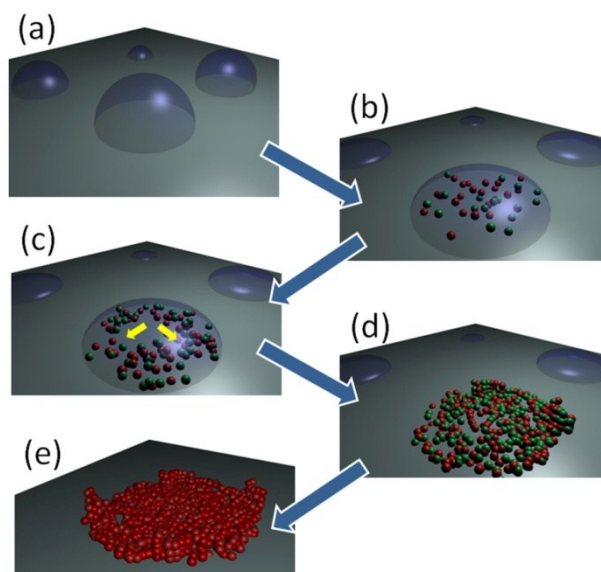


Figure S1: Schematic representation of the film deposition (a) droplet initially on surface (b) droplet spreads and heating leads to the formation of silver particles (red) and impurities (green) (c) solvent evaporation drives capillary flow towards edges (d) solvent completely evaporated and mixed residue remains (e) decomposition of residue leads to silver film with accumulations at the droplet edge.

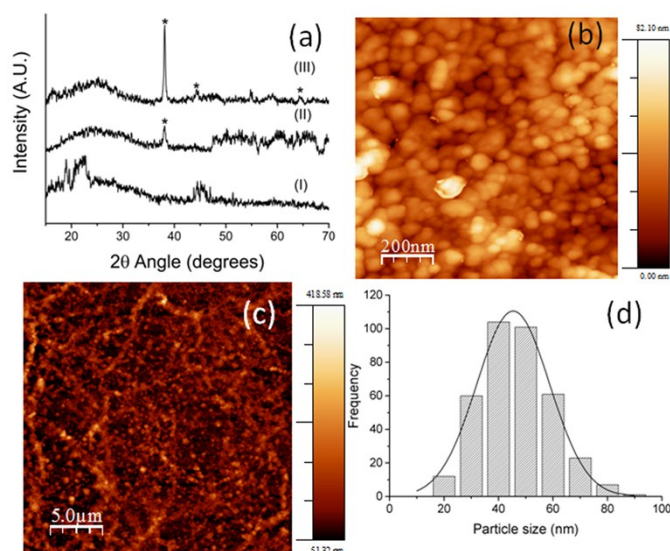


Figure S2: (a) XRD pattern of silver particles films deposited at (I) 100 °C (II) 140 °C (III) 180 °C (b) High magnification AFM image of silver film deposited at 180 °C showing nanoparticle morphology (c) low magnification AFM image of silver film deposited at 180 °C showing ring structures (d) particle size distribution measured by AFM.

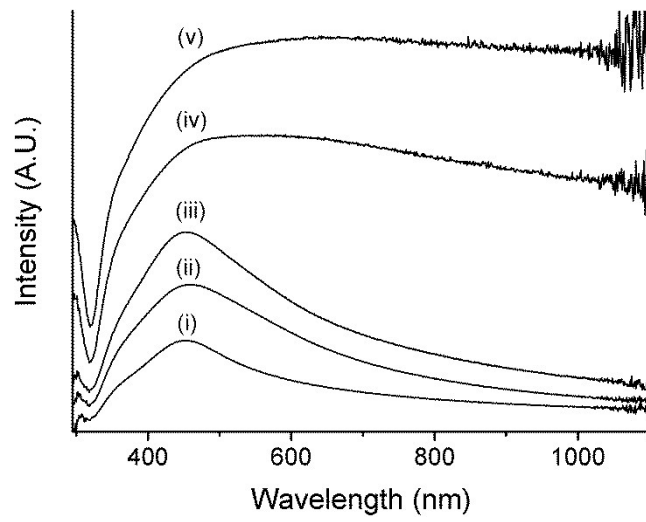


Figure S3: UV-Vis spectra of the silver films with a deposition time of (i) 2 seconds (ii) 5 seconds (iii) 10 seconds (iv) 15 seconds (v) 25 seconds
