ELECTORNIC SUPPLEMENTARY INFORMATION

Synthesis of carbohydrate polymer encrusted gold nanoparticles using bacterial exopolysaccharide: A novel and greener approach

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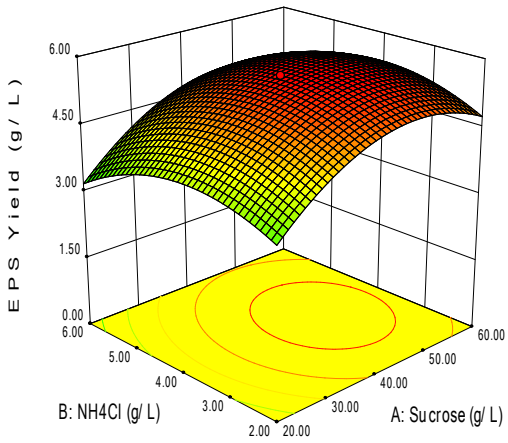
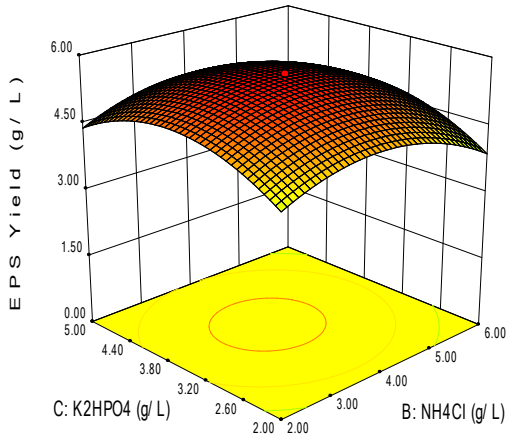
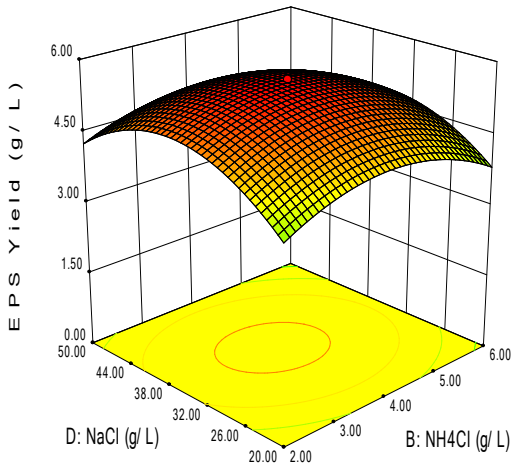
Fig. S1 3-D surface graphs obtained from CCD statistical optimization. a) Interaction between Sucrose (A) and NH4Cl (B); b) Interaction between NH4Cl (B) and K_2HPO_4 (C); c) Interaction between NH4Cl (B) and NaCl (D).



a



b



c

Fig. S2 NMR spectrum of purified EPS produced by *B. megaterium* MSBN04. a) ^{1}H NMR spectrum; b) ^{13}C NMR spectrum.

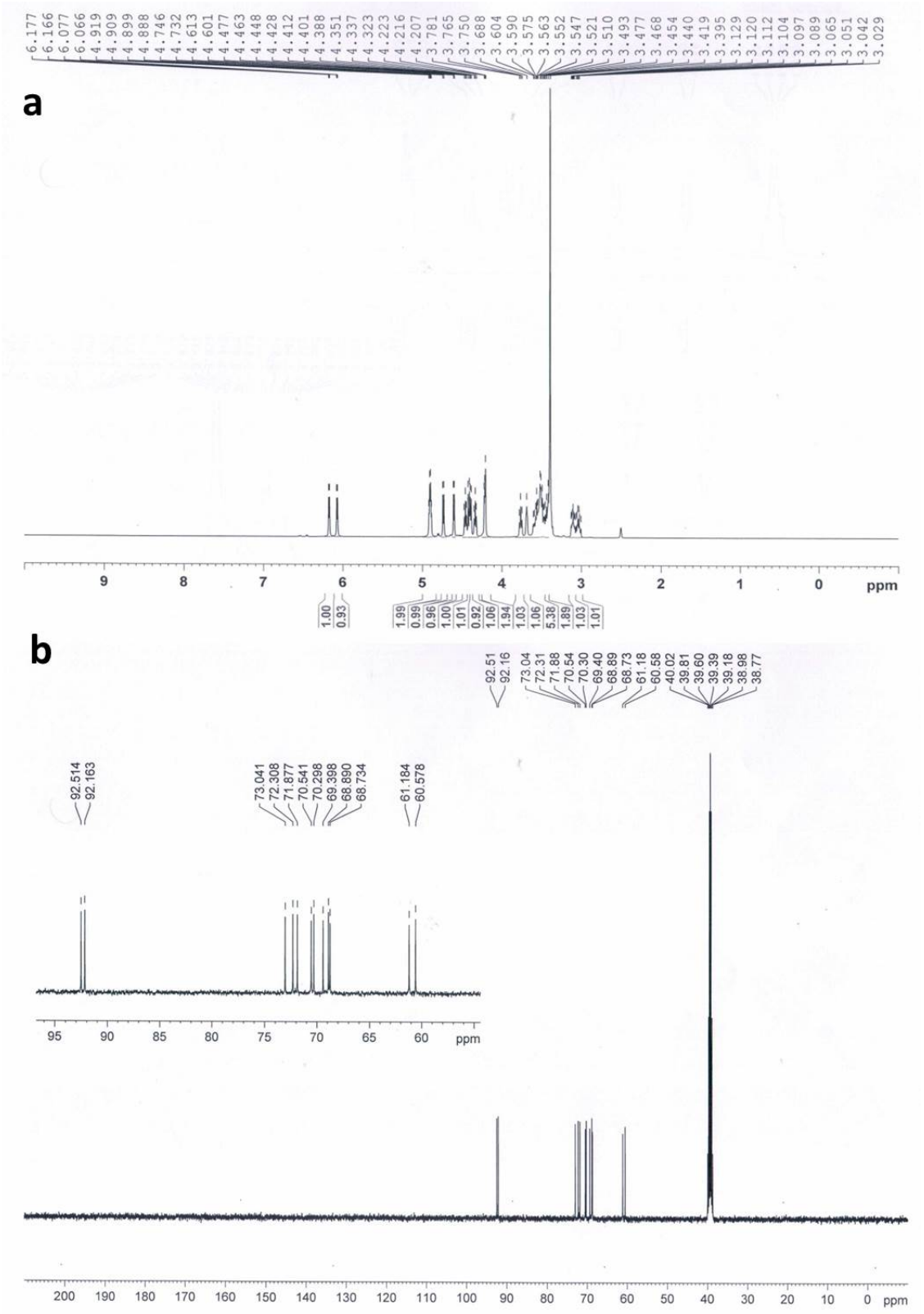


Fig. S3 Optimization of gold precursor $HAuCl_4$ for the synthesis of gold nanoparticles (GNPs) using EPS. The UV spectrum shows that the maximum synthesis at 1.0 mM $HAuCl_4$.

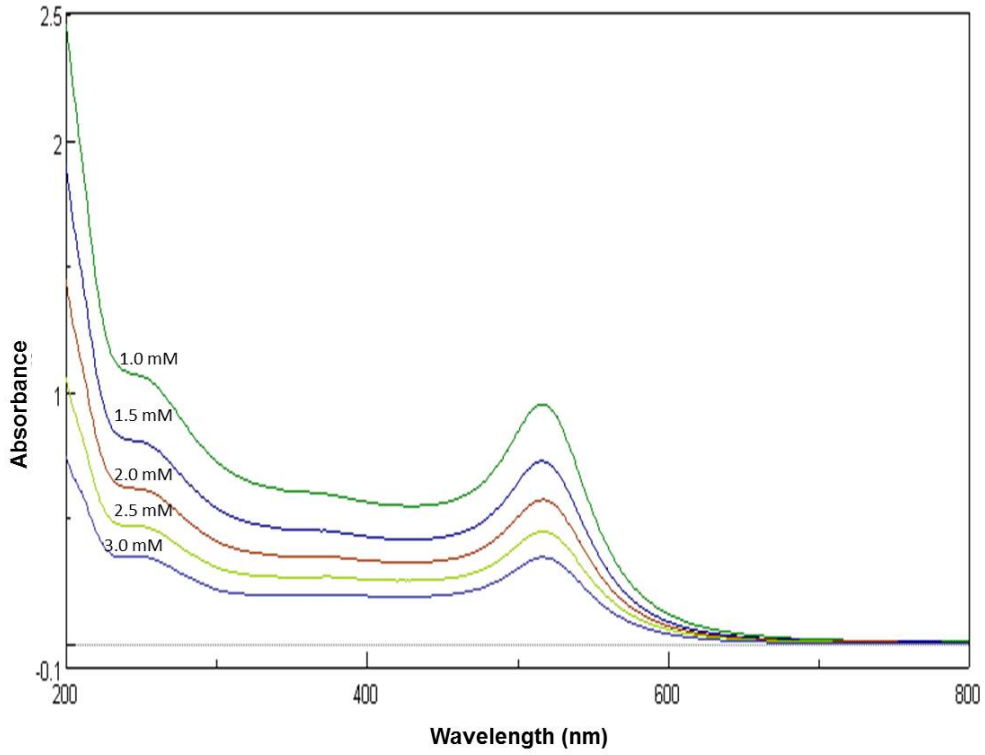


Fig. S4 Zeta potential of EPS stabilized and encrusted gold nanoparticles.