Supplementary material (ESI) for Journal of Materials Chemistry

Supplementary Information for

Synthesis of gold, silver and their alloy nanoparticles using bovine serum albumin as foaming and stabilizing agent

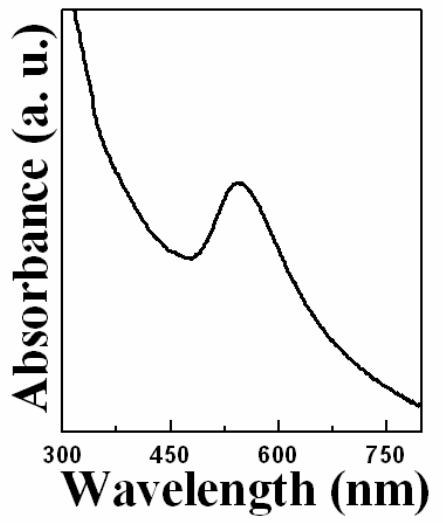

Fig. S1: Uv-Vis spectra of colloid nanoparticles obtained from a foam matrix formed by taking a mixture of 50 ml of CTAB ($2x10^{-2}$ M) and 25ml each of $HAuCl_4$ ($3x10^{-3}$ M) and Ag_2SO_4 ($1x10^{-3}$ M). The characteristic absorbance at ~545 nm clearly proves that only gold nanoparticles are formed in this experiment. An experiment under exactly identical conditions with BSA as a foaming surfactant resulted in the Au-Ag alloy formation.

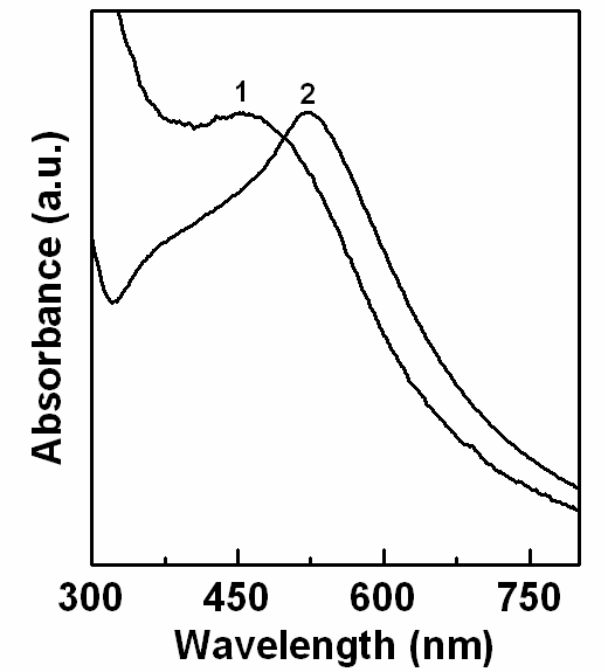

Fig. S2: UV-vis spectra of nanoparticles obtained 1) BSA-capped Au-Ag alloy NP solution obtained from 3Au:1Ag mixture in BSA foam and 2) when the reduction is carried in a solution mixture of $3AuCl_4^-$:$1Ag^+$:BSA.