Supporting Supplementary Information

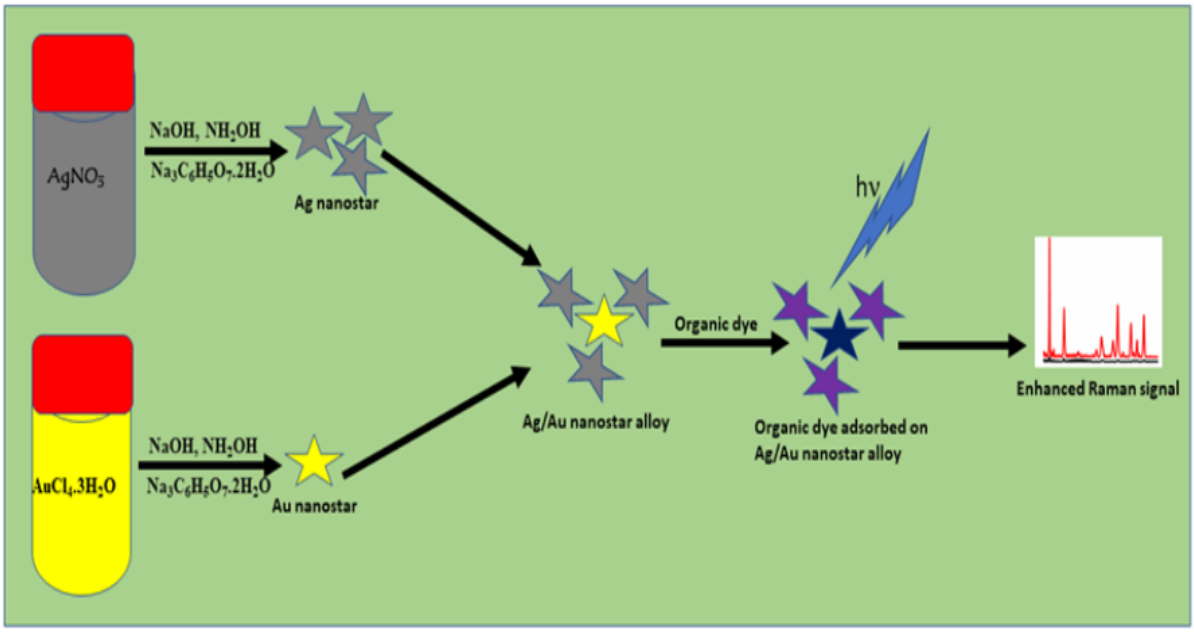

Fig. 1: Synthesis procedure and enhanced Raman effect of Ag/Au nanostar composite

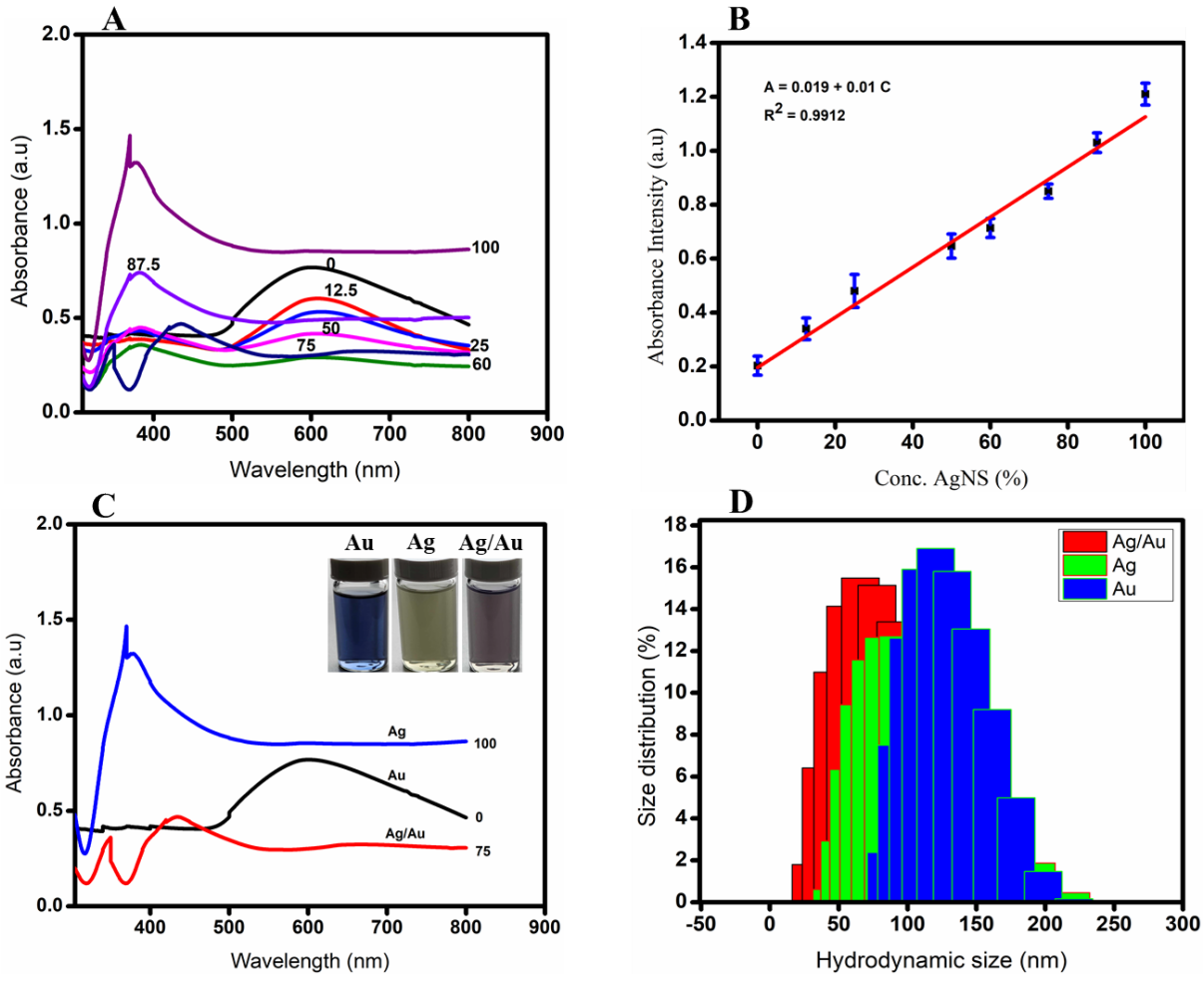

Fig. 2: Absorption spectra of (A) Ag/Au nanostar composite as a function of the percentage of Ag B) calibration plot of AgNS composition vs absorbance at 368 nm, (C) Absorption spectra of AgNS (pure), AuNS (pure), Ag/Au nanostar (75:25) (Inset: photo image for Au, Ag and Ag/Au colloids) and D) Histogram of size distributions for Ag, Au and Ag/Au nanostar particles.

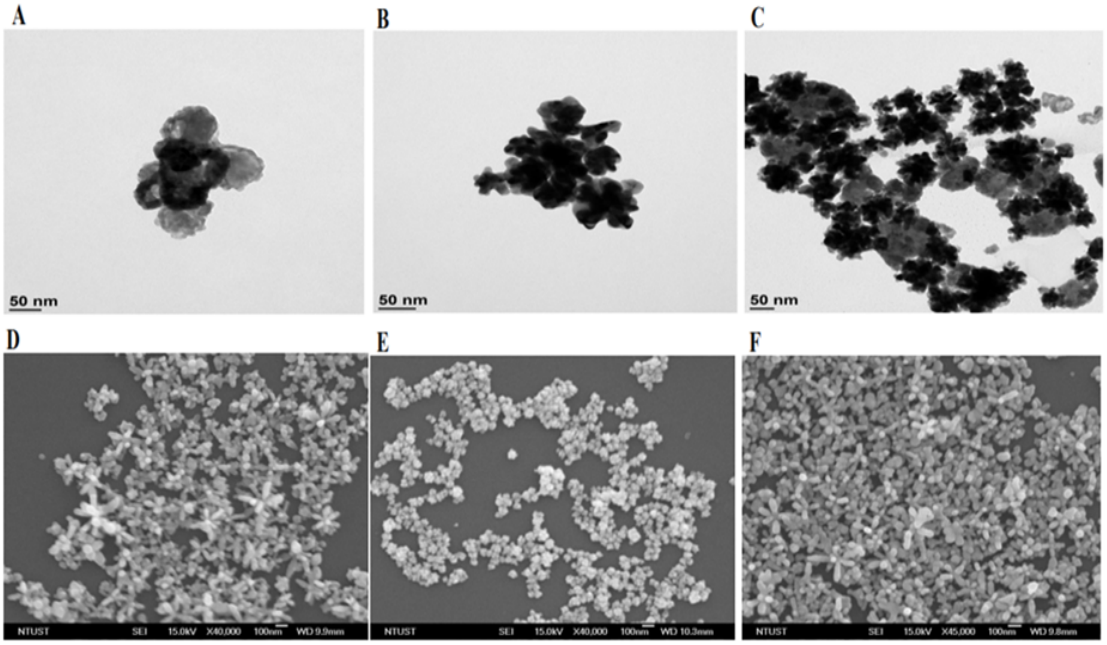

Fig. 3: TEM (A-C) and SEM (D-F) images of AgNS, AuNS and Ag/Au nanostar composites, respectively

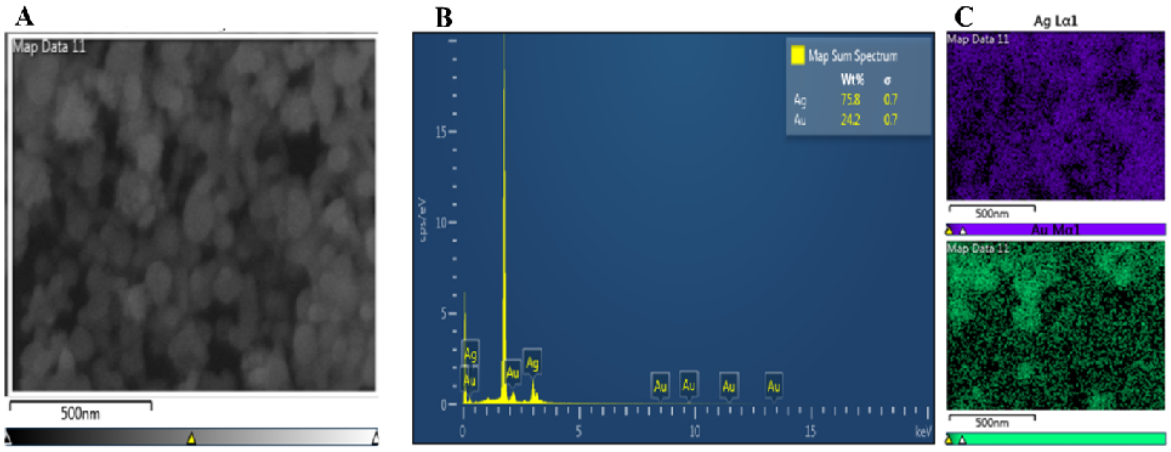

Fig. 4: SEM image (A), EDS spectrum of Au and Ag (B) and the separated SEM elemental mapping of Ag and Au (C)

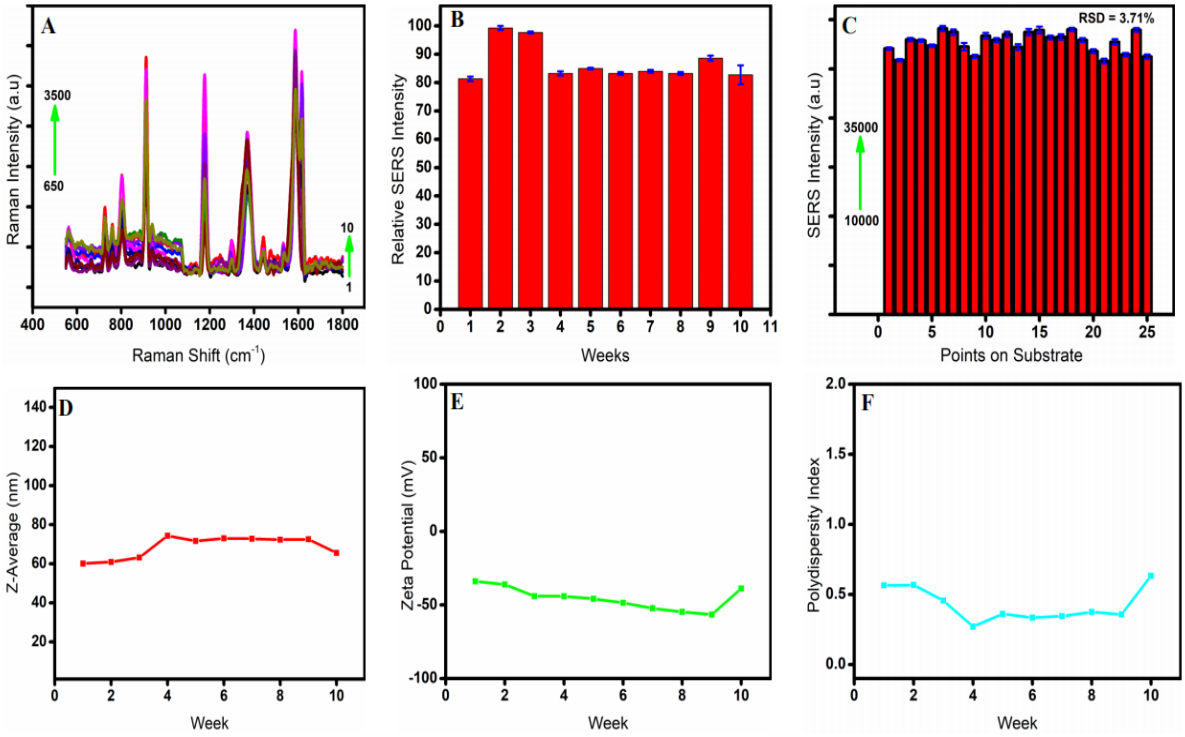

Fig. 5: (A) Actual and (B) relative SERS spectra of R6G (10^{-9} M) for a duration of 10 weeks, (C) Signal reproducibility of Ag/Au nanostar composite substrate at 25 spots, (D) hydrodynamic size, (E) zeta potential and (F) polydispersity index of the Ag/Au nanostar composite for a duration of 10 weeks

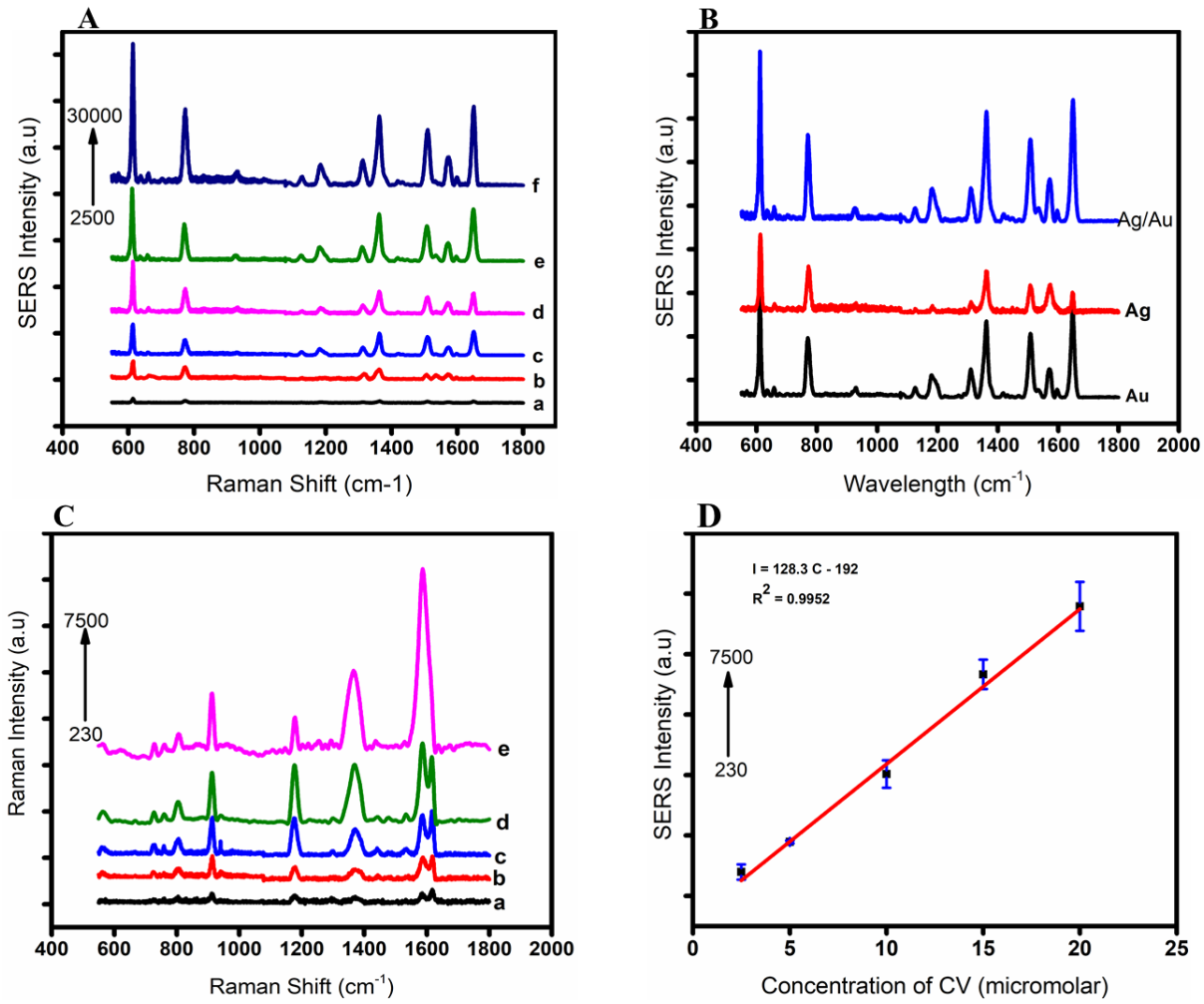

Fig. 6: A) SERS spectra of R6G on Ag/Au (75:25) nanostar composite substrate at concentrations of a) 1 M (on bare silica), b) 10^{-15} M, c) 10^{-12} M, d) 10^{-9} M, e) 10^{-6} M, and f) 10^{-3} M B) SERS spectra of 10^{-6} M R6G on AgNS, AuNS and Ag/Au nanostar composite substrate C) SERS spectra of CV at concentrations of a) 2.5, b) 5, c) 10, d) 15 and e) 20 micromolar D) linear calibration plot of CV