

Supplementary Information

Incident Angle–Tuned, Broadband, Ultrahigh-Sensitivity Plasmonic Antennas Prepared from Nanoparticles on Imprinted Mirrors

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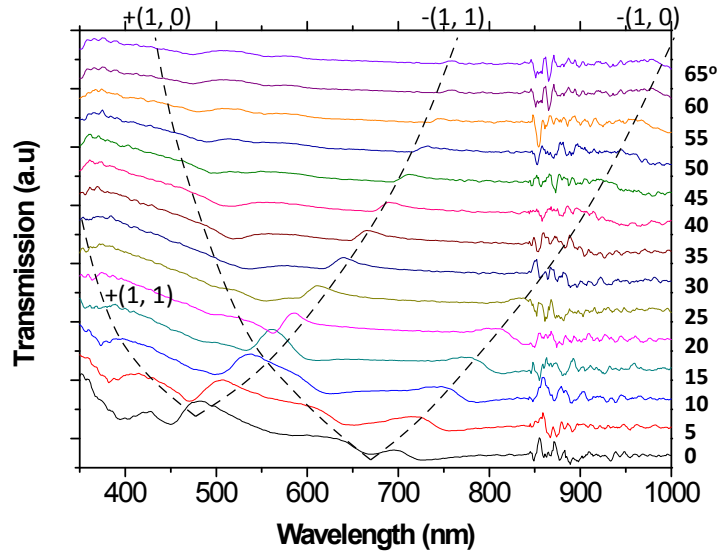


Fig. S1 Angle-dependent zero-order transmission spectra of imprinted Ag mirror prepared by 5MPa imprinting pressure (period=400nm). The dash lines depicted the shifting and splitting of SP modes. Note that all spectra have been offset in order to clearly show the SPR band.

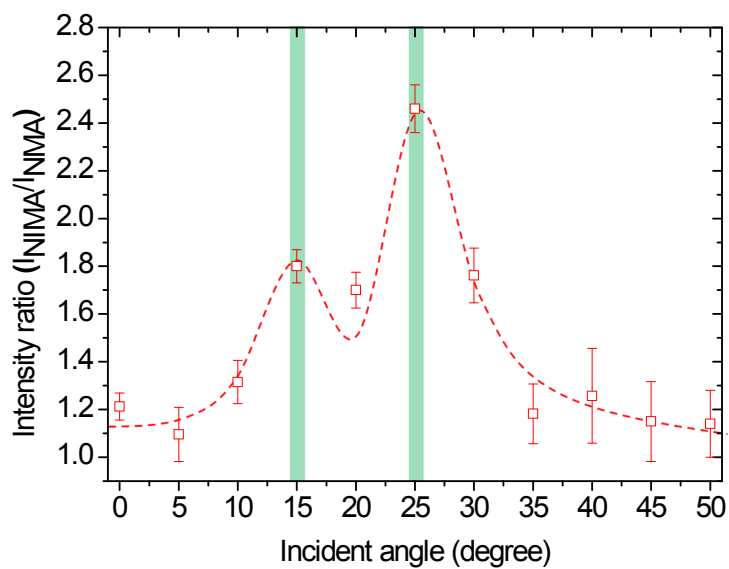


Fig. S2 Angle-dependent SERS intensity ratio ($I_{\text{NIMA}}/I_{\text{NMA}}$) of 1360 cm^{-1} R6G fingerprint under 532nm excitation.

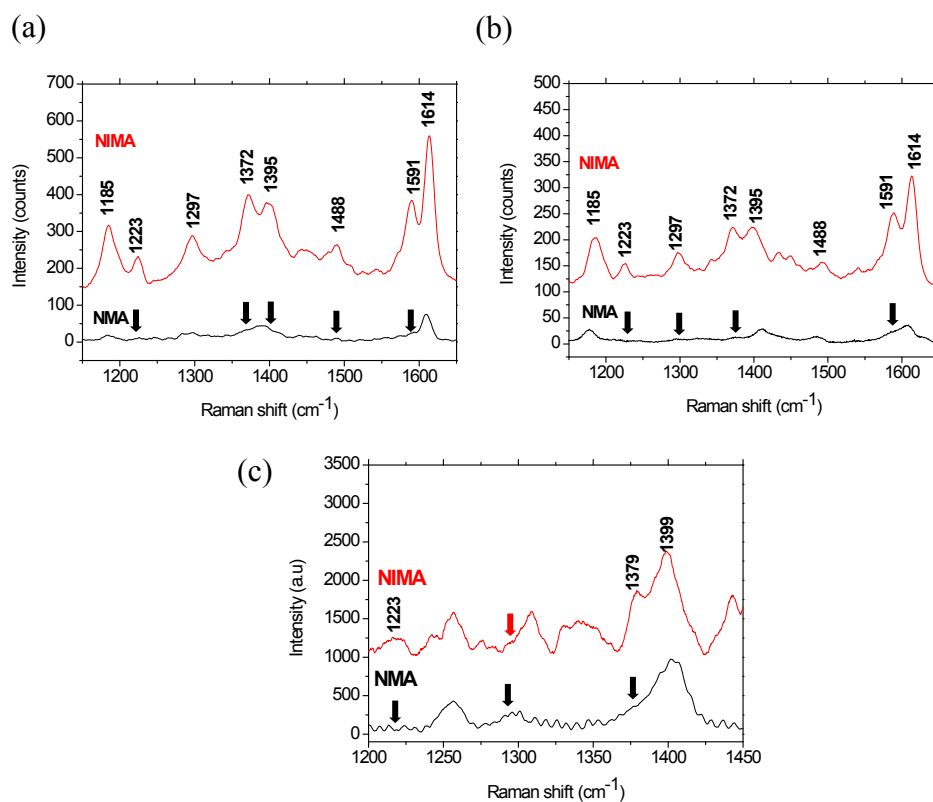


Fig. S3 SERS spectra of 10^{-6} M MG adsorbed on the NMA and NIMA under excitation at (a, b) 532 nm with angles of incidence of (a) 15 and (b) 25° and (c) 785 nm with an angle of incidence of 25° . Arrows indicate the missing Raman lines of MG.

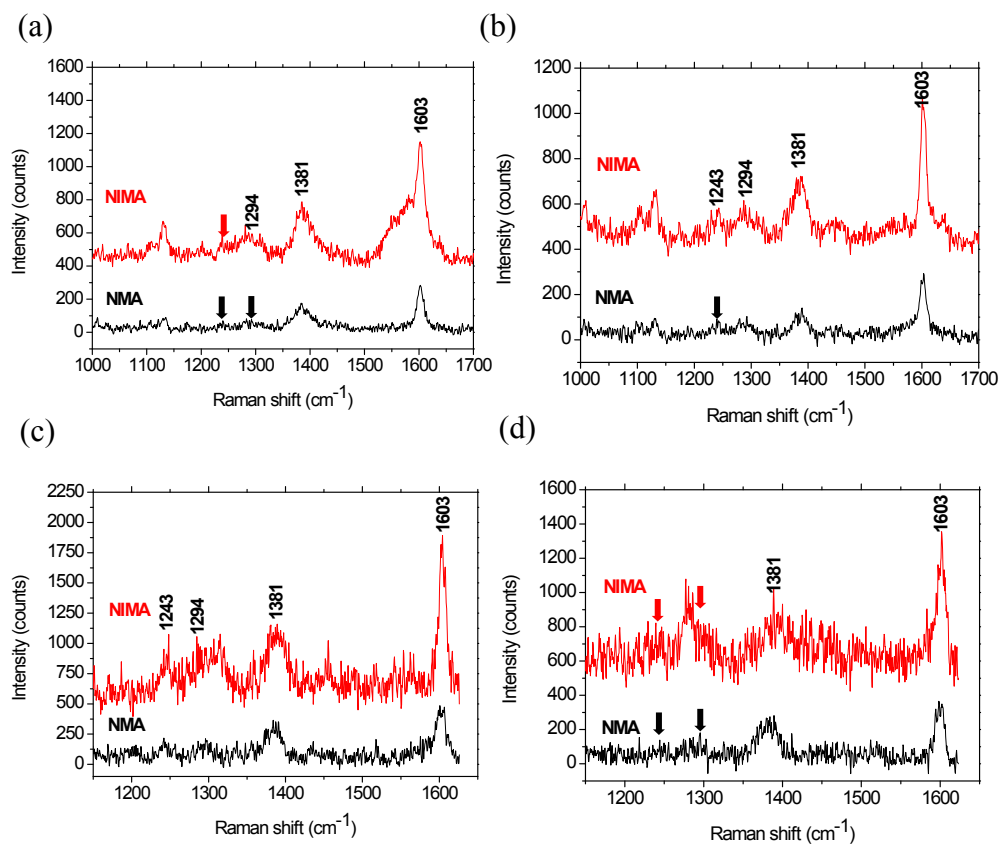


Fig. S4 SERS spectra of 10^{-6} M CF790 dye adsorbed on the NMA and NIMA under excitation at (a, b) 532 nm with angles of incidence of (a) 15 and (b) 25° and (c, d) 633 nm at (c) normal incidence and (d) an angle of incidence of 35°. Arrows indicate the missing Raman lines of CF790.

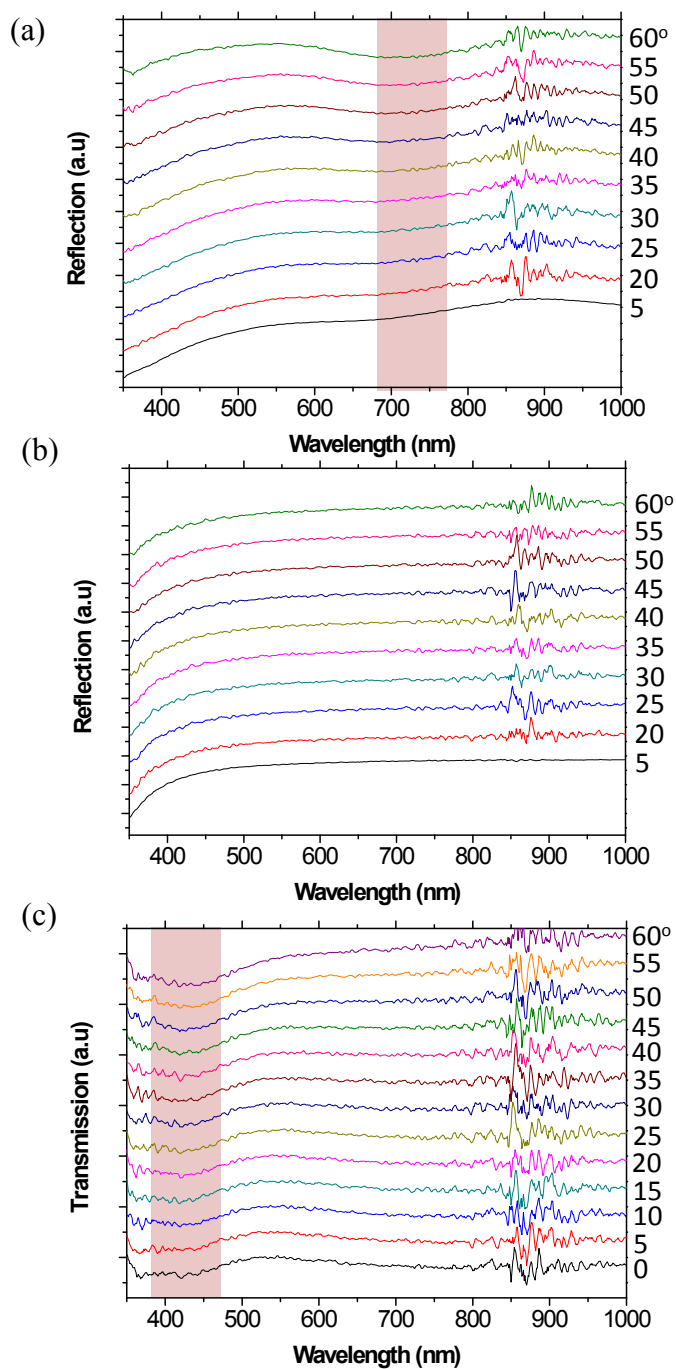


Fig. S5 Angle-dependent (a, b) reflection spectra of (a) NMA and (b) flat Ag film; (c) transmission spectra of Ag NPs on glass. The colored region depicted that the LSPR band did not shift with incident angles. The LSPR displayed large extinction to incoming light and induced

dips in the reflection spectra of NMA and transmission spectra of Ag NPs on glass. Note that all spectra have been offset in order to clearly show the LSPR band.