

Electronic Supplementary Information

In situ ploydopamine-assisted deposition of silver nanoparticles on two dimension support as an inexpensive and highly efficient SERS substrate

Peilan Wang^a, Yanling Zhou^a, Ying Wen^{*a}, Feng Wang^{*a}, Haifeng Yang^{*a}

^a The Education Ministry Key Lab of Resource Chemistry, Shanghai Key Laboratory of Rare Earth Functional Materials, Shanghai Municipal Education Committee Key Laboratory of Molecular Imaging Probes and Sensors, and Department of Chemistry, Shanghai Normal University, Shanghai, 200234, P. R. China.. E-mail: ying.wen@shnu.edu.cn, wangfeng@shnu.edu.cn, hfyang@shnu.edu.cn

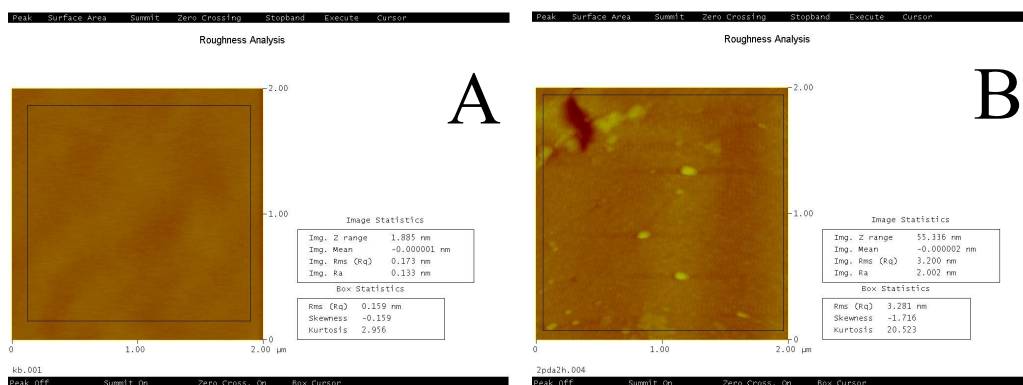


Fig. S1 AFM images of (A) Blank and (B) PDA coated silica substrate.

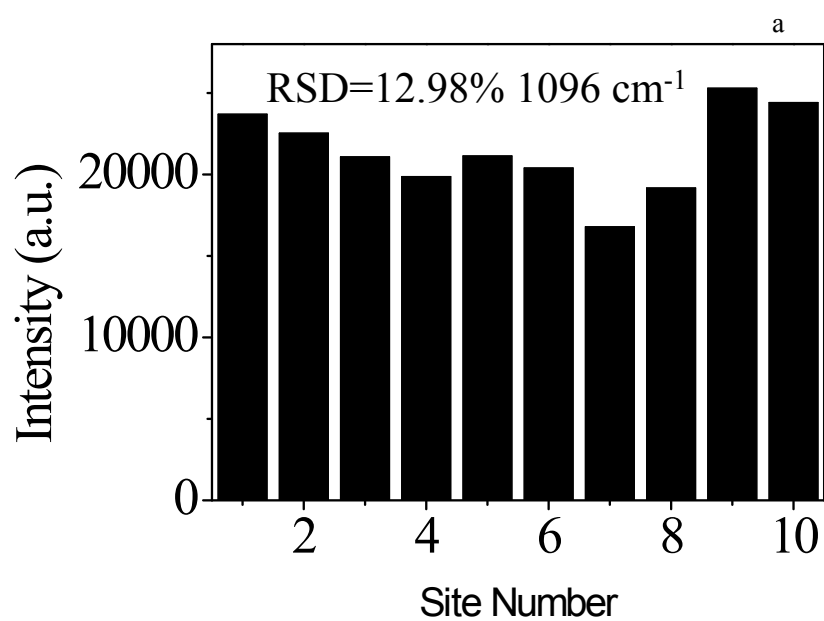
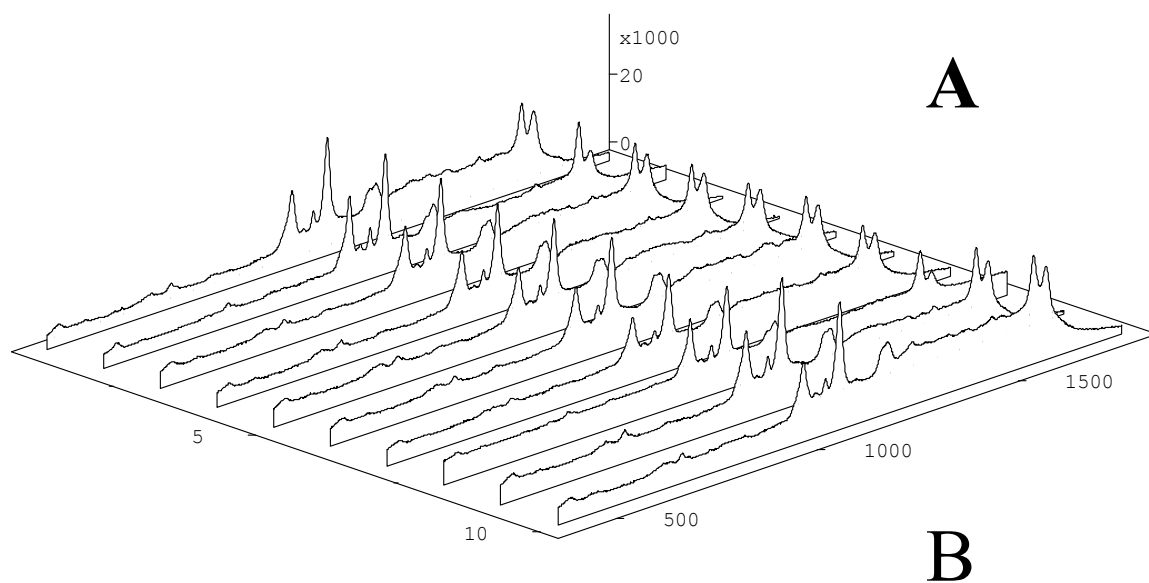


Fig. S2 (A) SERS spectra of 10^{-6} M 4-Mpy collected on 10 different AgNPs/PDA substrates. (B) The corresponding intensities of the main Raman peaks at 1096 cm^{-1} .

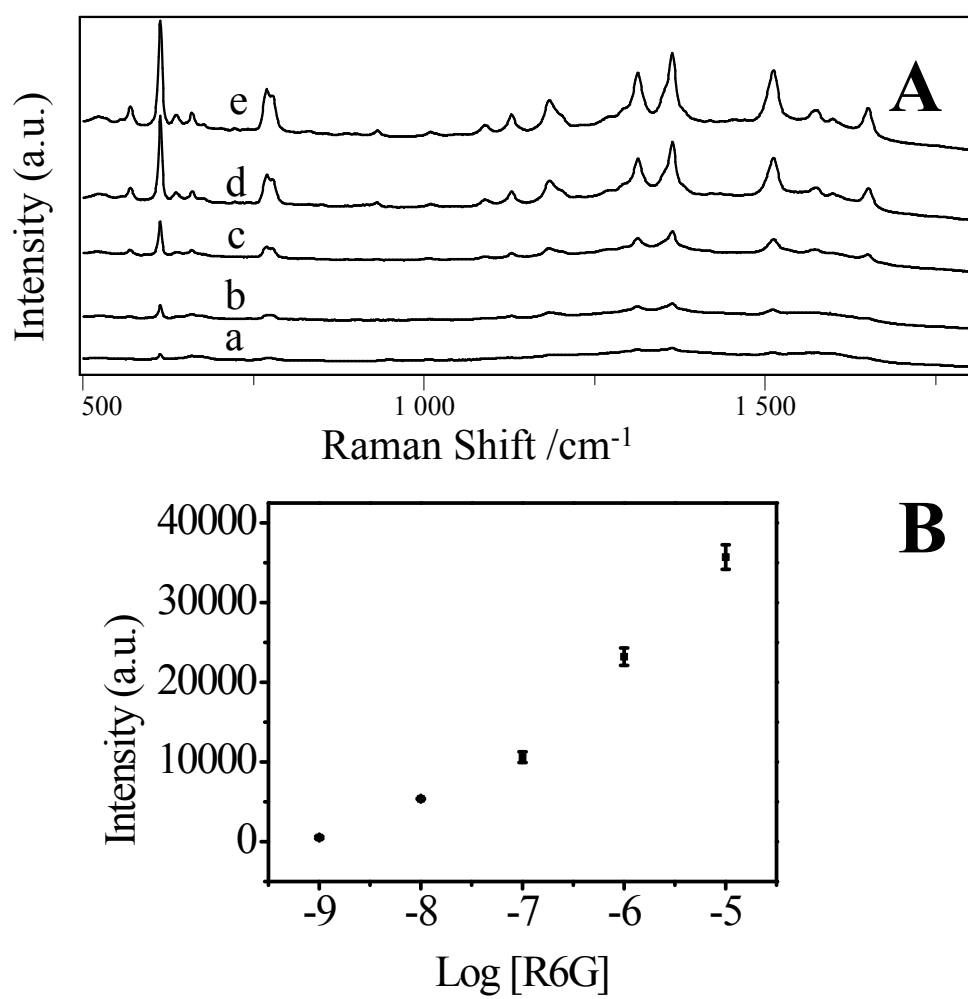


Fig. S3 (A) SERS spectra of R6G with various concentration (a) 10^{-9} M, (b) 10^{-8} M, (c) 10^{-7} M, (d) 10^{-6} M, (e) 10^{-5} M; (B) The linear relationship between the Raman intensity at 613 cm^{-1} and R6G concentration.

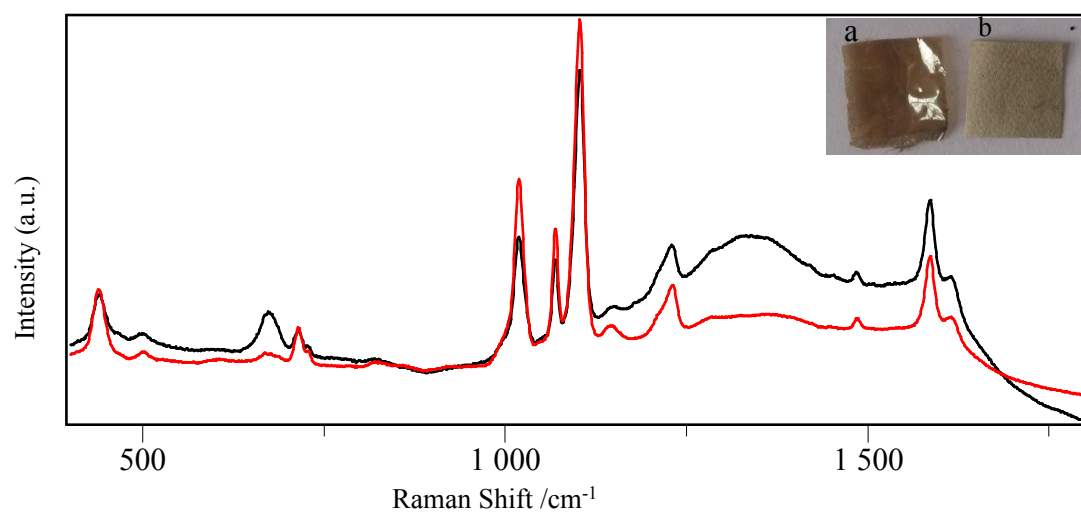


Fig. S4 SERS spectra of 10^{-6} M 4-Mpy on prepared substrates using (a) PE film and (b) filter paper as solid supports.