Electronic Supplementary Material (ESI) for Nanoscale.


# Bifunctional Au@Pt core-shell nanostructures for *in-situ* monitoring of catalytic reactions by surface-enhanced Raman scattering spectroscopy

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Supporting information:

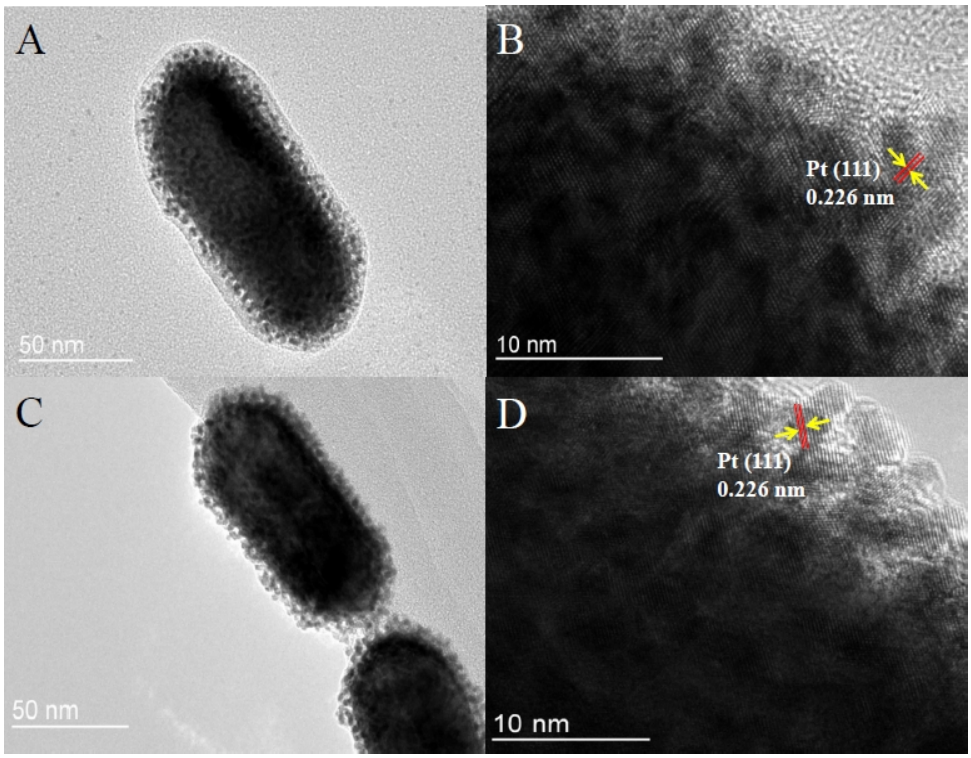


Figure S1: TEM images of Au@Pt core/shell nanostructures before (A and B) and after (C and D) three cycles. It shows that before and after catalytic reactions, the morphology of Au@Pt-d sample remains unchanged and Au and Pt are all Single-crystalline.

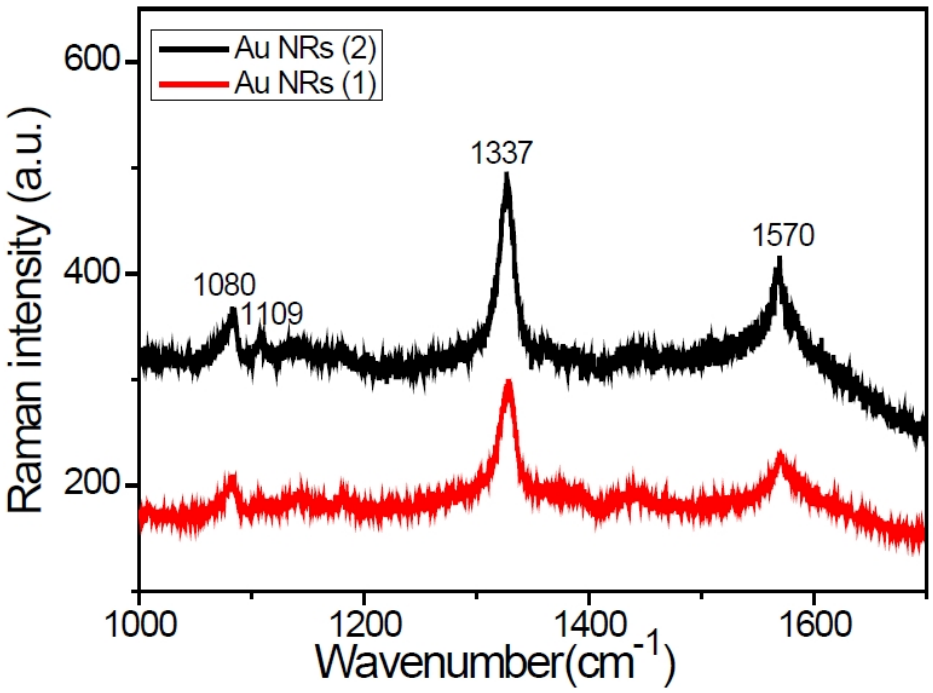


Figure S2A: SERS spectra collected for $10^{-3}$ M 4-NTP molecules adsorbed on two types of Au NRs with longitudinal surface plasmon resonance wavelength at 628 nm (black curve) and 693 nm (red curve), respectively. The laser excitation wavelength used in the measurements is 633 nm.

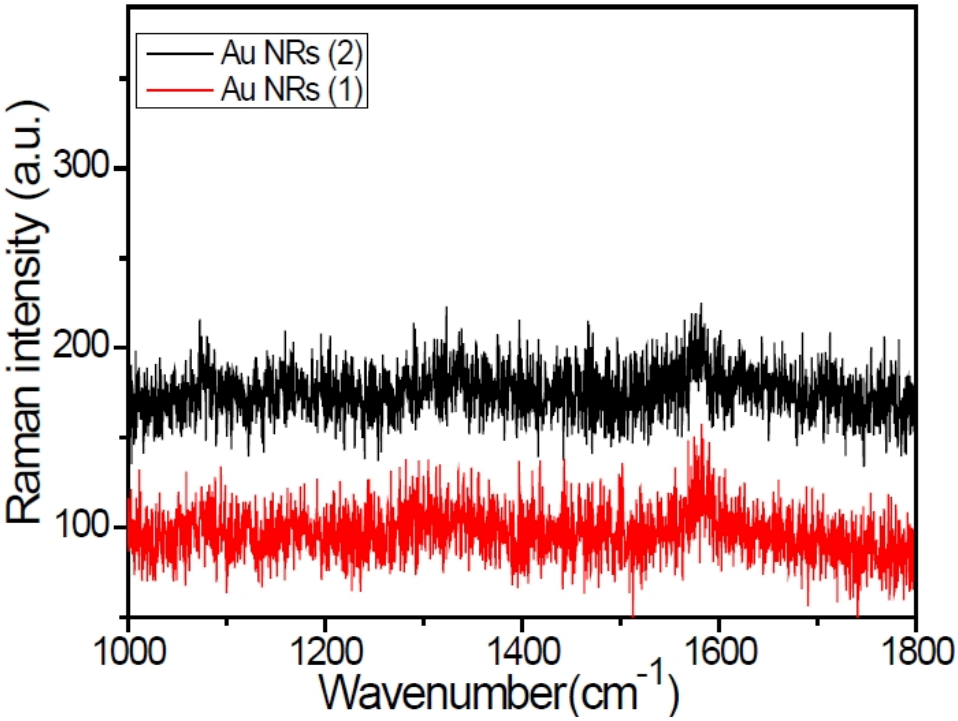


Figure S2B: SERS spectra for the same measurements as that in Figure S2A while the laser excitation wavelength is changed to 488 nm.