

Controllable charge transfer in Ag-TiO₂ composite structure for SERS application

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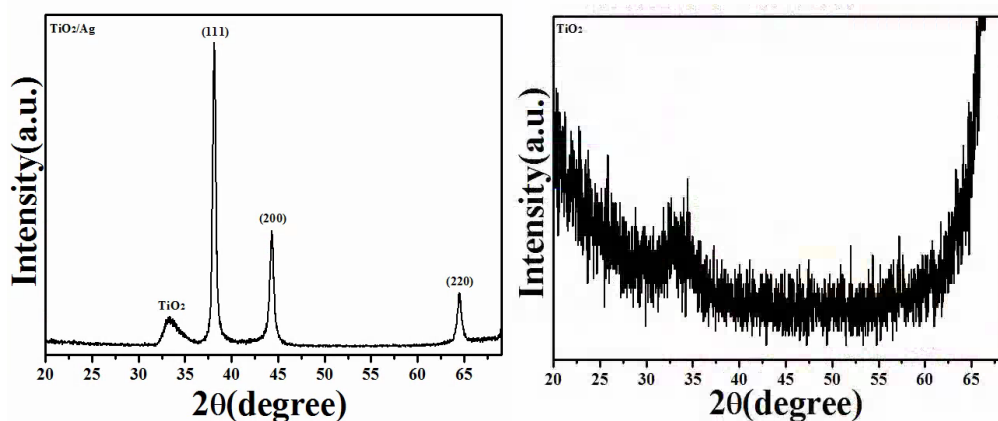


Figure S1: XRD pattern of TiO₂/Ag bilayer and monolayer TiO₂ deposited on PS200 nm template

In figure S1, the diffraction peaks at 38.1°, 44.2° and 64.4° correspond to the (1 1 1), (2 0 0) and (2 2 0) lattices in Ag with face-centered cubic structure according to JCPDS card No.04-0783, respectively. However, the broadened peak about 33° indicates titanium dioxide is amorphous, which is also confirmed by the XRD pattern of amorphous TiO₂.

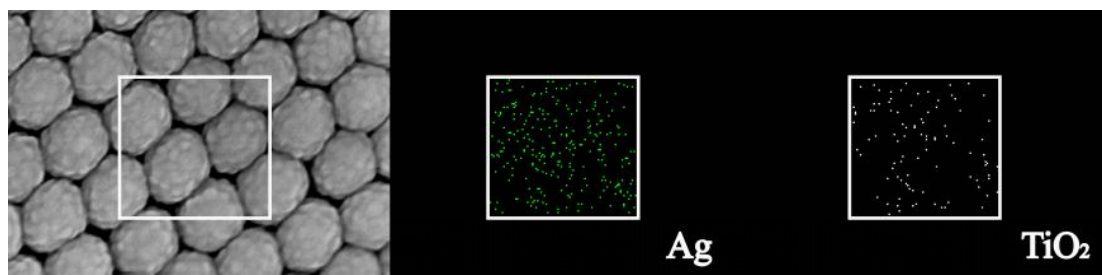


Figure S2: The element analysis mapping of bilayer TiO₂ (10 nm) /Ag (10 nm) nanocap arrays by SEM. The green and pink colors are corresponding to Ag and TiO₂ composition respectively

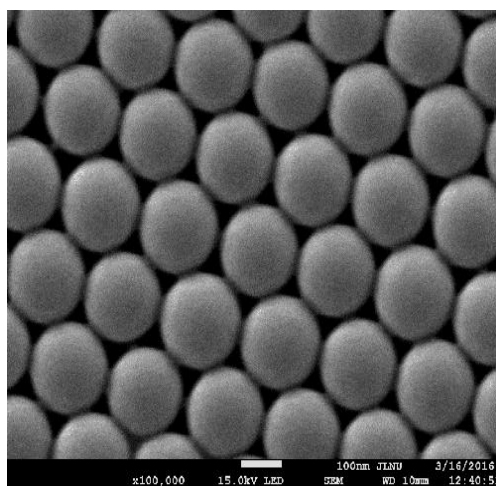


Figure S3: SEM of PS200 nm template