

Support material:

A sensitive, switchable and biocompatible surface enhanced Raman scattering-fluorescence dual mode probe using bipyramid gold nanocrystal-gold nanoclusters for high-throughput biodetection

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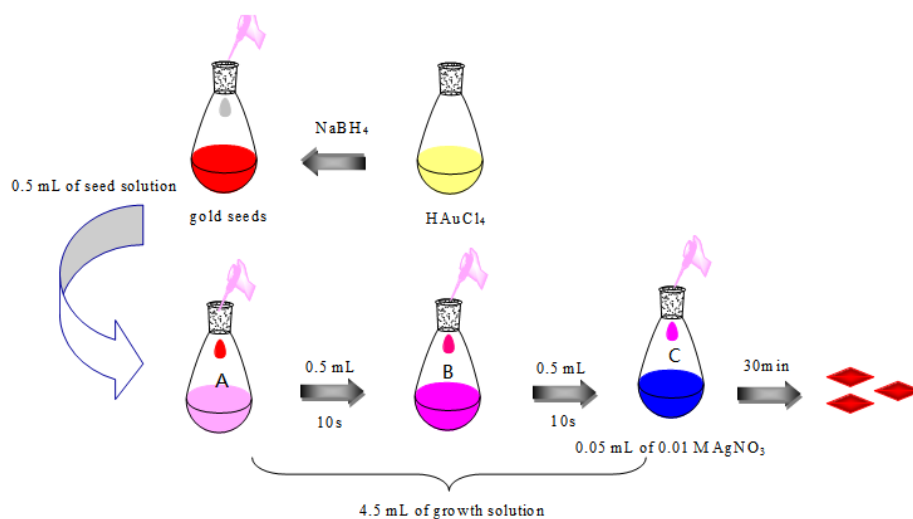


Fig.S1 Procedure for the synthesis of BPGN

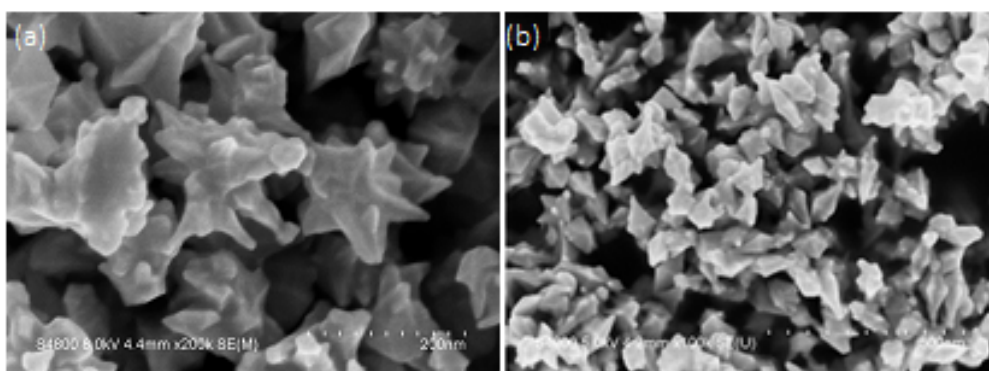


Fig.S2 SEM images of BPGNs prepared by the multi-step growth methods in absence (a) and presence (b) of SDBS

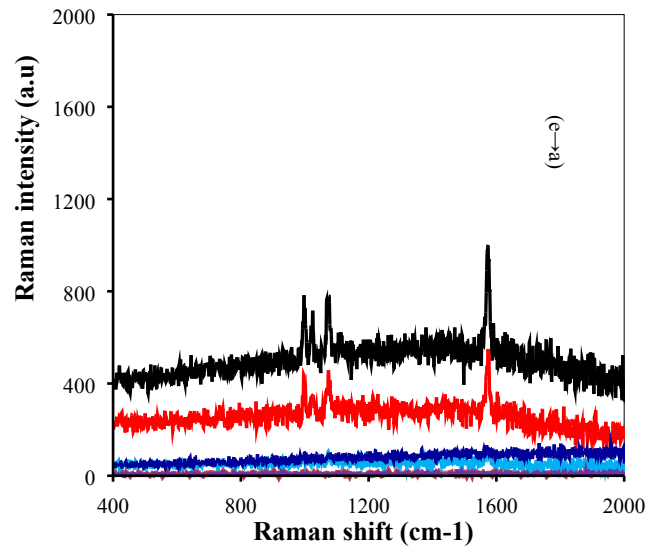


Fig.S3 SERS spectra of the BPGN/GNC with excitation wavelength at 532 nm using the excitation power of 0.001%, 0.05%, 0.1%, 0.5% and 1% total power (from a to e). The BPGN/GNC film was prepared by the method described in 2.5 section

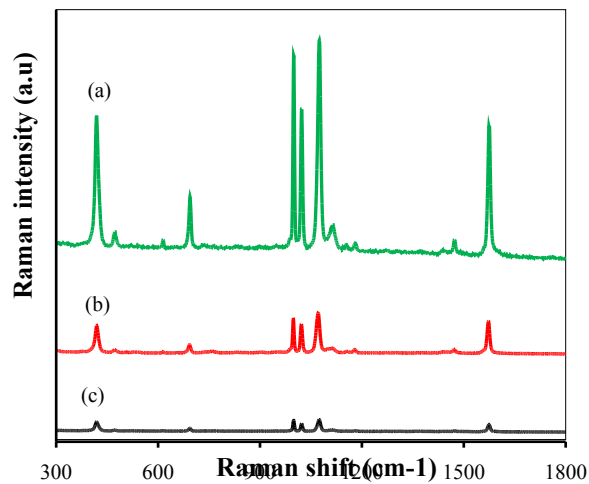


Fig.S4 SERS spectra of TP (5×10^{-6} M) in a hybrid probe using BPGN (a), gold nanorods (b) and gold nanoparticles as SERS substrates (c) with excitation wavelength at 785 nm using the excitation power of 0.05% total power. The gold nanocrystal film was prepared by the same procedure described in 2.5 section

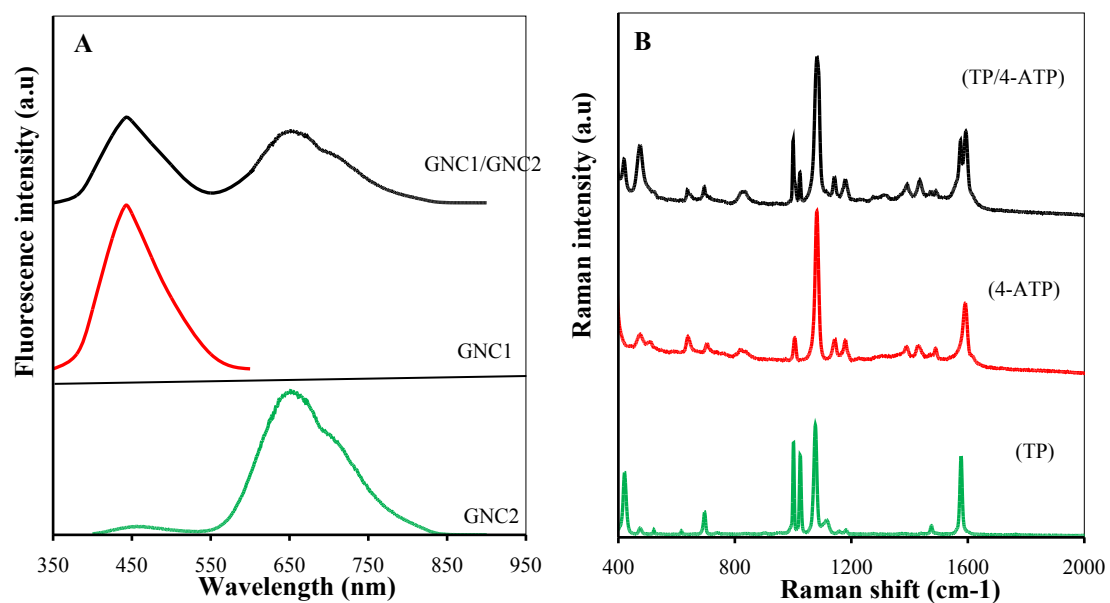


Fig.S5A: Fluorescence spectra of the probes conjugated with GNC₁, GNC₂ and GNC₁/GNC₂ with an excitation wavelength of 365 nm. B: SERS spectra of the probes conjugated with TP (5×10^{-5} M), 4-ATP (5×10^{-5} M) and TP/4-ATP (2.5×10^{-5} M/ 2.5×10^{-5} M) with an excitation wavelength of 785 nm using the excitation power of 0.05% total power