

## Article

# Microfluidics-Driven Fabrication of a Low Cost and Ultrasensitive SERS-Based Paper Biosensor

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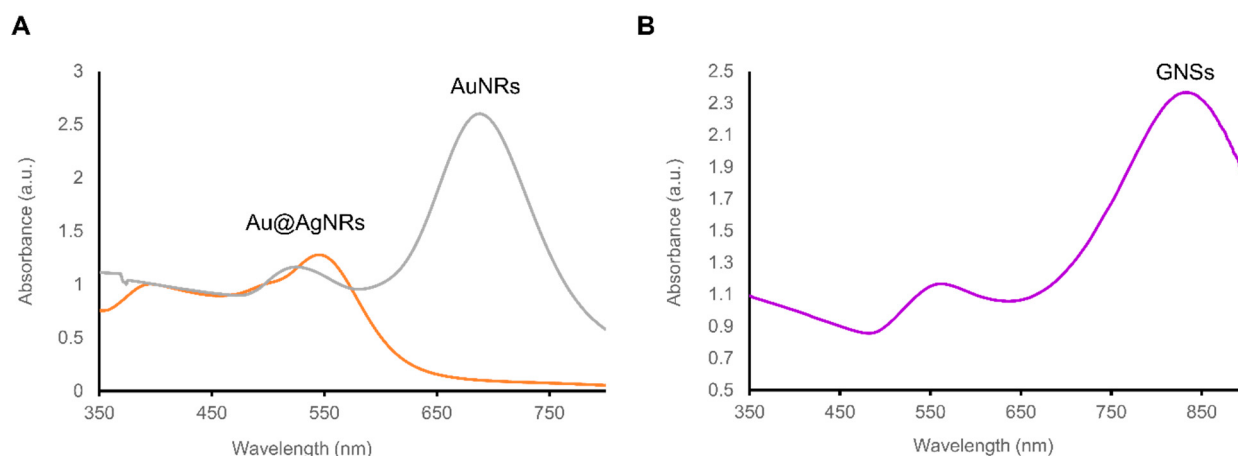
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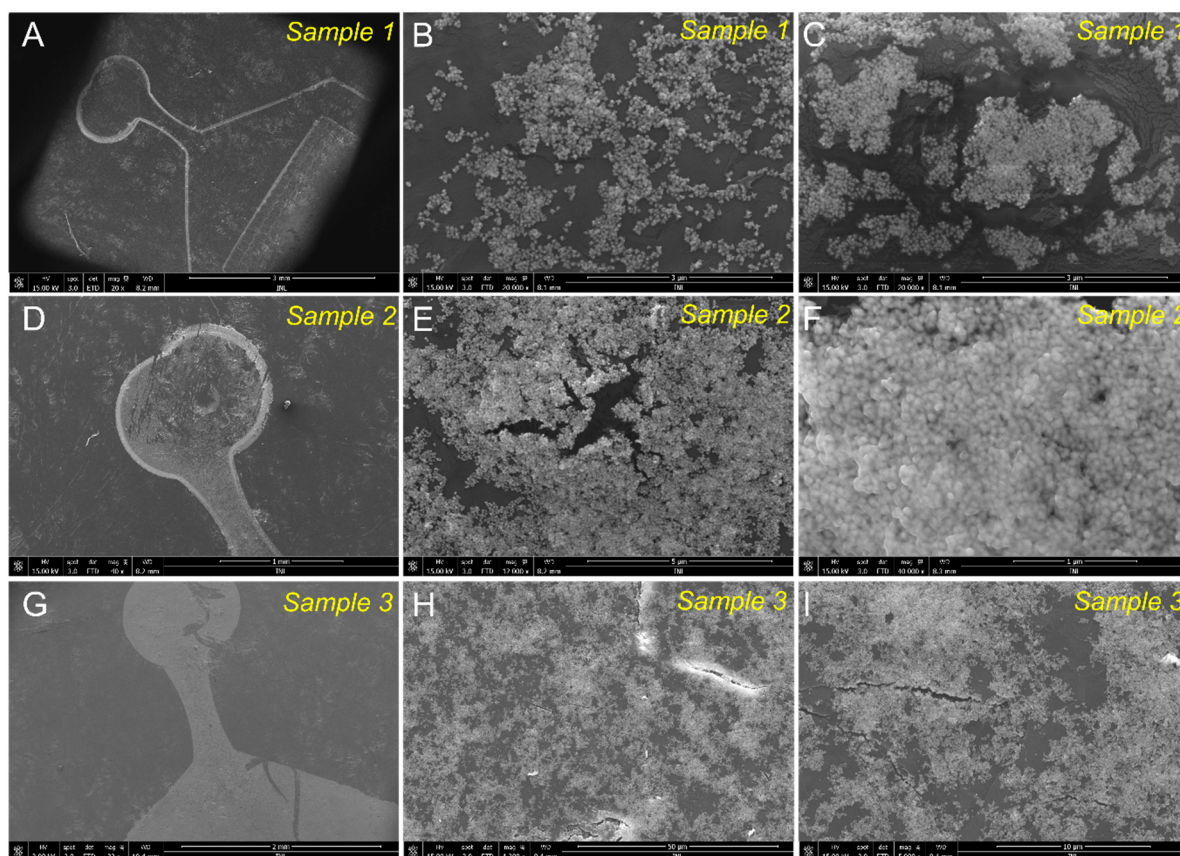
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Received: 18 February 2019; Accepted: 27 March 2019; Published: date

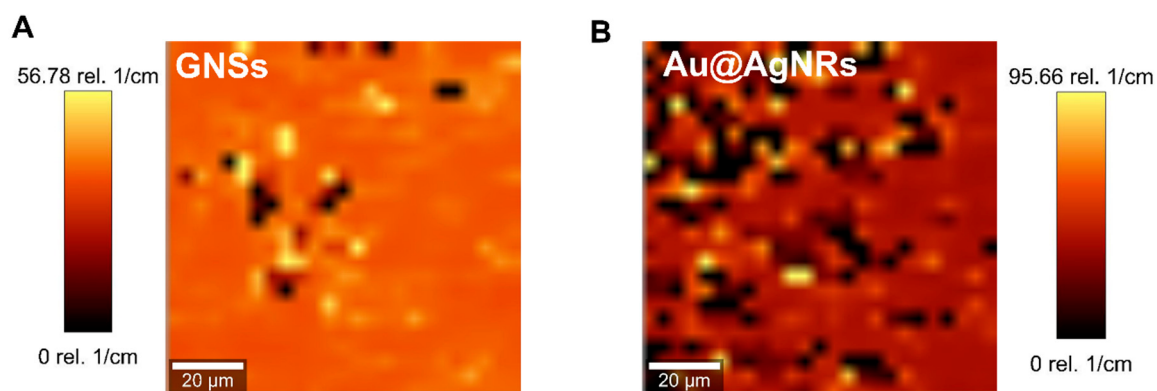


**Figure S1.** UV-vis extinction spectra of the AuNRs and Au@AgNRs (A) and of the GNSs (B).



**Figure S2.** SEM images at different magnifications for three paper substrates with GNSs fabricated in the same conditions; (A, B, C) replica number 1 at different magnifications; (D, E, F) replica number 2 at increasing magnifications; (G, H, I) replica number 3 at increasing magnifications.

**Figure S3.** Plotted average SERS intensity ( $\log_{10}$ ) and standard deviation for different concentrations of 1NAT for 5 measurements at different places of the GNSs substrate.



**Figure S4.** Mapping (100 × 100 μm; step size 4 μm) obtained by plotting the SERS intensity of the characteristic band of the 1NAT at 1368 cm<sup>-1</sup> for GNSs (A) and Au@AgNRs (B).



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