

Supplementary material

High-sensitivity SERS based sensing on the labeling side of glass slide using low branched gold nanoparticles prepared with surfactant-free synthesis

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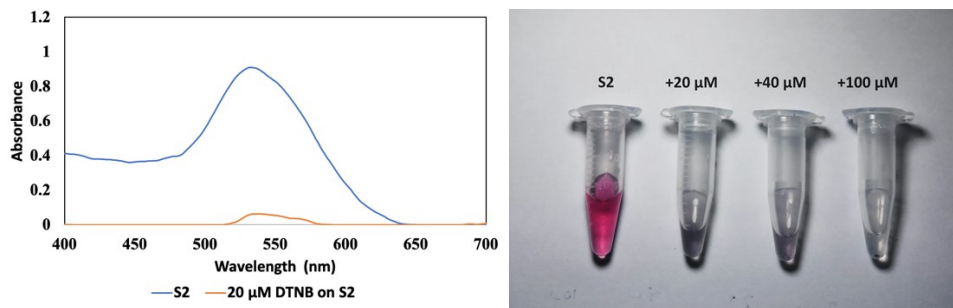


Fig. S1 UV-vis absorbance graphs for S2 solution before and after adding 20 μM DTNB (right). Images of S2 after adding DTNB (left).

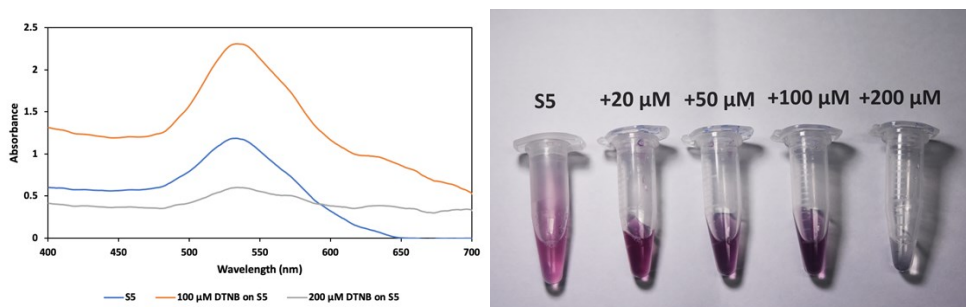


Fig. S2 UV-vis absorbance graphs for S5 solution before and after adding 100 μM and 200 μM of DTNB (right). Images of S5 after adding DTNB (left).

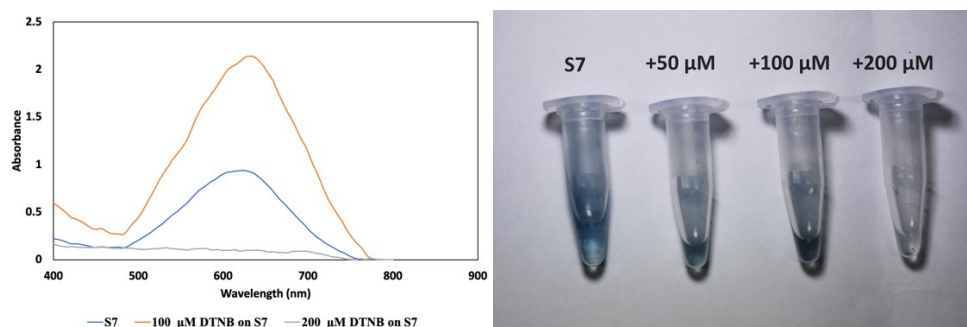


Fig. S3 UV-vis absorbance graphs for S7 solution before and after adding 100 μM and 200 μM of DTNB. Images of S7 after adding DTNB (left).

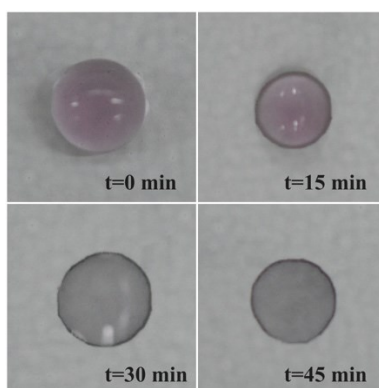


Fig. S4 Top view of droplet on white epoxy ink side of glass slide during evaporation process.

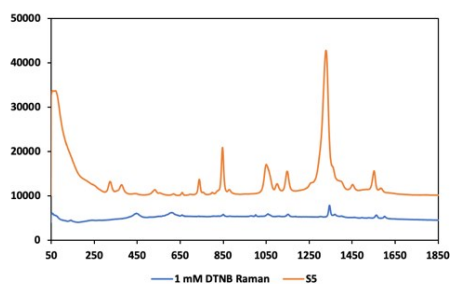


Fig. S5 SERS spectra of 100 μM DTNB on S5 sample and Raman spectra of 1 mM DTNB in 0.1 M PBS for reference.

Table S1

The calculated RSD for SERS intensity of 100 μM of DTNB modified samples (from S1 to S8) obtained from 15 random sites on the epoxy part of slide at the strongest peak (1337 cm^{-1}).

Sample Nu.	RSD
S1	28.5 %
S2	34.5 %
S3	19.9 %
S4	11.5 %
S5	1.7 %
S6	8.9 %
S7	7.7 %
S8	5.3 %

Table S2

The calculated RSD for SERS intensity of 100 μM of DTNB modified samples (from S1 to S8) obtained from 15 random sites on the epoxy part of slide at the strongest peak (1556 cm^{-1}).

Sample Nu.	RSD
S1	21.5 %
S2	35.5 %
S3	17.3 %
S4	12.3 %
S5	1.9 %
S6	6.7 %
S7	7.6 %
S8	6.4 %