Highly Reproducible Surface-Enhanced Raman Scattering Detection of Alternariol Using Silver-Embedded Silica Nanoparticles

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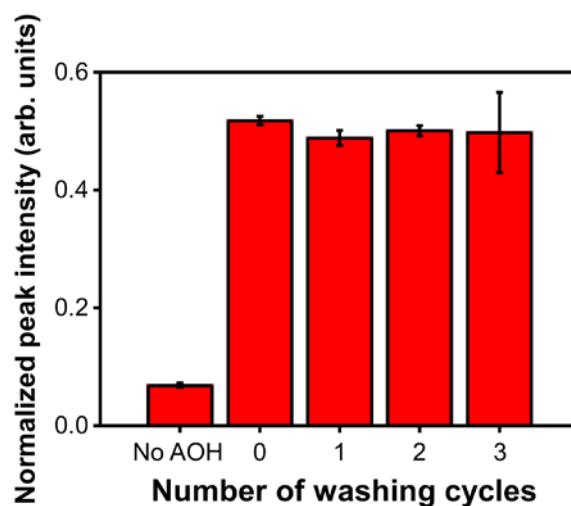
1. Supplementary.

Figure S1. SERS intensity of SiO$_2$@Ag NPs added to 10^{-6} M AOH at 1304 cm^{-1} after washing with ethanol.
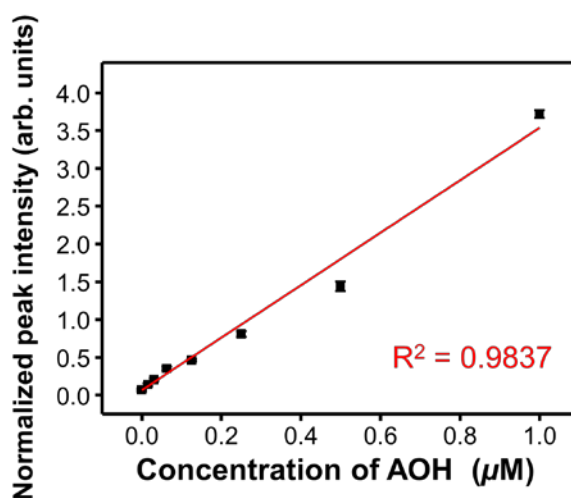

Figure S2. SERS intensity plot at 1254 cm^{-1} of SiO$_2$@Ag NPs treated with various concentrations of AOH: (i) 1.000, (ii) 0.500, (iii) 0.250, (iv) 0.125, (v) 0.063, (vi) 0.031, (vii) 0.016, and (viii) 0 μM.

Figure S3. SERS intensity plot at 1609 cm^{-1} of SiO$_2$@Ag NPs treated with various concentrations of AOH: (i) 1.000, (ii) 0.500, (iii) 0.250, (iv) 0.125, (v) 0.063, (vi) 0.031, (vii) 0.016, and (viii) 0 μM.
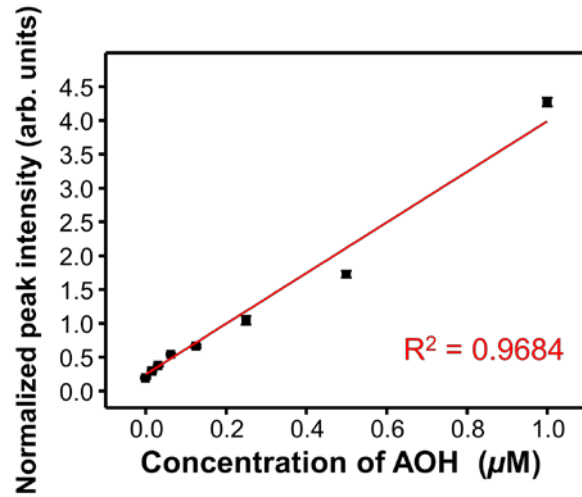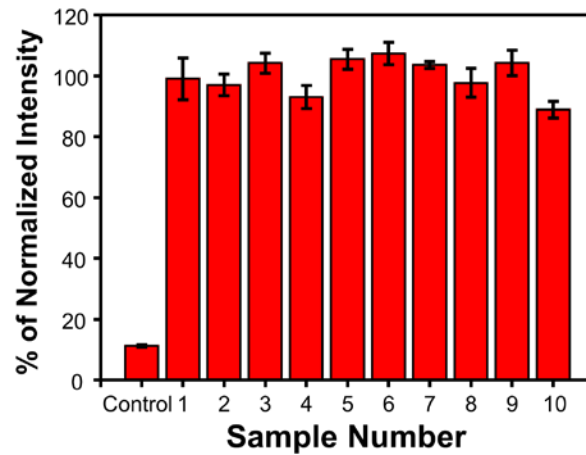

Figure S4. Reproducibility of SERS intensity at 1304 cm^{-1} collected from 10 samples of different NP batches. The samples were prepared by treating each batch of SiO$_2$@Ag NPs with 0.5 μM AOH. The relative standard deviation (RSD) was calculated as 5.65%.