

1 **Supporting information**

2 2,2,6,6-Tetramethylpiperidine-1-oxy-Oxidized

3 Cellulose Nanofiber Based Nanocomposite

4 Papers for Facile In Situ Surface-Enhanced

5 Raman Scattering Detection

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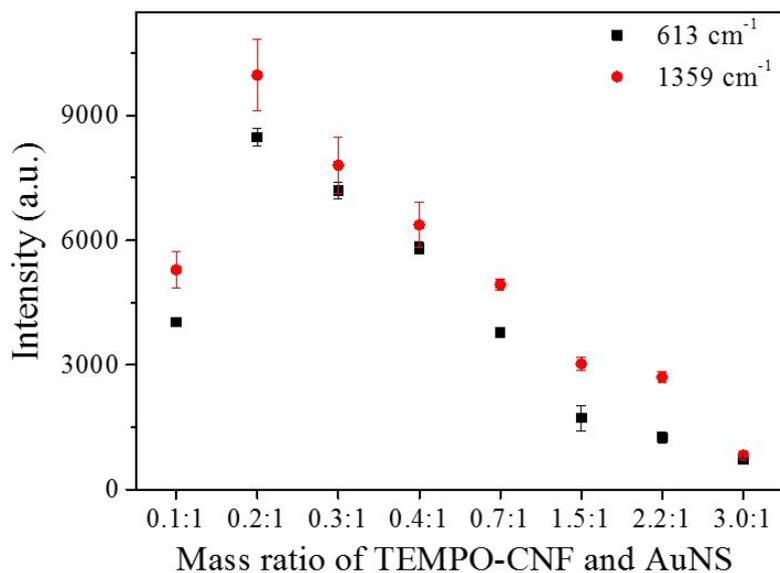
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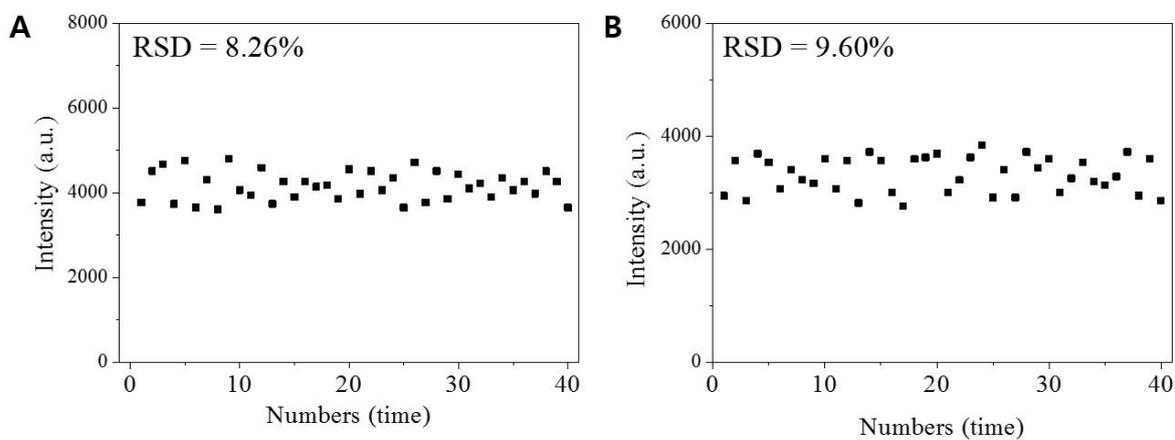
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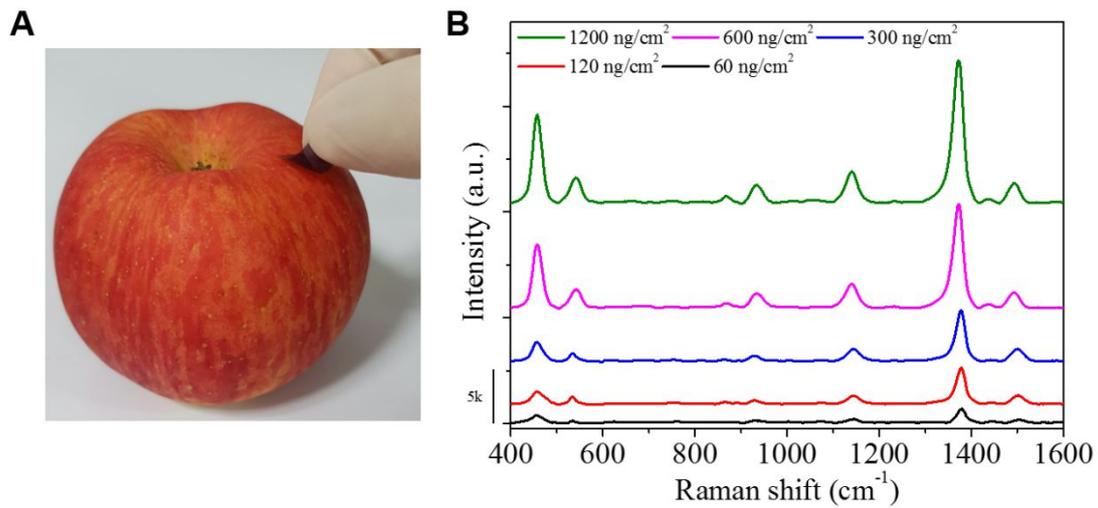
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Figure S1. SERS intensity of R6G molecules (10 μM) on TEMPO-CNF/AuNS nanocomposites as a function of mass ratio of TEMPO-CNF and AuNS in mixture solution.



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Figure S2. Corresponding SERS peak intensity of R6G molecules (10 μM) at 1508 cm^{-1} obtained on the TEMPO-CNF/AuNR nanocomposite from (A) front excitation and (B) back excitation.



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31 **Figure S3.** (A) Photographic image of TEMPO-CNF/AuNR nanocomposite swabs for detecting thiram adsorbed on an apple
32 surface. (B) SERS spectra of thiram residues (60~1200 ng/cm^2) swabbed from an apple peel.

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