

Supporting information for:

Facile detection and quantification of acetamiprid using a portable Raman spectrometer combined with self-assembled gold nanoparticle array

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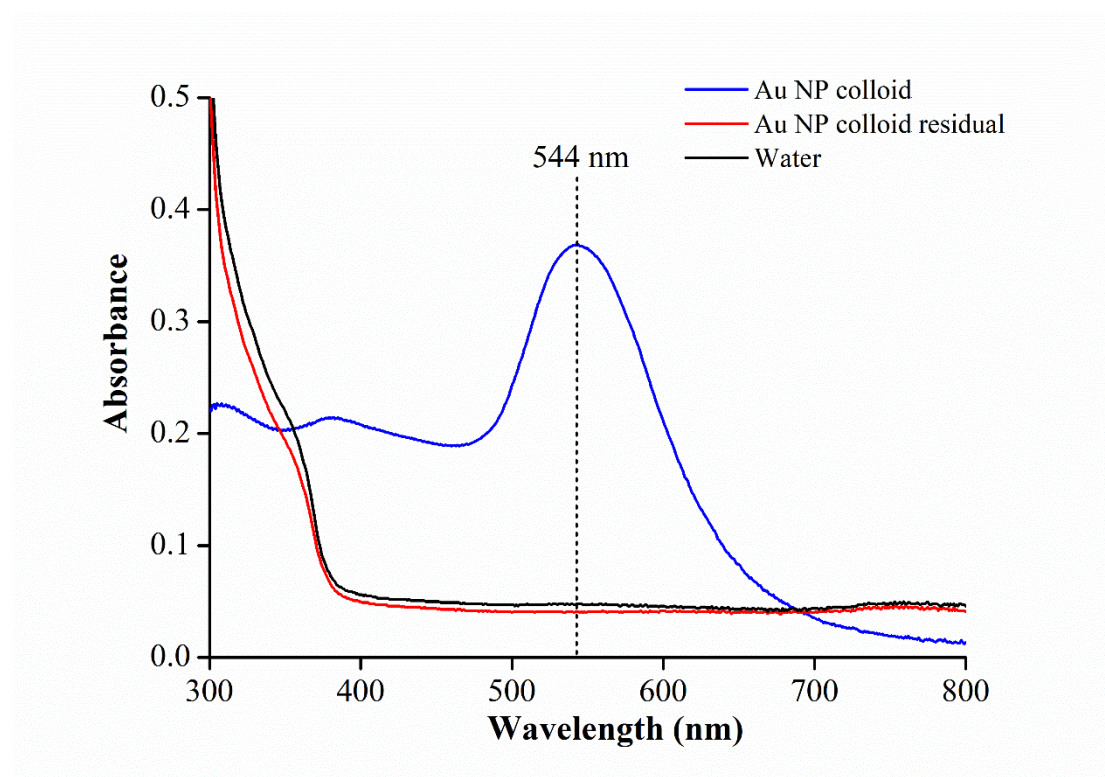


Figure. S1. UV-vis spectrum of Au NP colloid (positive control), residual of Au NP colloid after the formation of Au NP array and water (negative control).

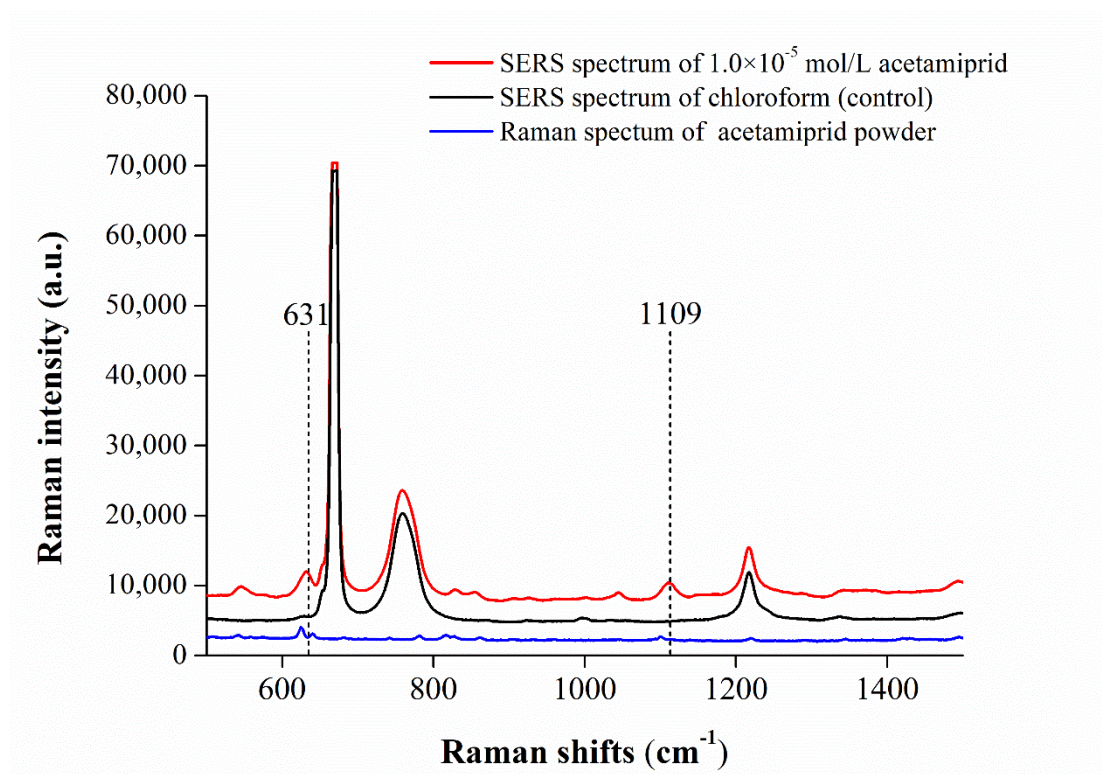


Figure. S2. SERS spectrum of acetamiprid at 1.0×10^{-5} mol/L, SERS spectrum of chloroform and Raman spectrum of acetamiprid powder.

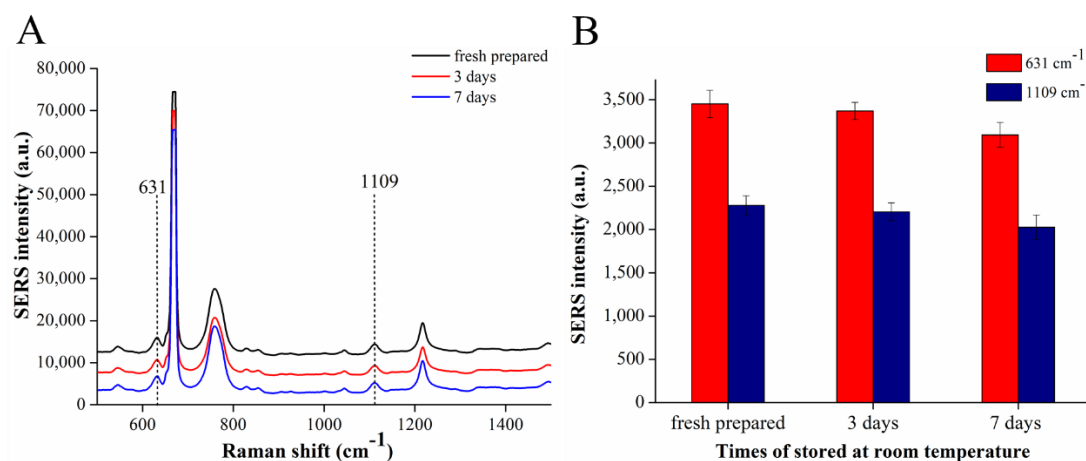


Figure.S3. (A) SERS spectra of acetamiprid collected with fresh prepared Au NP array and Au NP array stored at room temperature for 3 days and 7 days. (B) Comparison of the intensities of characteristic SERS signals of acetamiprid at Raman shift of 631 cm^{-1} and 1109 cm^{-1} .

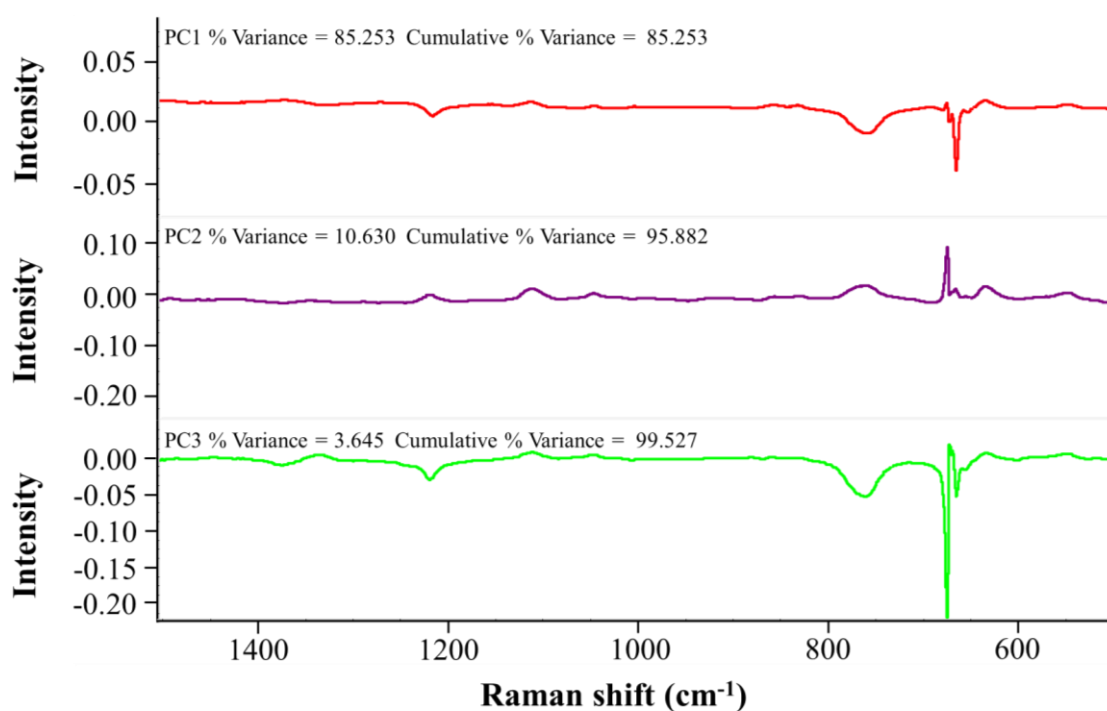


Figure. S4. The loading plots for the first 3 components which were used in PCA.

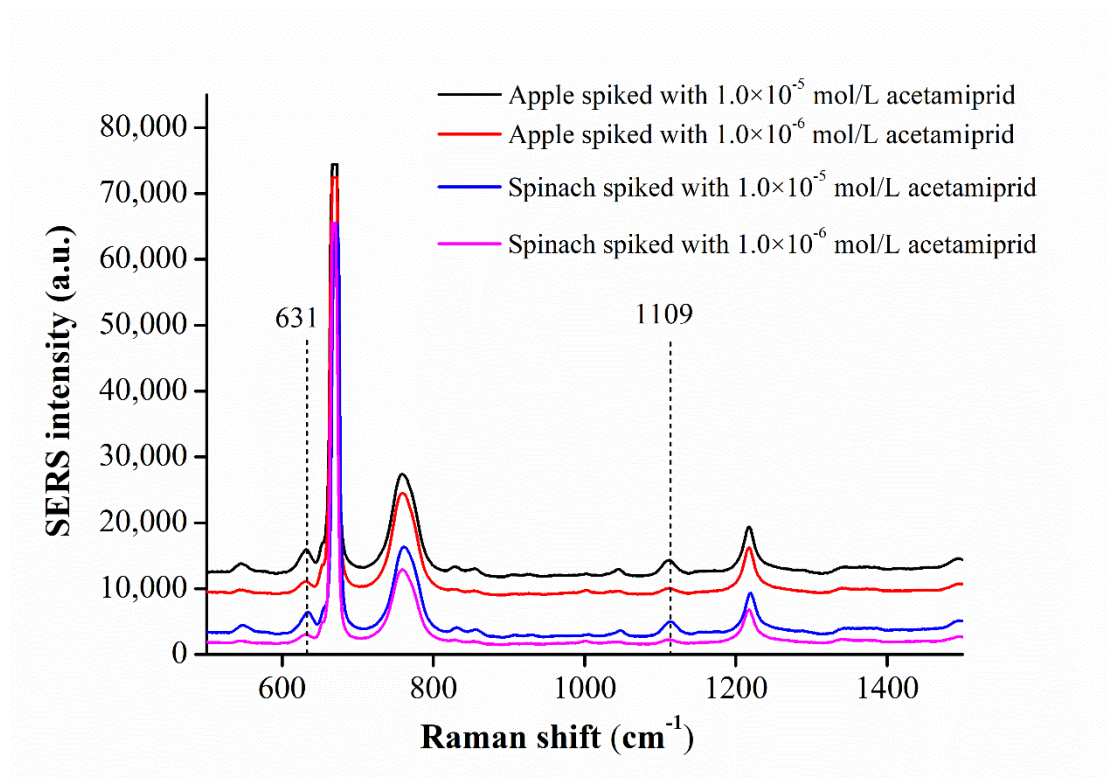


Figure. S5. SERS spectra of acetamiprid determination in apple and spinach spiked with acetamiprid at the concentration of 1.0×10^{-5} mol/L and 1.0×10^{-6} mol/L.