

Supporting information

**Surface Enhanced Raman Spectroscopic Identifications in Fingerprints Based on  
Adhesive Au Nanofilm**

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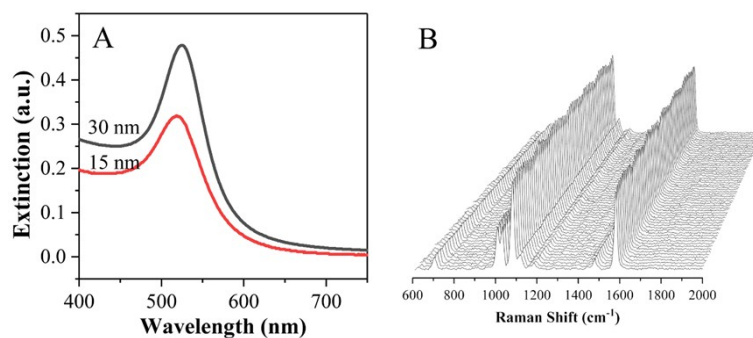


Figure S1 (A) Extinction spectra of 15 nm and 30 nm Au NPs. (B) SERS spectra of 60 spots collected in randomly selected region.

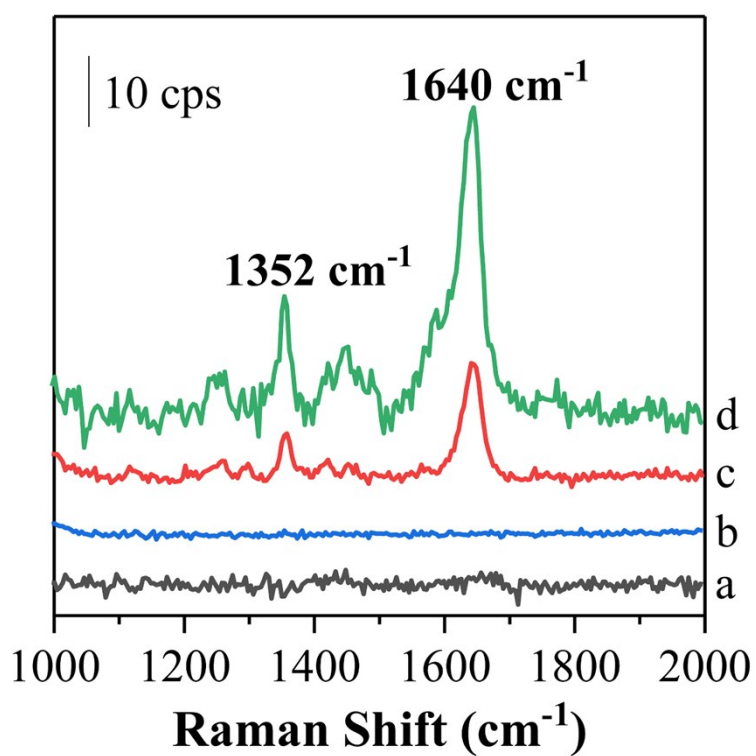


Figure S2 SERS spectra of Au MLF blank (a) and living finger on Si wafer (b), Au MLF (c), and ANF (d).

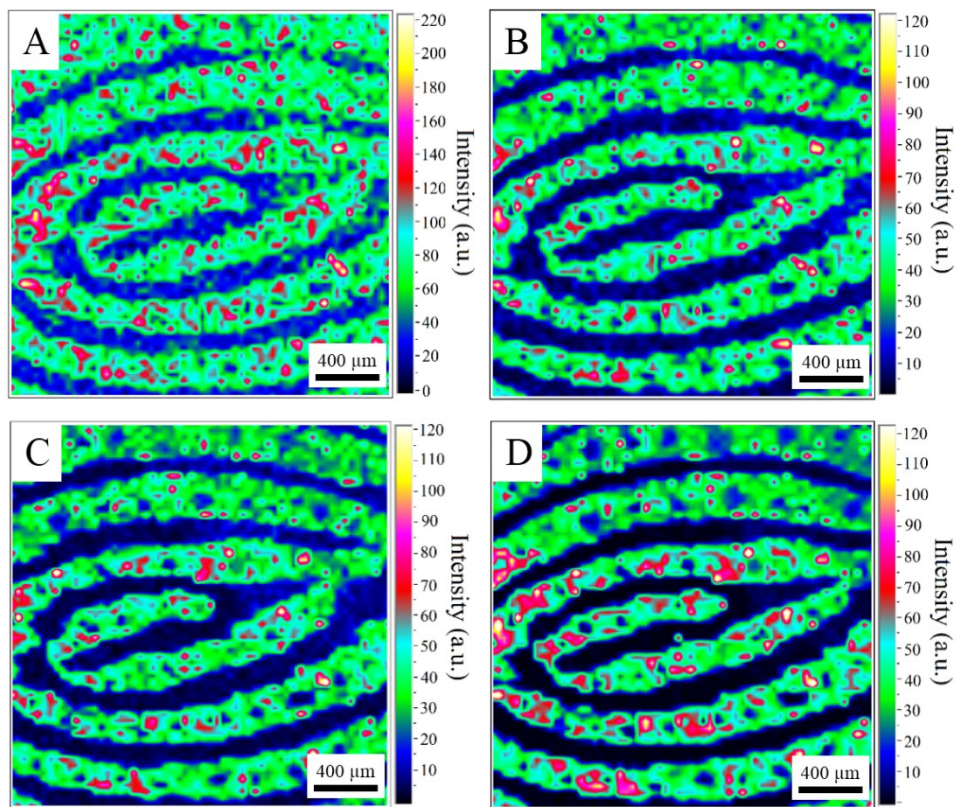


Figure. S3 SERS images of living fingerprints visualized by the intensity of peak at  $1640\text{ cm}^{-1}$  with total acquisition time of (A) 6 minutes, (B) 30 minutes, (C) 1 hour and (D) 10 hours.

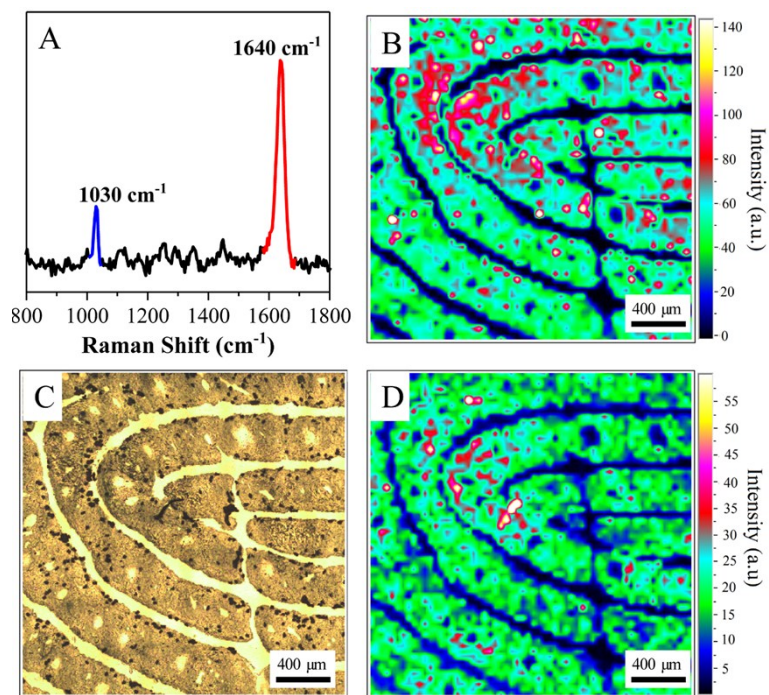


Figure S4 (A) SERS spectra acquired from the ridge of the fingerprint on ANF. (B) SERS image of living fingerprint visualized by COT at 1030 cm<sup>-1</sup>. (C) Optical image of the living fingerprint on ANF. (D) SERS image of living fingerprint visualized by 1640 cm<sup>-1</sup>.

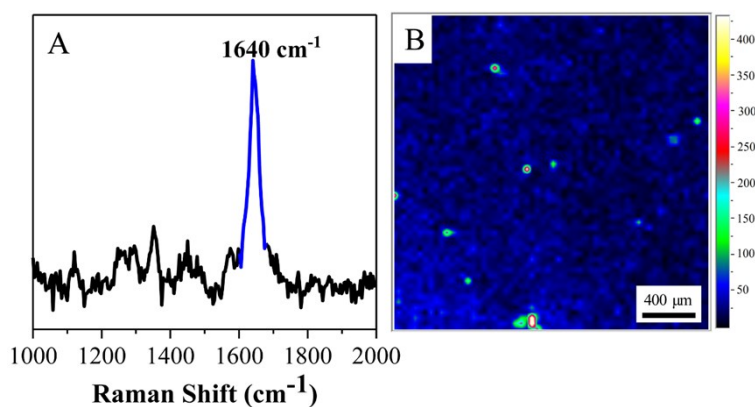


Figure S5 (A) SERS spectra of non-doped latent fingerprint acquired from ANF. (B) SERS image of latent fingerprint visualized by 1640 cm<sup>-1</sup>.