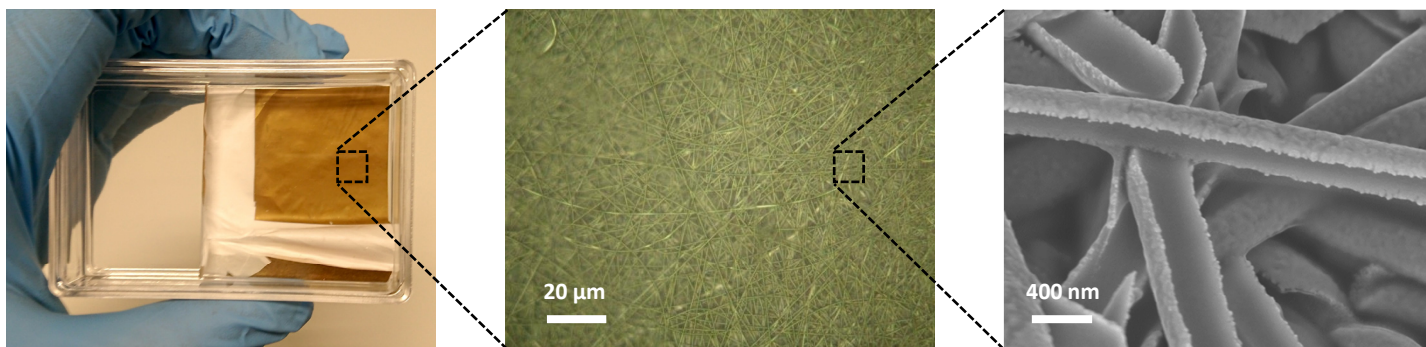




The ultrathin, flexible, stretchable, adhesive, and bio-integratable gold nanomesh that can be cut by household scissors into any shape and placed on virtually any surface for surface-enhanced Raman spectroscopy (SERS)

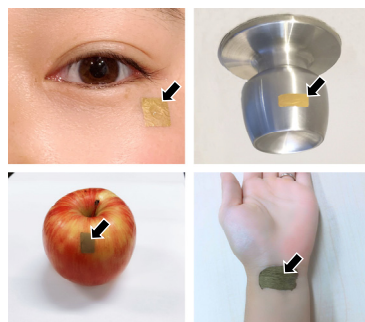


Features

- ✓ Ultrathin, flexible, stretchable, adhesive, bio-integratable
- ✓ Highly reproducible due to high density of hot spots in 3D
- ✓ Custom size by cutting with household scissors
- ✓ Attachable to any object and measurable with epi-excitation
- ✓ No sample collection or preparation required
- ✓ Double-sided

Applications

- ✓ Health monitoring
- ✓ Food safety testing
- ✓ Forensic analysis
- ✓ Environmental sensing
- ✓ Microplastic detection
- ✓ Infectious disease sensing
- ✓ Homeland security



Description

Surface-enhanced Raman spectroscopy (SERS) is a non-destructive analytical method which provides rich information about the chemical composition and structure of a sample by measuring scattered light from the sample with frequency shifts caused by molecular vibrations in the sample. It provides several orders of magnitude higher sensitivity than Raman spectroscopy by localized surface plasmon resonance on noble metal nanostructures. Compared to conventional SERS substrates, LucasLand's gold nanomesh SERS sheet (LL-01) provides previously unattainable capabilities: high flexibility, high stretchability, high adhesivity, high bio-integratability, high measurement reproducibility, custom size by cutting with household scissors, and double-sided use.

Parameter	Specification
Material	Gold/PVA
Size	3 cm x 3 cm
Thickness	Less than 20 μm
Flexibility	Up to 1000 crumpling cycles
Stretchability	Up to 150%
Excitation Wavelength	785 nm
Excitation Power	Up to 20 mW

