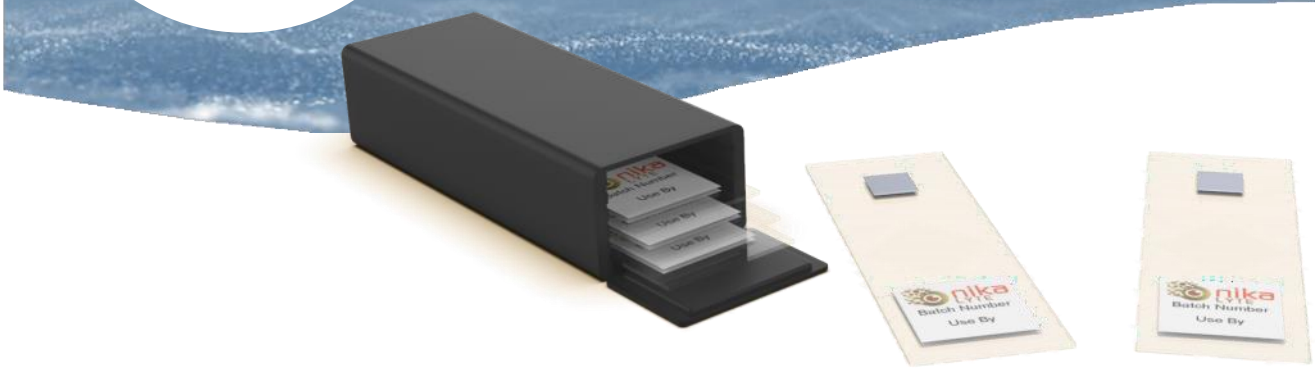
Gold Nanoparticle SERS substrates

for Raman Spectroscopy



Supercharge your Raman with ultra-pure gold nanoparticles

Surface enhanced Raman (SERS) enables the measurement of trace levels of molecules that are not detectable using standard Raman techniques. Nikalyte SERS substrates utilize gold nanoparticles generated in vacuum, which are ultra-pure and free of hydrocarbons. As no chemicals are used in the synthesis of our nanoparticles the SERS substrates are free of contamination and deliver superior sensitivity and specificity.

High sensitivity

- Several orders of magnitude enhancement in Raman signal
- Detection of ppb levels of a wide range of analytes

High specificity

- High Raman signal to noise for confident identification of similar molecules.

Ease to use

- Suitable for use in the lab or in the field

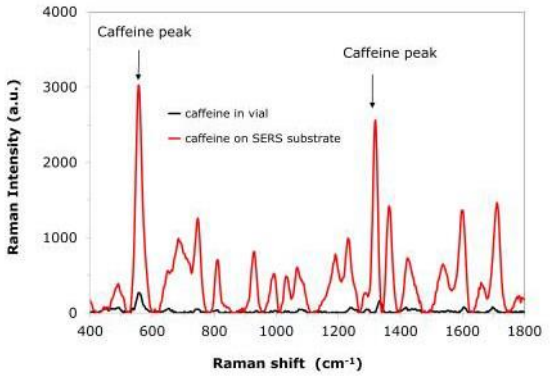
Applications include:

Narcotics ✠ **Food safety** ✠ **Pharmaceuticals** ✠ **Environmental** ✠ **Biological**

Authorized Distributor: Aurora Pro Scientific

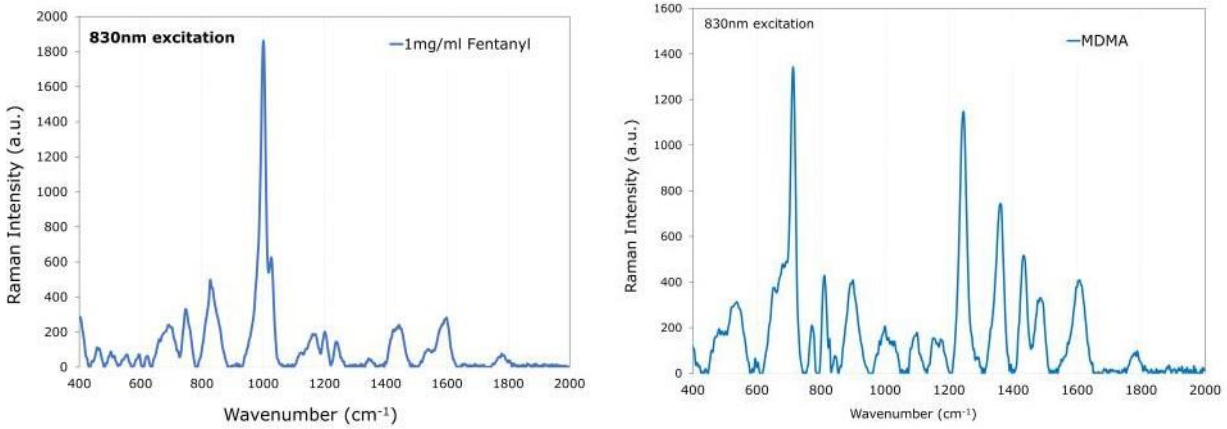
Website: wwww.auroraprosci.com | Email: sales@auroraprosci.com

Measure enhanced Raman signals compared to standard Raman with measured intensities amplified by up to 1000 times for caffeine and a wide range of different analytes.

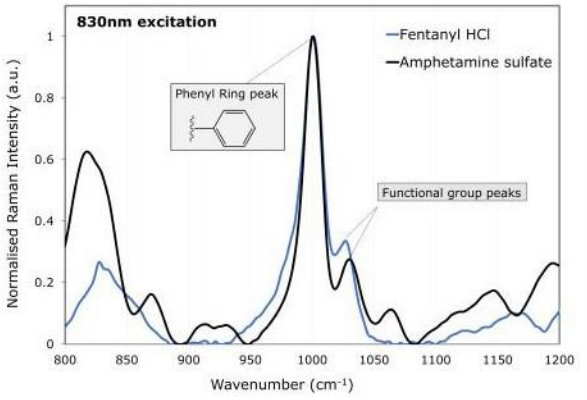


Detection of Narcotics

Nikalyte nanoparticle SERs substrates show high sensitivity for narcotics including MDMA, Fentanyl, Amphetamine, Heroin and PCP.



Raman spectrum for Fentanyl (left) and MDMA (right) measured at 830nm using Nikalyte SERS substrate



Raman spectrum for a Fentanyl and Amphetamine mix measured using Nikalyte SERS substrates

Identification of similar molecules.

The high Raman signal to noise levels exhibited by Nikalyte's SERS substrates facilitate confident identification of similar molecules such as Fentanyl and Amphetamine, where low noise is imperative for the resolution of weaker Raman peaks.

PRICING

For pricing information or to order your substrates visit

www.auroraprosci.com/nikalyte

Specification

SERS active material	Gold nanoparticles
Sensitivity	ppm to ppb
Laser Wavelength	785nm, 830nm
Max Laser power density	20W/cm^2
Dimensions	75mm x 25mm
Active area	6mm x 6mm
Pack size	5 substrates
Lifetime	3 months