



Raman SERS Wavelet™

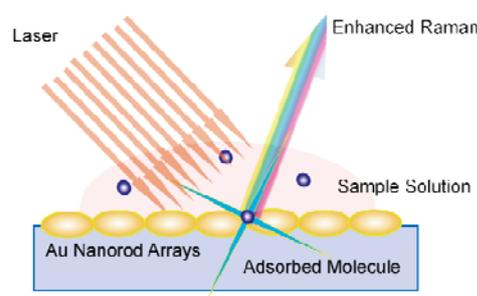
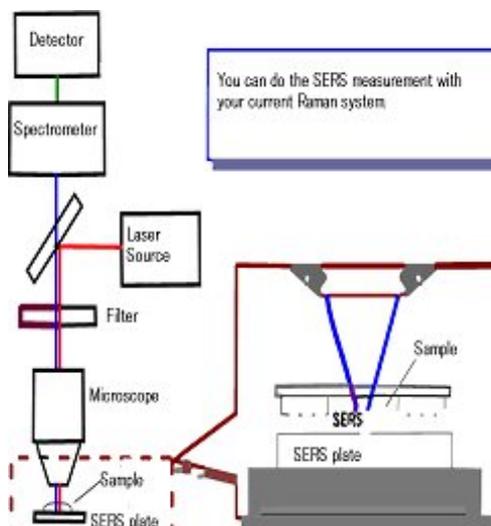
AU Nanorod Array Chips and Plates

Surface Enhanced Raman Scattering (SERS) is a powerful technique for the detection, identification, quantification and structural studies of minute amounts of samples in materials research, surface science, medical diagnostics, biophysics etc.

SERS greatly enhances the Raman signal from sample molecules adsorbed on noble-metal surfaces possessing nano scale roughness.

Intensity enhancements of approx. 10^4 up to 10^6 can be obtained routinely on gold surfaces.

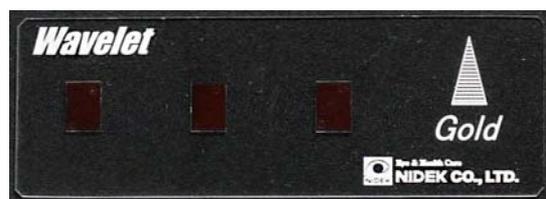
SERS provides the same information traditionally provided by Raman spectroscopy, but with a significantly enhanced signal.



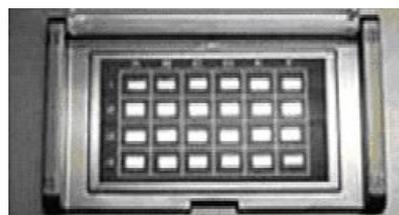
The gold Nano rods have been synthesized using oblique angle deposition on a glass substrate by depositing incident vapor at a shallow angle onto SiO_2 so that the Nano rod structures are formed by the shadowing effect.

Gold as a SERS active metal provides for the excitation of surface plasmons and the chemical and electromagnetic effects which result in the significant signal enhancement.

The **SERS** effect provides the structural information content of Raman spectroscopy together with ultrasensitive detection limits, thus allowing characterization of molecules using minimal sample amounts as well as providing extremely high spatial resolution. SERS Chips and Plates can be used with your existing Raman Spectrometer.



Wavelet Plate with 3 SERS Chips



SERS Chip Case

Wavelet SERS Chips and Plates are ideal for:

- highly reproducible and ultrasensitive measurements with your Raman system
- ultrasensitive detection and characterization of extremely low concentration of analytes
- an enhancement level sufficient for Raman single molecule detection
- trace-level analysis and identification of organic and inorganic compounds and contaminants
- analysis of analytes at low concentration in a liquid or liquid segmented microfluidic system

Configurations & Specifications

Active Surface:	Au
Active Area Chip Dimensions:	5mm x 7mm or 3mm x 4mm
Plate, External Dimensions:	76mm x 26mm (glass slide)
Recommended Excitation Wavelength:	633nm, 785nm (recommended), 830nm

List of Products and Part Numbers

SERS PLATE. GLASS SLIDES WITH MOUNTED CHIPS

Size of Chips	Amount of Chips	P/N
3.0 x 4.0 mm	1	STJ-0183-1SP
3.0 x 4.0 mm	3	STJ-0183-3SP
3.0 x 4.0 mm	5	STJ-0183-5SP
5.0 x 7.0 mm	3	STJ-0183-3LP
5.0 x 7.0 mm	5	STJ-0183-5LP
SERS Chips (chip only)		
3.0 x 4.0 mm	1	STJ-0183-SC
5.0 x 7.0 mm	1	STJ-0183-LC
SERS Chip Case		
3.0 x 4.0 mm	(fits 24 max)	STJ-0183-10
5.0 x 7.0 mm	(fits 16 max)	STJ-0183-10



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