

# SERSpace SERS substrate

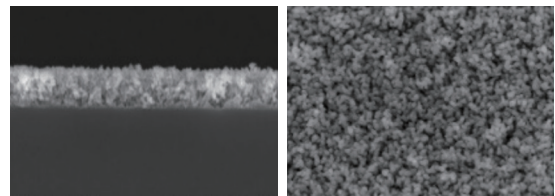
Surface Enhanced Raman Scattering (SERS) is a phenomenon that makes the intensity of a Raman scattering signal amplified much more than tens of thousands times when a molecule emitting Raman signal is on the surface of a metal nanostructure. The resonance condition of the local surface plasmon of metal nanostructures (such as Au and Ag) is made when the frequency of the incident light and the frequency of collective motion of the surface plasmon are same. In this resonance condition, the electromagnetic field induced by the surface plasmon amplifies the Raman signal of the substance attached to the surface.



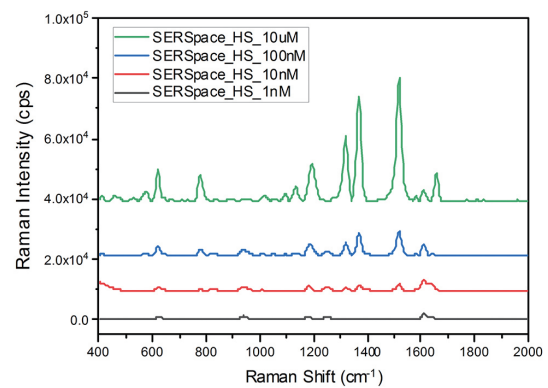
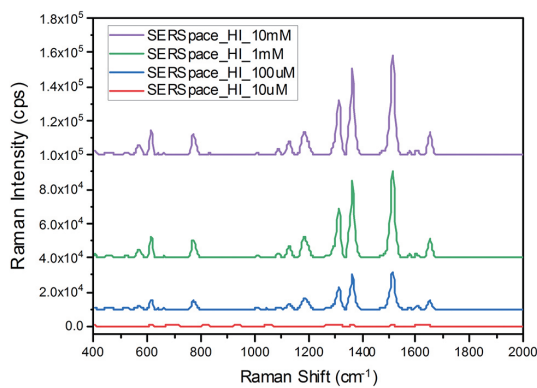
## Features & Benefits

Two types of substrates with different performance are

- HI series (High Intensity) appropriate for standard samples
- HS series (High Sensitivity) appropriate for very low concentration samples



Structure of Hierarchical Ag-nano Sphere



Characteristic comparison of HI and HS series: Rhodamine 6G (R6G)

## Specifications

Model	HI series	HS series
Characteristic	Standard	High Sensitivity
Available excitation wavelength	514 ~ 532 nm, 633 nm, 780 ~ 1000 nm, Designed for enhancement around 785 nm	

Packaging type	Slide glass	Chip
Dimension	External size	76 x 26 mm
	Active area	4 x 4 mm
Packing unit	4 slide glasses per one plastic pack	1 substrate per one PCR tube

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# NS-Raman

## RAMAN SPECTROMETER & ANALYZER

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- NS200 series** single laser micro Raman spectrometer  
**NS100 series** handheld-size Raman spectrometer  
**Ramcheck-A1** for reading SERS strip  
**SERSpace** SERS substrate amplifying Raman signal