

RAMAN REVOLUTION

Fastest Raman Imaging + Surface Profiling

RAMAN plus



www.nanophoton.jp

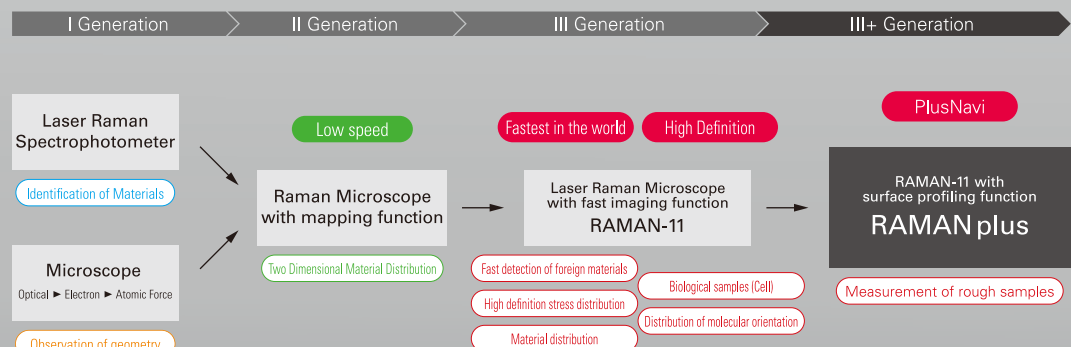
+Navigation

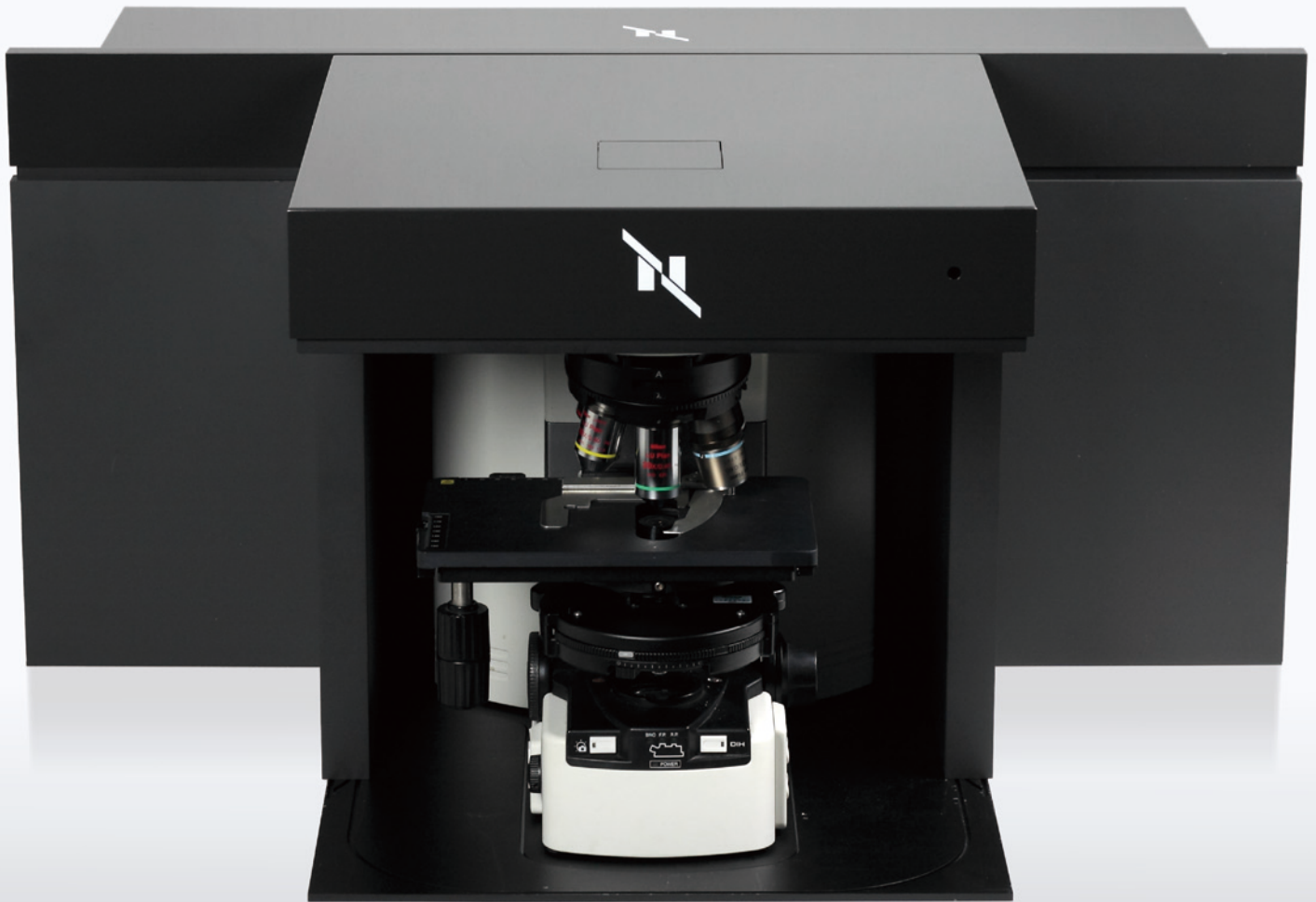
Instant navigation by PlusNavi !!

Nanophoton's innovative laser Raman Microscope, RAMAN-11, has now evolved into RAMANplus. RAMAN-11 provides the fastest and highest-definition Raman imaging capability. Nanophoton has newly developed the PlusNavi function based on the surface profiling capability of a confocal reflection microscope.

New-generation Raman Microscope PlusNavi function enables rough samples to be measured too!

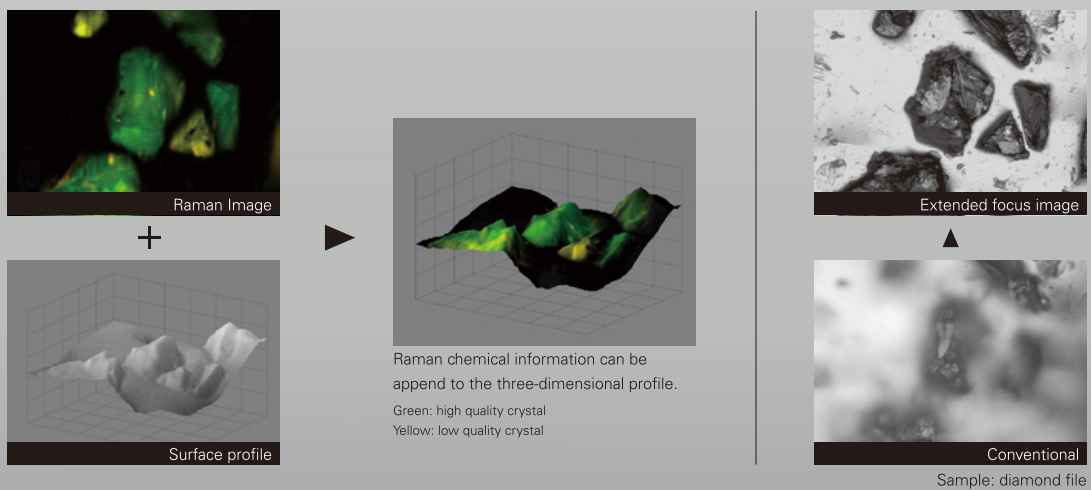
RAMANplus that was one jump ahead of RAMAN-11 by taking PlusNavi function in it, should be called the third plus generation of laser Raman microscope.





What's PlusNavi?

The PlusNavi function enables us to measure the precise three dimensional profile of the sample surface giving you the exact and vital location for Raman measurement. It can generate an extended focus image that helps you find region of interest.



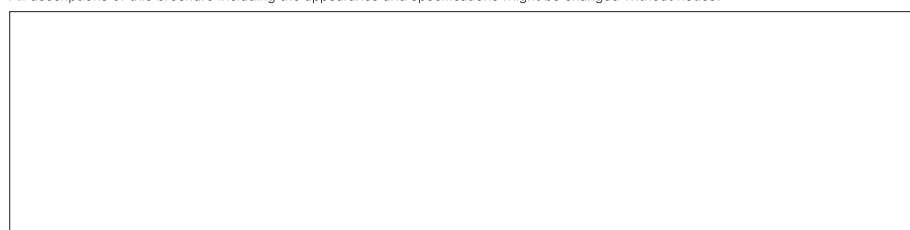
RAMAN plus, Specifications

Main components	
Optical Microscope	Upright or Inverted type, should be selected at time of order.
Scanner	Galvanometer mirrors for fast X-Y imaging. A motorized stage for Z direction scanning with 50nm step width. Illumination mode is selectable from three modes. Point focus illumination, Line-shaped illumination and flying-spot line illumination.
Laser	Standard wavelength: 532nm and/or 785nm <ul style="list-style-type: none"> • 532nm laser TEM₀₀ High brightness (500mW) High intensity stability (<2% rms) • 785nm laser TEM₀₀ High brightness (500mW) High intensity stability (<1.5% rms) *Other laser wavelengths are available upon request.
Spectrograph	Three gratings with a motorized turret Imaging spectrograph eliminated astigmatism High efficiency coating Adjustable slit width by 1μm step (10–1000μm) Focal length: 500mm Accuracy: 0.2nm Repeatability: 0.05nm
Electrically cooled CCD Detector	1340×400 Pixels Vacuum sealed (Metal seal) Cooling temp.: -70°C Read out noise: 5e rms Pixel rate: 100kHz and 2MHz Dynamic range: 16bit
Imaging performance (with an objective lens (×100, NA=0.9))	
Spatial resolution (X direction)	350nm
Spatial resolution (Z direction)	800nm
Field of view	90×120μm
Spectral resolution	1.6cm ⁻¹
Raman shift detection range	80–4000cm ⁻¹
Cofocal reflection microscope performance	
Light source	Same as the Raman microscope
Light receiving element	Line CCD sensor
Surface profile measurement	Repeatability (σ): 20nm Vertical direction measurement range: 20mm

Option

- Database (KnowItAll by Bio-Rad)
- Polarized Raman measurement
- Motorized stage for wide field of view observation
- Cooling/heating stage

All descriptions of this brochure including the appearance and specifications might be changed without notice.



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