

RAMAN MICROSCOPE - RAMAN SPECTROSCOPY



Sample analysis using the inelastic scattering (Raman Scattering) of the monochromatic light from our onboard laser, having a range of Visible, near-infrared wavelengths.

Photonic interaction with molecular and/or atomic vibrations provides a photon energy shift, the deflected light is processed using our Emerald Spectrometer, providing high-resolution spatial integrity.

Our compact benchtop imaging is designed specifically as a multi-discipline scientific analysis instrument.

The most common applications include

- Nanotechnology
- Geological
- Pharmaceuticals
- Polymers
- Forensic
- Surface Analysis

The open and flexible system design provides the ability to analyze samples without any sample preparation, having the optical microscope provides the facility to easily identify important areas for analysis.

APPLICATIONS

- Powders in Plastic packages
- Liquids in clear and Brown bottles
- Powders in multi-dimpled plates
- Liquids in multi-dimpled plates
- Slurries in multi-dimpled plates
- Samples in tubes, Vials and Cuvettes

- Tablets
- Samples in blister packs
- Surface analysis
- Organic samples analysis
- Inorganic sample analysis

FEATURES

- Maximum detail
- High resolution of Image
- Optical Microscopy
- Characterisation of small particles present
- Identification of impurities
- High detection ability
- Increased Sensitivity
- Results are able to match Library information

TECHNICAL SPECIFICATIONS

Wavelength	532 nm & 785nm
Laser Power (mW)	50-200
Power Control	yes
Detector Type	Hamamatsu

Cooling	Yes
Signal-to-Noise Ratio	300:01:00
Integration Time	5 ms - 10 min
Resolution & Range Spatial Resolution on Samples (um)	12
Spectral Resolution (cm-1)	4-10 per Pixel
Spectral Range (cm-1)	150 - 4000
Microscope Type	Upright
Objectives	4x, 10x, 40x, 60x
Stage Movement Range (mm)	79 (X) x 52 (Y) x 22 (Z)
Stage Size (mm)	175 (X) x 143 (Y)
Sample Watching ability Transparent Samples	With All Objectives
Opaque Samples	Only With 4x & 10x
Light Source	Up&Down
Box Lamp	Yes
Membrane Indicator	Yes
Power Requirements	200 - 240 V AC, 50/60 Hz, Single Phase
Chamber Weight (kg)	25
Size (WxHxD)	57.5 cm x 47 cm (without eyepiece) x 59.5 cm



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