

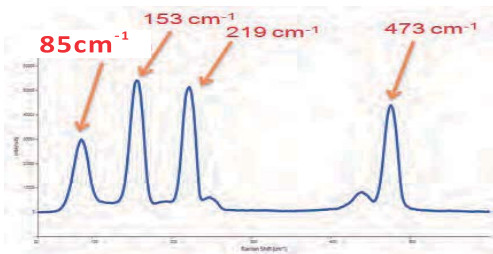


MRI
Micro Raman Identify

An Efficient Micro Raman System

MRI Micro Raman Identify

4KG



Sulfur Raman Spectra



*Versatility

MRI (Micro Raman Identify) is a cost effective research-grade system dedicated for a wide application range. The users with different backgrounds will find it suitable for chemical and spectroscopic analysis. Samples in various formats, such as solid, liquid, powder, paste, thin film and gel can all be measured with this compact system.

*Mobility

MRI is also a mobile system which can travel to carry out a field measurement: the whole system is packed in a suitcase, and the setup time is only 1hr.

*Flexibility

The design of **MRI** is aimed to be flexible to adapt different configurations, therefore the head (only 4kg) can be mounted in both vertical and horizontal orientations. Without the microscope body, the head then acts as a Raman probe. The integration of laser and optics formulates an All-in-One head which offers high precision and sensitivity in performance.

*Capacity

Steep Rayleigh Blocking

MRI is guaranteed to see the Raman shifts down to 90cm^{-1} at 532nm laser excitation and 150cm^{-1} for 785nm excitation.

*Simplicity

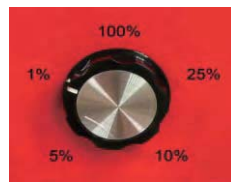
Mount Quic Laser

MRI offers an ease-swap free space laser launch that allows the users to exchange the lasers in 3 mins.

Dual control of laser power

MRI is equipped with a dual-control for adjustment of the laser power:

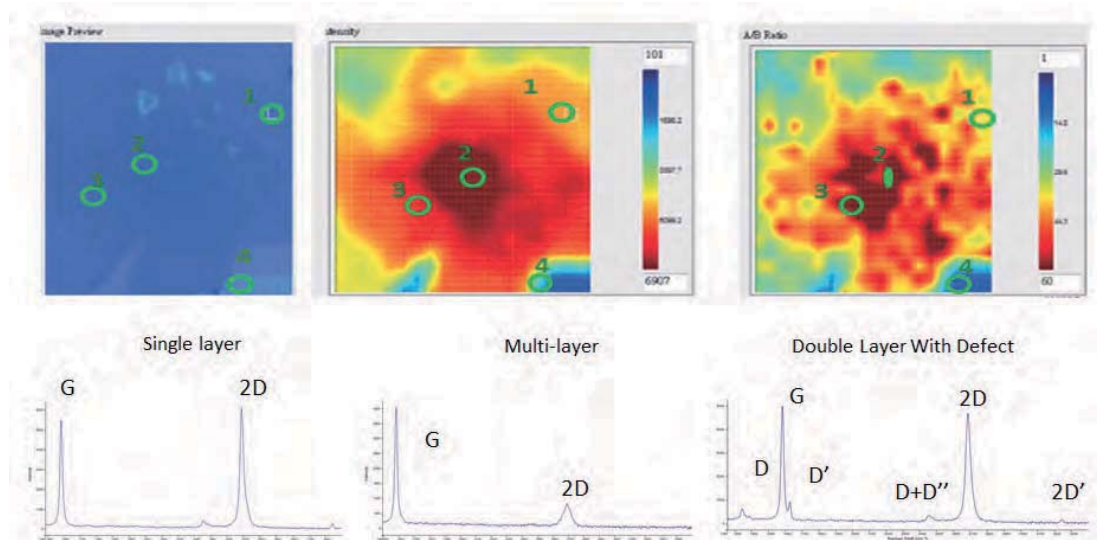
- A. Software control (step of 1mW)
- B. Manual ND filter knob control (1%, 10%, 25%, 50%, 100%)



Applications

- *Quality control
- *Chemical identification
- *Forensics
- *Material science
- *Polymer science
- *Gemology
- *Geology
- *Mineralogy
- *Environmental evaluation
- *Food
- *Pharmaceuticals
- *Life Science

*Upgradable Mapping function

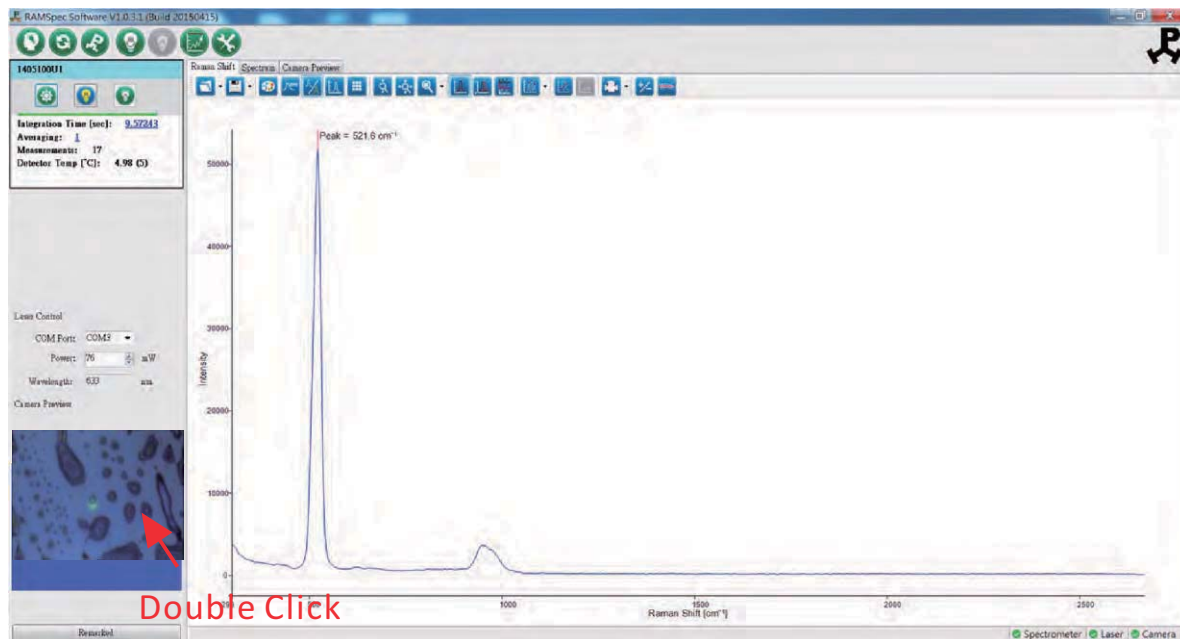


Graphene Raman Spectra

RAMSpec Software

Advantages

- * Non destructive
- * Non contact optical method
- * Almost no need for sample preparation
- * Only small amount of sample required
- * Spectral fingerprints
- * Chemical information
- * In-situ analysis
- * High throughput analysis



*Software Features

- RAMSpec** - Friendly and Smart interface, one-click for measurement optimization
- * Automatic connection of laser parameter and hardware
 - * Saturation alarm
 - * Spectral X - axis variable in nm and Raman shift (cm^{-1})
 - * Auto baseline subtraction of fluorescent background
 - * Self-check of all components
 - * Auto stand-by and pre-warming of lasers
 - * Smart dark current and environments removal
 - * Built-in spectrum wave number calibration with non-linear correction option

*Right Click Function





- * Right click easy analysis function: Find peaks, FWHM, Peak area integral, etc.

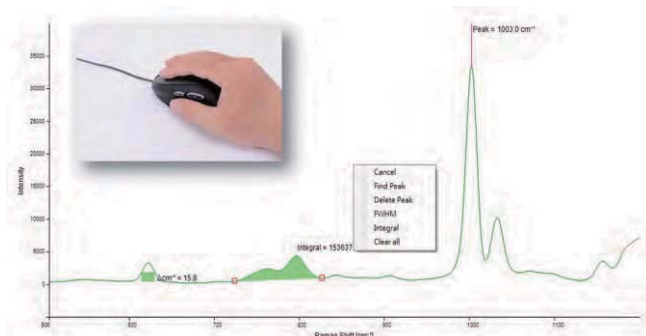
*Spectra database and spectral search

Spectroscopic data evaluation kit:

- * Panorama Pro Software (LabCognition GmbH)
- Featuring: Data optimization
- Mathematical evaluation
- Archiving in spectral libraries
- Searching in libraries
- Basic chemometric evaluation and prediction
- Conversion of many known data formats

*Smart Hotkey

-  * Intelligent scan : one-click to get the best scan
-  * Auto optimization of integration time
-  * Channel operation : tool box for subtraction, truncation...etc.
-  * Find peak by adjust the horizontal line on the screen



Spectra database:

- * ST-Japan Raman spectra database
- Available: Complete collection of 8,694 spectra
- Polymers, plastics and polymer additives
- Food additives and packaging (FDA)
- Pharmaceuticals, Drugs, Antibiotics
- Forensics
- Hazardous and Toxic Chemicals
- Flavors, Fragrances, Cosmetic Ingredients
- Pesticides
- Minerals and Inorganic Materials
- Dyes, Pigments, and Stains

Specification

Excitation Source	473nm	488nm	532nm	633nm	785nm	808nm
Power Stability @ 10 hours	<1%	<1%	<1%	<1%	<1%	<1%
Power	100mW	50mW	100mW	75mW	250mW	125mW
Range(cm ⁻¹)	From 90 cm ⁻¹ up to 3,500 cm ⁻¹ *Depends on laser wavelength					
Spectrograph	Optimized Symmetric Czerny Turner optical design					
Average Pixel Resolution	Standard:2.0cm ⁻¹ ; Advanced:1.3cm ⁻¹					
Laser Power Control	N.D. Knob Control-1%/10%/25%/50%/100%					
	RAMSpec Software Control - Continuous Step					
Rayleigh rejection	Up to 4 wavelengths					
Integration time	1.1ms-600s					
Visible Image	Auto-exposure 9M pixels real-time image with scale					
Objective	10X, W.D.=6.5mm, NA=0.25 *Standard 50X, W.D.=8.2mm, NA=0.55 *Standard 10X, W.D.=6.5mm, NA=0.25 100X, W.D.=2mm, NA=0.8 50X, L.W.D.=13mm, NA=0.55 100X, L.W.D.=13mm, NA=0.55					
White light	3W LED white light					
Dimension	195x195x130 mm (Main Head)					
Export Format	Data file export ASCII, EXCEL, BMP, JPG, SPC and PNG format					
Weight	4KG (Main Head)					

*Minimum computer requirement: Pentium 2.4 GHz CPU, 4GB RAM, 5G free hard disc, USB 2.0 port, windows XP/Vista/7



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Distributor



*Operator should wear protective goggles during operating.

*Specifications subject to change without notice.

