

Raman Accessory

BAC151B

Raman Video Microsampling System



The BAC151B is a Raman microscope that is compatible with B&W Tek Raman systems. It was designed to offer the highest level of flexibility in facilitating Raman sampling for a variety of applications. The BAC151B can be configured to fulfill the exact requirements of your application. The unique dual laser wavelength port provides the flexibility for one system to be coupled with two different laser wavelengths. The integrated camera allows for precision Raman sampling through camera monitoring of the laser beam and imaging details. When coupled with B&W Tek's portable Raman spectrometers, it provides the advantages of a Raman microscope at a fraction of the cost of most research instruments. The video head can easily be mounted to a tripod, which is available as an accessory.

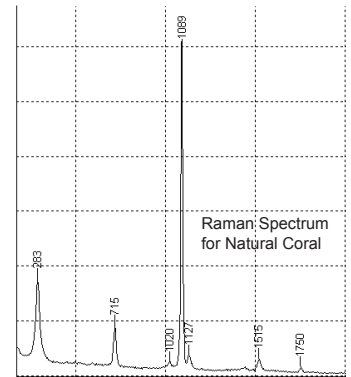
Flexibility:

The BAC151B was designed to meet your needs in Raman spectroscopic analysis. The configuration flexibility provides true convenience for applications such as SERS, forensics, art and archeology, thin film, and defect analysis.

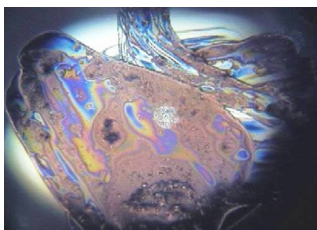
Features:

- Dual Laser Wavelength Port
- Coarse and Fine XYZ Adjustments
- Video Camera for Sampling Viewing
- Accepts standard Microscope Objectives
- Compatible with B&W Tek Raman Systems
- Tripod Mounting Accessories with 1D, 2D, and 3D Adjustment

Art / Archeology:

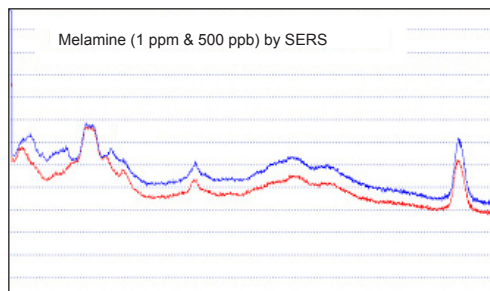


Defect Analysis:



20X Magnification of Contamination on Silicon (True Color)

SERS:



Specifications:

SYSTEM		
Wavelength	Standard	Optional
	532nm, 785nm, 1064nm	Dual Wavelengths
Raman Probe Interface	Ø3/8"	
Power Input	5VDC, 300mA	
Ambient Temperature	0 - 35°C	
Humidity	<85%RH	
Dimensions	9.6" x 8.2" x 14.8" (243mm x 208mm x 376mm)	
Weight	10.6 lb (~4.8 kg)	
MICROSCOPE		
Nosepiece and Turret	Quadruple Nosepiece	
Illumination	Epi-illuminator, LED with Condenser	
Objective Lens*	Long Working Distance, Infinite-corrected, Plan Achromatic	
Objective Lens Magnification	Working Distance (mm)	Laser Beam Spot Size (µm)
5x	26.1	420
10x	20.2	210
20x	8.8	105
40x	3.98	52
50x	3.68	42
80x	1.25	26
100x	0.4	21
Focusing	Coaxial Fine and Coarse Adjustment with Lock	
Travel in Z Direction	24 mm	
Z Adjustment	Course / Fine	
XY Stage	Double Layer Mechanical Stage	
XY Stage Size	150mm x 140mm	
Travel in X/Y Direction	75 mm (X), 50 mm (Y)	
X/Y Adjustment	Course / Fine	
CAMERA		
Sensor	Color, 1/4"	
Active Pixels	1280 x 1024	
Interface	USB 2.0	
Gain Control	Automatic	
Video Image Display	Via BWSpec™ Software	
Power Consumption	<0.6W through USB	
TRIPOD MOUNTING ACCESSORY OPTIONS		
Tripod	Tripod with 1/4"-20 Thread	
1D Adjustment with Mounting Platform	1/2" (13mm) Travel	
2D Adjustment with Mounting Platform	1/2" (13mm) Travel	
3D Adjustment with Mounting Platform	1/2" (13mm) Travel	

* Extra long working distance objectives are available upon request