



Your Photonics Partner



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Raman Accessory

Raman Video Micro Sampling System



Features:

- Compatible with all B&W Tek Raman Systems
- Dual laser wavelength port
- Coarse and fine XYZ adjustments
- Video camera for sampling viewing
- Tripod mounting accessories with 1D, 2D, and 3D adjustment
- Accepts standard microscope objectives

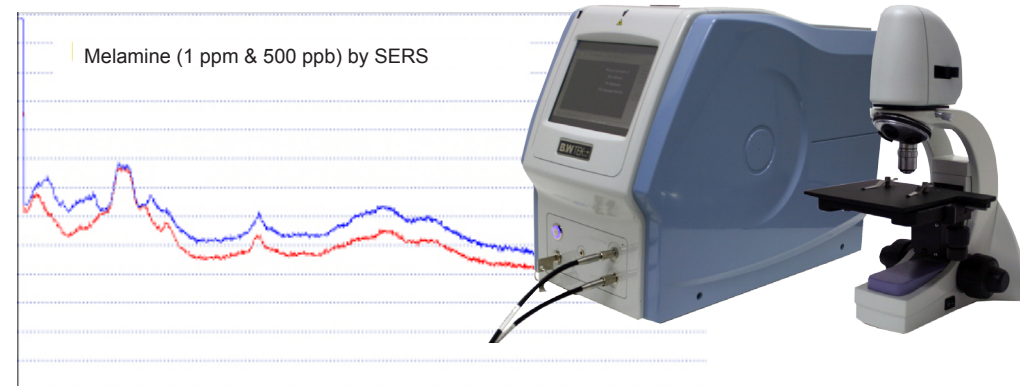
Raman Video Micro Sampling System:

The BAC151A is a Raman micro-positioning system that is compatible with all B&W Tek Raman systems. It was designed to offer the highest level of flexibility in facilitating Raman sampling in various applications. BAC151A can be configured in different ways so that the system can be tailored for the exact requirement for your applications. The unique feature of dual laser wavelength port provides flexibility for one system to be coupled with two different laser wavelengths. The integrated camera allows precision Raman sampling through camera monitoring of the laser beam and imaging details. When coupled with B&W Tek's portable Raman spectrometers, this video microscope system provides the advantages of a Raman microscopy at a fraction of the cost of most research instrument. With tripod accessories available, the video head can be mounted to the tripod easily.

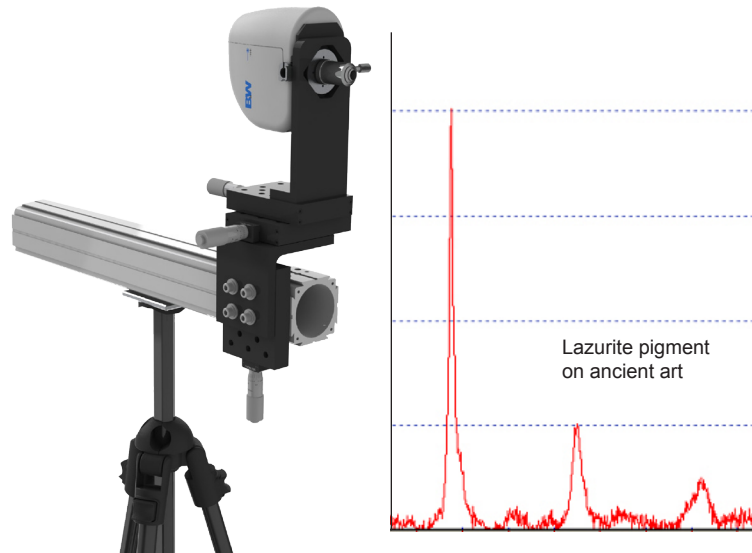
Flexibility:

BAC151A was designed to meet your application need of Raman spectroscopic analysis. The configuration flexibility provides true convenience for applications such as SERS, Forensics, Art and Archeology thin film, defect analysis, etc.

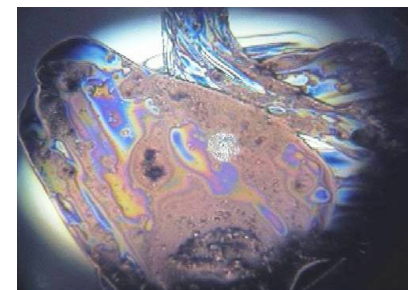
SERS:



Art / Archeology:



Defect Analysis:



Contamination on silicon
20X magnification
True color

Specifications:

SYSTEM

| | Standard | Optional |
|-----------------------|--|------------------|
| Wavelength | <ul style="list-style-type: none"> 532 nm 785 nm Custom | Dual wavelengths |
| Raman probe interface | Ø3/8" | |
| Power Input | 5VDC, 300mA | |
| Ambient Temperature | 0-45°C | |
| Humidity | <85%RH | |
| Dimensions | 243mmx208mmx376mm (9.6"x8.2"x14.8") | |
| Weight | ~4.8 kg (10.6 lb) | |

MICROSCOPE

| | Standard | Optional |
|-----------------------------|---|---------------------------|
| Nosepiece and Turret | Quadruple nosepiece | |
| Illumination | Epi-illuminator, LED with condenser | |
| Objective Lens* | long working distance Infinite-corrected Plain field achromatic | |
| | Objective Lens Magnification | Working Distance (mm) |
| | 5X | 18.30 |
| | 10X | 8.90 |
| | 20X | 8.70 |
| | 40X | 3.70 |
| | 50X | 2.02 |
| | 80X | 0.96 |
| | | Laser Beam Spot Size (µm) |
| | | 192 |
| | | 93 |
| | | 91 |
| | | 39 |
| | | 21 |
| | | 10 |
| Focusing | Coaxial fine and coarse adjustment with lock | |
| Travel in Z direction | 24 mm | |
| Resolution in Z direction | 1 µm | |
| XY Stage | Double layer mechanical stage | |
| XY Stage Size | 150mm x 140mm | |
| Travel in X/Y direction | 75 mm (X), 50 mm (Y) | |
| Resolution in X/Y direction | 2 µm | |

CCD CAMERA

| | |
|---------------------|---------------------------------------|
| CCD type | Color, 1/4" |
| Active pixels | 768x494 (NTSC); 752x582 (PAL) |
| Viewer display | 720x480 max (NTSC); 720x576 max (PAL) |
| Interface | USB 2.0 or 1.1 |
| Gain control | Automatic 36dB |
| Shutter speed | 1/60 – 1/100,000 |
| Video image display | Via BWSpec™ Software |
| Power consumption | <1.3w through USB bus |

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



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To find out more:

Contact our Application Team for your unique solution

Let us run your sample! - Feasibility Studies Available

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