Apollo Raman

Microspectrometer Module

Superior Raman Microspectroscopy

The future of Raman microspectroscopy is here: CRAIC Apollo™ Raman from CRAIC Technologies offers multiple laser wavelengths, superior performance and ease of use. Incorporating robust lasers with high sensitivity Raman spectrometers and advanced spectral analysis software in a compact package, CRAIC Apollo™ Raman represents a significant advance in flexibility and power for Raman microspectroscopy.

Featuring a unique all solid-state design, our Raman microspectrometer is modularly designed to be combined with multiple laser purchases and then added to a microscope. Each unit is optimized for a particular laser and units may be integrated together on the microscope for Raman microspectroscopy. The Raman microspectrometer may also be upgraded easily by simply adding the modules you require.

In addition to being used as a standalone unit, Apollo Raman can be added to CRAIC UV-visible-NIR microspectrophotometers. This gives you the ability to take Raman spectra, in addition to UV-Vis-NIR reflectance, absorbance and fluorescence spectra of microscopic samples. No other instrument in the world has this capability to combine so many analytical techniques.

CRAIC Apollo™ Raman Key Features:

- Multiple lasers can be combined on single instrument
- Permanently aligned for ease of use
- Single point and Raman spectral mapping
- Can be added to CRAIC microspectrophotometers
- Can be added onto many microscopes

CRAIC TECHNOLOGIES

CRAIC Apollo™ Raman Spectrometer

Microspectroscopy Stages

- ❑ Manual XY
- ❑ Rotating, 360deg/30mm x 40mm
- ❑ Semi-Rotating stage, up to 240deg
- ❑ Programmable XY Stage

Raman Objectives

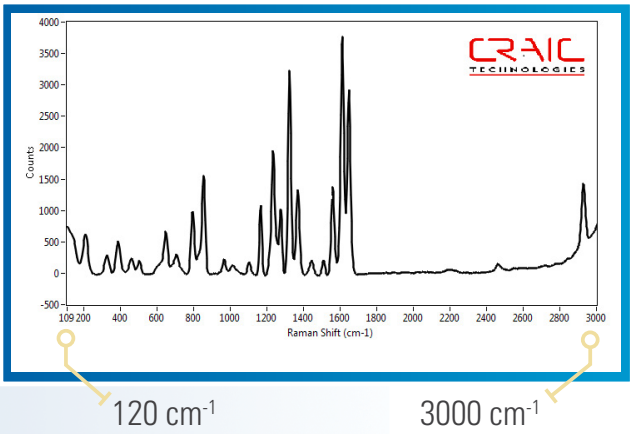
- ❑ 20x visible-NIR
- ❑ 50x visible-NIR
- ❑ 100x visible-NIR

Laser Wavelengths*

❑ 405 nm	❑ 473 nm
❑ 488 nm	❑ 532 nm
❑ 638 nm	❑ 660 nm
❑ 785 nm	❑ 830 nm

CRAIC Apollo™ Raman Spectral Range

Raman spectra of active pharmaceutical ingredients of a 14 µm area of a tylenol tablet.



CRAIC Apollo™ SPECIFICATIONS

Excitation Source	
Wavelength (nm)	405*, 473*, 488*, 532*, 638, 660, 785, 830
Bandwidth	< 0.02 nm
Output Power	50-100 mW)**
Spectrometer	
Spectral Range	120 to 3000 cm^{-1}***
Spectral Resolution	6 cm^{-1}***
Sampling Area (20x)	14 µm
Detectors	
Type	TE cooled CCD
Integration Time	8 ms to 10 minute
A/D Resolution	16 bit
Dynamic Range	25000
Electronics	
Interface	USB 2.0
Input power	110-220 VAC

** Specified wavelengths have an Output Power of 50 mW. **ND Filter available for lower output*
****Actual range and resolution determined by system configuration.*
[1]As we are continually striving to build better instruments, the specifications are subject to change without notice.

Multiple Libraries Available

- ❒ Forensic Spectra Database
- ❒ Dyes, Pigments, and Stains Spectra Database
- ❒ Minerals and Inorganic Materials Spectra Database
- ❒ Pharmaceuticals, Drugs, and Antibiotics Spectras
- ❒ Polymer and Polymer Additives Spectra Database
- ❒ Semiconductor Chemicals Spectra Database

System Software

- ❒ Spectral Database Search
- ❒ Spectral 3D Mapping
- ❒ Thin Film Thickness Measurement
- ❒ TimePro Kinetics™

Accessories

- ❒ Raman Polarization
- ❒ Wavelength Standards
- ❒ Intensity Standards

CRAIC TECHNOLOGIES

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