

## **Progeny X2 Dual Laser Portable Raman**



#### SETTING NEW BENCHMARKS IN:

- Range of measurable materials
- Performance and portability
- Flexibility of sampling
- · Ease of use

# Flexibility that follows your samples and needs: for laboratory, mobile and teaching applications

The Progeny™ X2 dual-laser Raman instrument redefines the traditional process of bringing a sample to an instrument for analysis by offering the ability to bring the instrument wherever it is needed. You have the ability to set up methods and identify materials in your laboratory; take the instrument into a mobile laboratory to get closer to your samples; or use Progeny X2 as a practical Raman spectroscopy teaching tool that follows your classrooms and curriculum. With the unique combination of two excitation lasers and battery operation, you now have the ability to measure a wider range of materials, while addressing the need for sensitivity in challenging

samples. Progeny X2 minimizes fluorescence, thus enlarging the breadth of compounds you can measure and eliminates the complexities involved with instrument alignment and installation procedures.

- No installation necessary; compact footprint
- Nondestructive, qualitative and semi-quantitative analysis
- Molecular spectroscopy and crystallinity information even through glass and polymer containers with the capability to measure water-based solutions

#### LABORATORY APPLICATIONS

Progeny X2 fits your unique application requirements. Now you can optimize sampling sensitivity by choosing the dual-laser configuration best suited for your material analysis:

- 1064nm for highly fluorescent samples, colored materials and measurements through colored glass containers
- 785nm for non-fluorescent samples that require high sensitivity for semi-quantitative analysis

#### MOBILE LABORATORIES

When you need molecular spectroscopy capabilities on-site, either in a mobile laboratory or in a temporary facility near an investigation site, Progeny X2 offers laboratory instrument performance in a portable package. The all-in-one design includes a dual-laser spectrometer, on-board local control software, plus the convenience of battery operation. This combination allows you to collect data and obtain preliminary information from the instrument built-in computer. When in-depth analysis is required you can easily transfer and analyze data using a desktop computer via Wi-Fi or USB connectivity.

Progeny X2 Specifications	
Laser wavelength source	Dual 1064nm & 785nm
Dimensions (mm)	138W x 274D x 98H
Weight	3.7 kg (8.1lbs.)
Grating	Transmission volume phase (VPG™) with 95% efficiency
Focus	Variable focal point adjustment
785nm Wavelength	
Spectral Range (cm <sup>-1</sup> )	200 - 2000
Spectral Resolution (cm <sup>-1</sup> )	7 - 10
Laser Output Power (mW)	30 - 490
Detector	TE cooled CCD
1064nm Wavelength	
Spectral Range (cm <sup>-1</sup> )	200 - 2000
Spectral Resolution (cm <sup>-1</sup> )	15 - 18
Laser Output Power (mW)	30 - 490
Detector	TE cooled InGaAs
Operation and Analysis	
Software	Micro 2020, Windows XP/Vista/Win7
Log-In Process	Multi-user level expiring passwords
Analysis Speed	Exposure (automatic or user adjustable) 785: 20ms - 30s 1064: 20ms - 10s
Analysis Display	Simplified pass-fail, spectra (overlay possible), or full analysis display
Results Display	Pass-fail, or identification (with HQI)
Data Transfer	USB2.0/WiFi
Export File Format	spc, csv, and pdf
Data Storage Capacity	14.9 GB
Battery Type/Life*	Li ION rechargeable/>1hr
Sample States	Powders, liquids, solids
Spectral Library	
Standard (260), user library,	and 3rd party library (optional)
Miscellaneous	
Compliances	IQ/OQ/PQ & 21 CFR part 11
Safety Compliance	CE
Compliance Standards	ASTM
Power	100-240VAC/+24VDC
Ambient Temperature (C°)	-10 to 30

TEACHING AND ACADEMIA

Because Progeny X2 can be carried into classrooms. teaching Raman spectroscopy has never been easier. With the ability to explain the difference between excitation lasers and fluorescence effects. while demonstrating the Raman advantage -Progeny X2 offers a unique way to complete your molecular spectroscopy curriculums as an affordable, reliable, portable Raman teaching tool.

#### THE DUAL WAVELENGTH ADVANTAGE

Progeny X2 is the world's first portable, dual wavelength Raman analyzer designed to minimize fluorescence and optimize sensitivity on demand. Equipped with sampling accessories for solids, liquids and powders, Progeny X2 can perform analysis directly through sample containers without altering or destroying the sample. Users are able to perform rapid qualitative and semi-quantitative analysis and monitors reactions and reduction directly through clear or amber-colored glass.

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