

PRORAMAN-L

HIGH PERFORMANCE RAMAN ANALYZER

The ProRaman-L Series are high-performance laboratory Raman instruments suitable for industrial applications or laboratory experiments requiring an affordable, high sensitivity Raman instrument.

The ProRaman-L features a high sensitivity CCD spectrograph with CCD cooling temperature to -60°C , and high throughput laboratory fiber optics probes. Each system includes a notebook computer preloaded with RamanReader software for operation. The excitation laser are available at 532 nm and 785 nm.

The ProRaman-L instruments are ideal for demanding Raman analysis in academic, research, industrial laboratories and process line requiring an affordable, high performance Raman instrument.



Features and Benefits

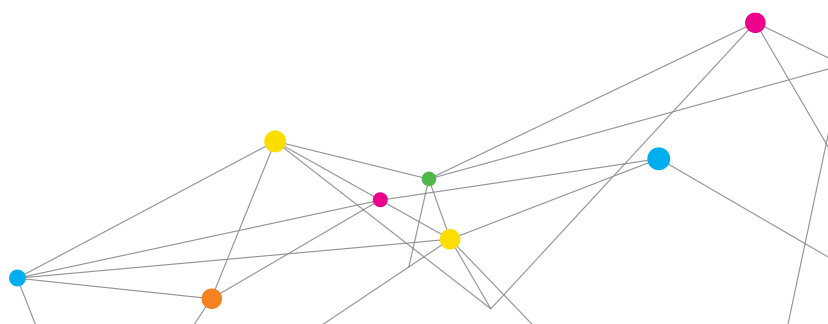
- + Best signal to noise characteristics of any laboratory Raman instrument
- + Accurate, fast, repeatable Raman measurements
- + High sensitivity Raman system for laboratory & chemical process monitoring
- + HRP-8 high throughput laboratory probe (O.D. > 8)
- + Best performance, cost ratio of any Raman instrument
- + Compact, reliable and easy to use

Applications

- + Pharmaceutical
- + Chemicals, polymers
- + Biology
- + Geology, mineralogy, gemology
- + Carbon nanotubes, graphene
- + Solar cells
- + Paper & pulp



ChemLogix™



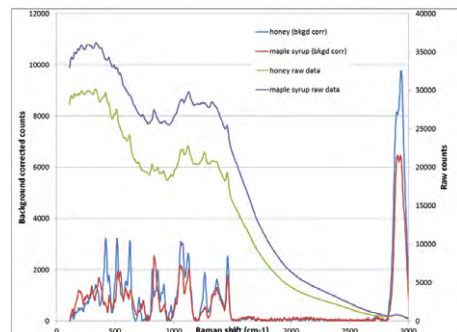
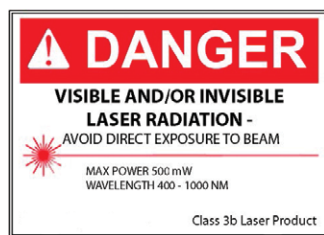
SPECIFICATIONS

PRORAMAN-L HIGH PERFORMANCE RAMAN ANALYZER

Performance and Physical Characteristics			
Laser wavelength	532	785	Dual 532/785
Laser max power	50 mW	400 mW	50/400 mW
Spectrograph ranges	100-3100 cm^{-1}	100-2200 cm^{-1}	532nm: 250-3200 cm^{-1} or 100-3100 cm^{-1}
	100-4000 cm^{-1}	250-2350 cm^{-1}	785nm: 100-2200 cm^{-1} or 100-3300 cm^{-1}
	–	100-3300 cm^{-1}	–
Nominal resolution	6-8 cm^{-1}	8-10 cm^{-1}	6-10 cm^{-1}
Operating CCD temperature	-60° C	-60° C	-60° C
Spectrometer f/#	4.0	4.0	4.0
Power	110/220 V DC power supply	110/220 V DC power supply	110/220 V DC power supply
Physical dimensions	9.5" x 7.3" x 5.3" (L x W x H), 15 lbs	9.5" x 7.3" x 5.3" (L x W x H), 15 lbs	19" x 14.5" x 5.3" (L x W x H), 30 lbs
<p>All TSI ChemLogix Raman instruments are delivered with high sensitivity, cooled CCD detectors with 16 bit digitization and HRP-8 fiber optically coupled sample interface probes. The probes have $\text{OD} > 8$ Rayleigh rejection at the laser wavelength and a range of working distances (7 mm is standard, 3 mm and 10 mm are also available). All bench top and portable units also provide a laptop computer that is preloaded with RamanReader software that governs data acquisitions and spectra management. Data files can be exported as .TXT, .SPC, .DAT or .BMP formats. Depending upon the purpose, output can be directly ported to GRAMS or Symbion for post-analysis or process control. In addition, Raman-Reader has a variety of viewing options including stacked, overlaid and single spectrum display modes. It also has a Time Trend that plots spectra as a function of time, both as individual spectra and by peak ratios.</p> <p>Options available in this line include: Sample holder for liquid samples in vials or cuvette (SH), Probe Holder-XYZ Precision Stage for fine adjustment of sample measurements (XYZ), Pre-aligned lens tube for measurement on contact for solid samples (CLT), high NA lens tube with working distance from ~3mm [NA= 0.55] (HNA), lens tube with working distance 10mm [NA=0.25] (WD10); μV-785 μVViewer Converter (MVW), safety goggles (SG), spectral ID for spectral search and database building Raman library (SPID).</p> <p>One year warranty for parts and labor.</p>			

Specifications are subject to change without notice.

Appropriate safety guidelines should be followed when operating this instrument.
Complies with 21 CFR 1040.10 and 1040.11



Raw and processed Raman spectra of honey and maple syrup. These spectra were acquired with 250 mW of 785 nm laser excitation. Acquisition period was 3 s, and 20x averaging was performed.



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