"THE BETTER RAMAN SOLUTION "

Enwave Optronics, Inc.

EZRAMAN-M *FIELD PORTABLE RAMAN ANALYZER*

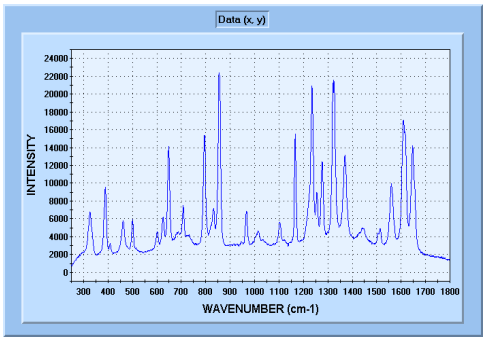
The new **EZRaman-M field portable Raman Analyzer** enables greater simplicity for solid and liquid material identification and testing.

EZRaman-M system features a frequency-stabilized diode laser, a high Rayleigh rejection fiber optics probe, and a miniature high resolution spectrometer achieving 4.5-6.5cm^{-1} average optical resolution. The user-friendly RamanReader spectra management software simplifies spectra identification and chemical reaction monitoring. The EZRaman-M is a powerful, compact, robust, and affordable field portable Raman analyzer. It is an ideal choice for any academic, research, industrial, and all other applications requiring a high performance, low-cost, field portable Raman System.

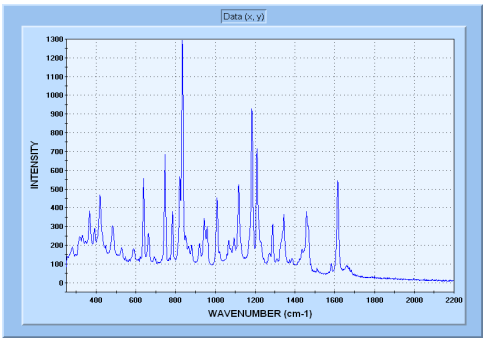
Sample Spectra

OPTION A

TYLENOL

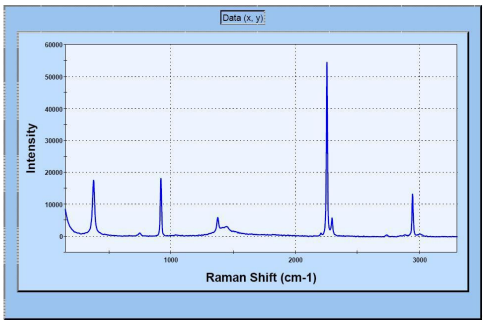


IBUPROFEN

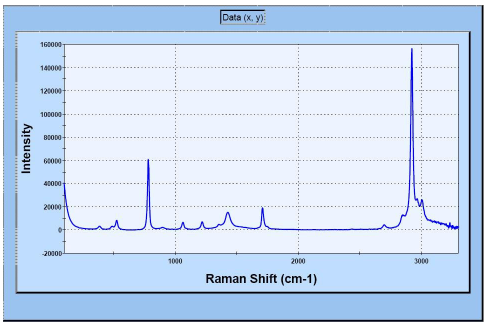


OPTION B

ACETONITRILE



ACETONE



Enwave Optronics, Inc. - 18200 McDurmott Street, Suite B - Irvine CA. 92614 - Tel: 949-955-0258 - Fax: 949-955-0259

www.enwaveopt.com

FIELD PORTABLE RAMAN ANALYZER *EZRaman-M*

SPECIFICATIONS

EXCITATION SOURCE	785 nm Frequency Stabilized, Narrow Linewidth Diode Laser Laser Power: ~300-400mW Optical Power adjustable from 0 to full power Laser shutter control
FIBER-OPTIC PROBE	HRP-8 High throughout fiber optics probe Rayleigh Rejection: O.D. > 8 at Laser Wavelength Working Distance: ~7.5 mm (Standard), 3mm or 10 mm (Optional) Crushproof Stainless Steel Jacket
SPECTROGRAPH	*Option A:* Average Optical Resolution: ~4.5 cm^{-1} Spectral Coverage: 250 cm^{-1} to 2,350 cm^{-1} OR ~100 cm^{-1} to 2,200 cm^{-1} Nominal Resolution: 1 cm^{-1}/pixel *Option B:* Optical Resolution: ~6.5 cm^{-1} Spectral Coverage: 250 cm^{-1} to 3,300 cm^{-1} OR ~100 cm^{-1} to 3,300 cm^{-1} Nominal Resolution: 1.5-1.6 cm^{-1}/pixel TEC regulated Linear CCD Array Measurement Time up to 120 seconds
SYSTEM SOFTWARE	Data Acquisition and Spectra Management Software Data Files Can Be saved as .TXT, .SPC, .DAT, or .BMP Formats Direct Export/Link to GRAMS or Excel for Post Processing and Modeling Time Chart with Stacked, Overlaid, and Single Spectrum Display Modes Time Trend and Ratio Calculate in Time Chart Mode Auto Base Line, Manual Base Line
SYSTEM OPERATING TEMPERATURE/PROTECTION	Operation temperature 10ºC - 40ºC, With Thermal Shutdown Protection
POWER REQUIREMENTS	90 VAC to 264 VAC Auto-Switched, 47Hz to 67Hz or, (Optional) Battery Powered (~5 hours) for field portability
PACKAGING DIMESIONS (L x W x H)"	4" x 6.25" x 8.25"
SYSTEM WEIGHT	~6 Lbs.
ACCESSORIES (Optional)	Pre-aligned Lens Tube Sample Holder Integrated UMPC
SYSTEM WARRANTY	One Year for Labor and parts

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