Real-Time Analyzers' ***RamanID*** identifies any unknown liquid or solid in just seconds. It has been designed specifically for operation in the field to support Homeland Security, Forensic & Crime Labs, and Hazardous Materials Response Teams. It is also well suited to verifying raw materials used in chemical, petrochemical, and pharmaceutical manufacturing.

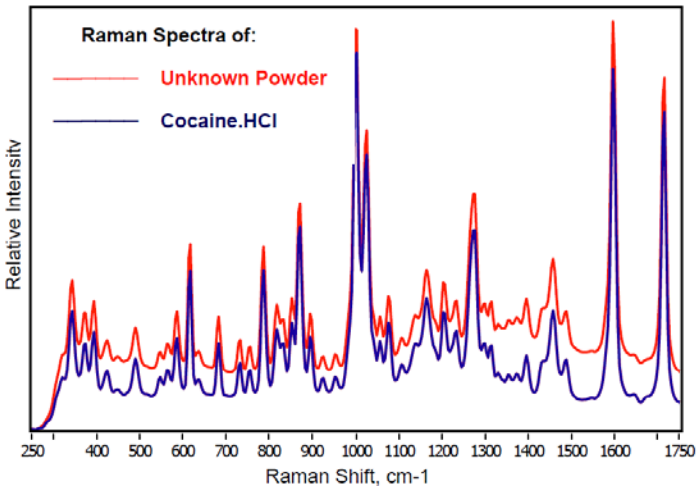
Unknown Identification

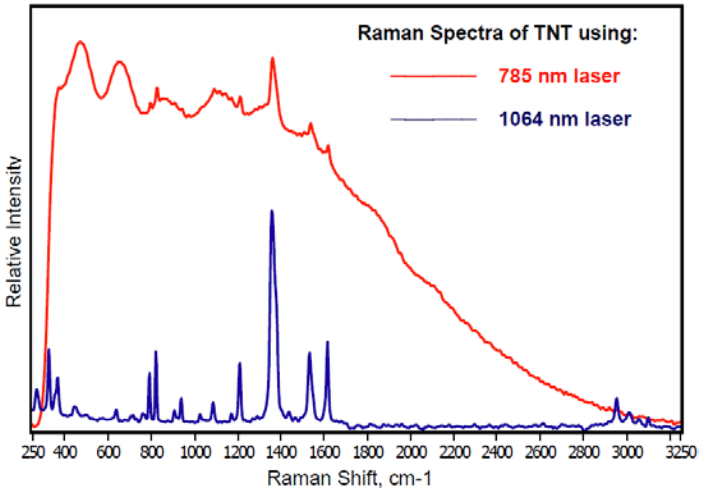
Rapid, positive identification of unknown solid or liquid materials "in-the-field" can be critical, even a matter of life or death. Hoax powders, thought to be anthrax, continue to appear on mail sorting equipment world-wide. Is it anthrax or powdered sugar? Suspicious containers of liquids and gels are constantly being discarded at airport security. Are these liquids a soft drink, water or poisonous chemicals? More and more natural remedies are sold over the internet. Are they authentic or frauds containing actual drugs. Trucking and rail accidents, although infrequent, can result in spills of unknown liquids. Is the liquid a petroleum product or a toxic industrial chemical? State police constantly find unlabelled plastic bags of pills and powders. Are these prescription medicine, illicit drugs, or explosives? Agricultural, biochemical, chemical, petrochemical, and pharmaceutical manufacturers receive raw materials to make their products every day. The quality and safety of these products depend on the use of the proper raw materials. Is the 55 gallon drum the correct solvent, and is it pure?

Real-Time Analyzer's *RamanID* is designed to answer these critical questions. The user simply points the probe at a sample, clicks **Measure Sample** on the computer, and within 10 seconds, the unknown material is identified.

The ***RamanID*** measures the Raman spectral signature of an unknown sample, matches it to one of thousands of Raman signatures stored in memory (spectral library), and displays the unknown identity (as shown for cocaine below). Every solid and liquid, including biological spores, chemicals, drugs, and explosives, has a unique Raman signature that allows a positive match, and therefore a positive identification.

The ***RamanID*** is also the only portable Raman analyzer that employs 1064 nm laser excitation to avoid fluorescence interference. All other portable Raman analyzers use shorter wavelength lasers to generate Raman spectra (e.g. 785 nm), which very often generate fluorescence in the sample (as shown for TNT below). This is especially true for natural substances (biological materials, petroleum products, etc.), as well as most home-made explosives, common street drugs, and food products that are sometimes used as anthrax hoax powders. When a competitor's product generates fluorescence in a sample, the Raman spectrum is completely lost, which makes identification impossible.



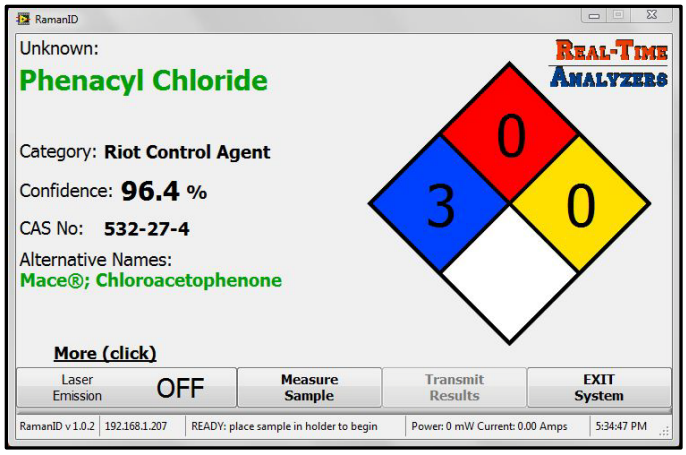


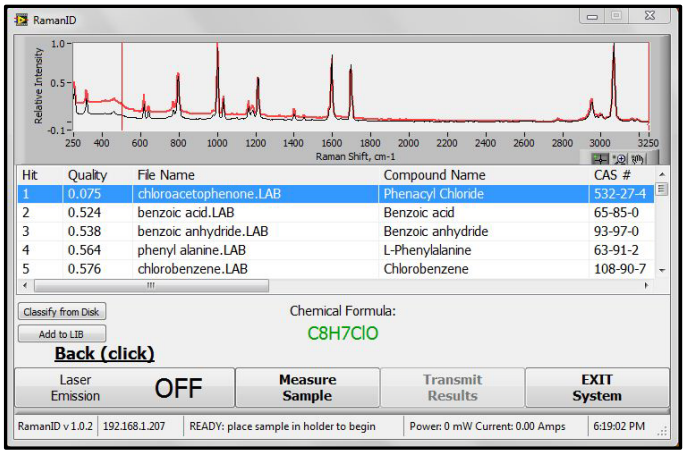
RTA is located at 362 Industrial Park Rd (#8) / Middletown, CT 06457
www.rta.biz, Phone: 860-635-9800, Facsimile: 860-635-9804

REAL-TIME ANALYZERS
Providing Chemical Information When & Where You Need It

Specification	RamanID
Operation	
Warm-up Time	60 seconds
Measurement Time	10 - 60 seconds
Sampling	Light-tight compartment for 2 or 20 mL glass vials, or 5 m FO probe
Calibration	Factory set using NIST standard
Analyzer	
Measurement Principle	FT-Raman Spectroscopy
Light Source	1064 nm, 500 mW, 0.1 nm line width (Class 1 Laser Product)
Detector	InGaAs (thermo-electrically cooled)
Spectral Resolution	User selectable at 8, 16, or 32 cm^{-1}
Spectral Range	150 - 3350 cm^{-1}
Data System	
Laptop or embedded computer	Pentium or better >1 GHz, 128MB RAM
Operation System	Windows 2000/XP/Vista/Windows 7
Software	RamanID/ChemID (with 500 spectra in initial library)
Data Export	Ethernet/USB
Environment	
Dimensions	19.78 x 15.77 x 7.41” (502 x 400 x 188 mm)
Weight	30 lbs (13.6kg)
Power	Battery (5 hours- rechargeable) / Electric (120/240 VAC 50/60Hz)
Operating Temperature Range	32 - 110 ^{o}F (0 - 45 ^{o}C)
Dust and Spill Proof	Surface is sealed, CBN decontamination when closed

Customized User Interfaces are also available:





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