

RAMAN INSTRUMENTS FOR THE LAB AND FIELD

FROM TSI INCORPORATED



AFFORDABLE, HIGH-PERFORMANCE RAMAN INSTRUMENTS FOR THE LAB AND FIELD

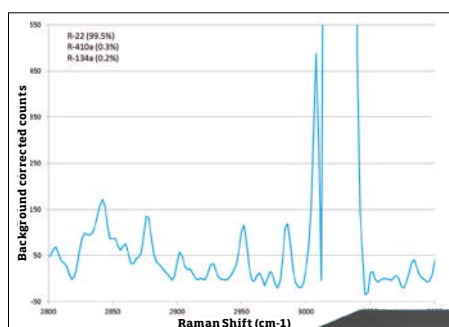
Our Raman Instruments boast the following features, providing customers with the best measurements for their money, including:



HIGHLY SENSITIVE

TSI's line of Raman spectrometers are based on an efficient optical design, powerful excitation laser, CCD spectrographs cooled thermo-electrically as low as -60 C to deliver fast and sensitive measurements.

Our Raman spectrometers, including both desktop and portable configurations, can be as sensitive as high-end, confocal Raman instruments but with a much lower price point and greater ease of use, making them the ideal choice for a broad range of applications in the lab and field.



Raman analysis a gaseous mix of freons shown above demonstrates sensitivity of our Raman suite. Data was gathered using the Gas Raman NOCH-1 Analyzer.



SOPHISTICATED FUNCTIONS BUT EASY-TO-USE

Raman analysis made easy: Count on faster and more accurate measurements with little to no sample preparation and help from our easy-to-use and intuitive operating system which enables operation by both technical and non-technical people. Anyone can obtain the right material identification the first time, in turn resulting in more efficient analysis and lower cost operation.

Sophisticated functionality: Time chart/TimeTrend plots spectra as a function of time, both as individual spectra and by peak ratios, allowing for real-time reaction monitoring. Direct export/ link to GRAMS enables more advanced post processing and modeling.



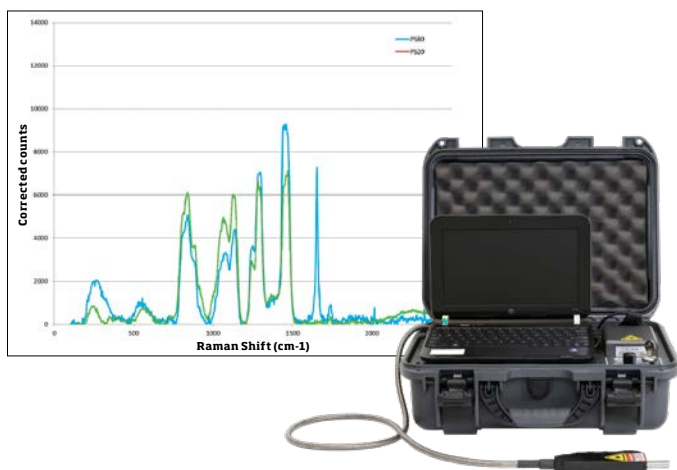
A screenshot of the included software program in use. In this particular example, aspirin was added to the user library and then a pill from a first aid kit was analyzed.





EXCEPTIONAL MEASUREMENTS

TSI's full line of high-performance, easy-to-use Raman spectrometers produce incredible, reliable results- the first time- with lower limits of detection than competing instruments. Our Raman spectrometers can even deliver in corrosive, high-pressure and high-temperature environments thanks to rugged immersion probes, flow-through cells and optical ports.

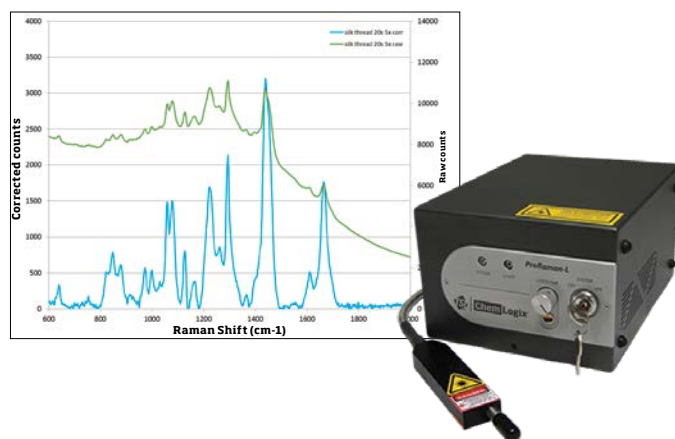


The EZ Raman NP can easily separate two types of polysorbate materials through a brown glass wall using a long-working distance lens.



DOES YOUR SAMPLE GLOW?

Effective and impressive fluorescence removal thanks to our proprietary background removal algorithm and cooling temperatures of our CCD detectors. So if your sample glows, bring it on!



Spectra from silk fibers is shown above, showing spectra before and after background correction fluorescence mitigation. Completed using the ProRaman-L High-Performance Raman Analyzer.



SO MANY INSTRUMENTS, SO MANY APPLICATIONS, SO LITTLE TIME

TSI's Raman Spectrometers deliver laboratory-grade measurements to its complete product line including "good", "better", "best" solutions in handheld, portable, bench top, and process control instruments for a broad range of Raman measurements, including gas analysis, in the lab and field. Enhanced spectral resolution, faster analysis time, and consistent instrument performance offer better solutions for rapid material identification applications including: incoming raw material identification, counterfeit identification, polymer & plastics, gemology, mineralogy, food safety, and chemical research.

The MicroViewer Raman Microscope is an easy, cost-effective add-on that is compatible with our entire suite of desk-top Raman instrument, making for a more complete system for microscopic analysis down to laser spot size of 10 microns.

TSI | ChemLogix Raman Spectrometer Selection Guide

	Good	Better	Best
Benchtop	EZRaman-N	Pro Raman-L	Gas NOCH-1, Gas NOCH-HP and ProRaman-W
Portable	EZRaman-NP	EZRaman-I	Gas NOCH-2
Handheld	EZRaman-H		



FOR AN ON-SITE DEMONSTRATION, CONTACT A TSI® | CHEMLOGIX™ REPRESENTATIVE BY VISITING [TSI.COM/ASSURX](https://www.tsi.com/assurx) OR CALL **800-874-2811**.

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