Navigator

UV VIS NIR
350nm - 2500nm

SciAps

Instant Analysis of Minerals, Food, Pharmaceutical Compounds & other Chemicals

Portable, Broadband Absorption Spectroscopy

Introducing

Navigator

UV VIS NIR
350nm - 2500nm

Portable, Broadband Absorption Spectroscopy Covering 350 nm - 2500 nm Wavelength Range

- **Highly portable UV/Vis/NIR absorption analyzer**
- **Field-ruggedized for virtually any climate or conditions**
- **Extensive, customizable libraries for minerals & compounds**
- **Instant connectivity & data upload from anywhere**
- **Java driven tablet for fast analysis**
- **Integrated, removable tablet for completely autonomous data collection without the need for external laptop or PDA**

The **Pistol-Grip Probe** on the Navigator also holds any smartphone for convenient results viewing & start/stop.

Download our free App for any Android based device.

ANDROID

Compound and Mineral Analysis Designed for your World

SciAps introduces a truly portable, field hardened absorption spectrometer. The wide spectral range from 350 nm to 2500 nm captures signature absorption patterns spanning the ultraviolet (UV) through the near infra-red (NIR). The spectral range allows for a wider variety of minerals and compounds to be identified, including critical minerals in clay mineralogy, sulfates, carbonates, rare earth minerals/elements and many more.

A Robust Spectrometer

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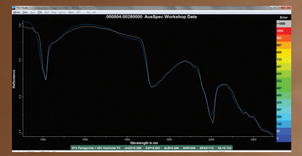
The Navigator is robustly designed for water, dust and shock resistance, meeting IP 54 standards. Internal temperature stabilization and automated drift correction deliver reliable performance in excessively hot or cold climates. And there's no moving spectrometer components. It's built for the daily wear and tear required of field-based analytical instruments. It can be used in virtually any climate and operating condition.

Analytically Speaking

For mineral analysis, Navigator exports directly to TSG or SpecMIN. Data is seamlessly dropped into TSG for mineral ID, mapping and data logging. Navigator software is equipped with standard libraries of minerals or compounds. Operators may easily build and customize their own libraries allowing you to build your own. Customized method generation for results analysis is available via on-board standard approaches including Principal Components Analysis and Partial Least Squares (PCA/PLS) methods. The Navigator is also compatible with common off-the-shelf chemometrics programs like Camo Unscrambler.



Field Geologists
Compatible with TSG and SpecMIN

CAMO

Instant Analysis of Minerals, Food, Pharmaceutical Compounds & other Chemicals

250+ MINERAL LIBRARY
CUSTOMIZABLE

Tablet Driven for Global Connectivity

Navigator is both highly mobile and globally connected. Its engine is a **Mil-spec 810g** rated Tablet useable in virtually any environment. The Tablet easily disconnects from the analyzer, offering easy results viewing and off-line analysis while travelling with the instrument in storage. The Navigator's software engine is Java-based, yielding exceptional compatibility for exporting data. It features instant connectivity to the cloud via wireless and broadband. Data collected in the field can be instantly uploaded to off-site analysis stations. Data from multiple instruments are easily uploaded for comparison and logging, for analyzers used at multiple geographic locations.

JAVA ANDROID Wi Fi Bluetooth

Mineral Exploration

Get out of the core shed!

Newer, faster drilling technologies can now derive real benefits from instant mineral analysis. The Navigator was designed to provide immediate, on-site results of cores or other samples. NIR absorption is a powerful technique especially for clay minerology, including Kaolinite, Dickite, Smectite and Montmorillonites. Also analyzed are minerals in fresher or partially weathered rock associated with alteration that is indicative of mineralizing events e.g. sulfates Alunite, gypsum and anhydrite, barite, anglesite, and Jarosite. Micas are very important also e.g. Sericite, Muscovote, Phlogopite, lepidolite plus many more.

Imports easily into TSG for immediate mineral identification

Navigator data imports easily into TSG for immediate mineral identification.

Pharmaceutical

Verification of active ingredients and excipients

Navigator offers incredibly fast verification of most pharmaceutical compounds. It performs especially well for fats, and compounds that are difficult for Raman analyzers - the high fluorescing cellulose-based compounds like MCCs, folic acid and many others. Results are available within 1-2 seconds, allowing for large amounts of raw materials to be screened very quickly. The larger beam area (approximately 1.5 cm diameter) provides averaging over a larger sample area, effectively eliminating sample inhomogeneity effects.

Food Safety, EMA

Economically motivated adulteration (EMA)

Known as food fraud, EMA is the intentional modification of food for financial advantage, a common form being undeclared substitution with alternative ingredients. The most widely targeted foods are olive oil, milk, honey, saffron, orange juice, coffee, and apple juice. Navigator offers a different strategy to combat food fraud. Take the analyzer to the source of the raw materials. Verify them at the point of use, before the intermediate or final product is manufactured. Testing early in the chain also means substituted ingredients are at higher concentration levels - and thus avoiding the need of high powered, stationary NIR systems.

Universities

Field Geology and Chemistry Programs

Navigator makes a great field and lab teaching tool. It can be taken anywhere, and the Tablet-based platform offers great compatibility with other devices. Quickly demonstrate the value of absorption spectrometry for both field and laboratory mineral and compound identification.

Plastics
Recycling and Quality

PE, PP or ABS? Or specialized surgical plastics like PPSU or PSO? The Navigator's speed and ease of use make it a great tool for sorting plastics by type as part of a recycling operation, or verifying the correct type of plastic at incoming or outgoing inspection. NIR as a technique is very fast, identifying most plastics in about 1 second. The large area light source lends itself to quick field operation by non-technical operators. It's the true point and shoot tool for polymer identification.

General Applications
for Product Quality

Navigator's portability, spectral range, processing power and Tablet engine make it a powerful tool for a wide array of molecular analysis applications. As supply chains go global, monitoring raw material quality becomes a field job, often requiring on-site inspections. The Navigator puts a powerful analytical tool into the hands of quality managers, allowing immediate, on-site material verification. And, with the connectivity of the Tablet, data is easily streamed to a central warehouse. On-site analysis, immediate answers, totally connected data globally.

Other SciAps Products

SciAps also manufactures a leading line of handheld and benchtop Raman analyzers. Raman offers several complementary features to portable NIR, including better selectivity for some organic compounds, and insensitivity to water. Thus it's often a better technique for moist samples or aqueous-based solutions. In addition, certain minerals and gems (e.g. quartz) are easily identified via Raman, whereas NIR absorption is insensitive. Raman also interrogates a very small region - about 25 um - compared to NIR, making it a better technique for looking at very small samples, mineral veins, or particulate contaminants in materials.

SciAps is pleased to offer a Raman unit for every price/performance requirement. The least expensive analyzers on the market --The ReporteR and 21 CFR Part 11 compliant Pharma ID -- are rugged (IP67 compliant), compact, and ideal for many standard applications. The Inspector 300 is a more powerful system, featuring a 300 mW, 785 nm laser, color touchscreen, and advanced processor for higher performance. The Inspector 500 features a specialized 1030 nm laser designed to handle the toughest fluorescing materials that 785 nm lasers simply cannot analyze. Finally, the Scope combines the Inspector with a microscope, digital camera and XYZ stage. It's the only Raman analyzer that offers benchtop analysis, and undocks to become a high performing handheld Raman. Whatever your requirements - NIR absorption or Raman - SciAps offers the right analyzer package and outstanding customer support and service.

Inspector 300

Inspector 500

SPECIFICATIONS

	Inspector 300	Inspector 500
Laser	300 mW 785 nm Class III B	300 mW 1030 nm Class III B
Detector	Cooled CCD array	Cooled Type III-IV semiconductor array
Spectral Range cm^{-1}	175-2875	100-2500
Resolution across range cm^{-1}	6-8	8-10
Dimensions	7.5" x 6.9" x 1.7"	7.5" x 6.9" x 1.7"
Weight	3.75 lbs (1.7 kg)	3.75 lbs (1.7 kg)
Battery lifetime	4 hours and removable	4 hours and removable
Operating Temperature	-20° to +40°	-20° to +40°
PC Software	DATA & DATA Advanced	DATA & DATA Advanced
Spectral Library Options	CWC (Chemical Warfar Agents, TICS, TIMS), Law Enforcement (Narcotics, Explosives), Chemical Library, Pharmaceutical, Plastics	CWC (Chemical Warfare Agents,TICS, TIMS), Law Enforcement (Narcotics, Explosives), Chemical Library, Pharmaceutical, Plastics

ReporteR

The smallest, toughest Raman analyzer on the planet: The ReporteR weighs less than 1lb, and meets demanding Mil Spec 510G for waterproof, dustproof, shockproof ratings. On-board spectral libraries are configured to quickly identify many unknown compounds. A perfect combination of ruggedness and performance for many in-field applications.

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SPECIFICATIONS

Feature	Specification
Spectral Range (nm)	350 - 2500
Resolution (nm)	4 nm @ 435 nm 5 nm @ 1530 nm 10 nm @ 2100 nm
Weight (incl Tablet, excl batteries, probe)	17.95 lbs
Battery weight	1.9 lbs
Battery life	6.5 hrs
AC Power	100 - 240 VAC 50/60Hz
Dimensions	14.5" X 13.5" X 7.5"
Tablet OS	Windows 8
Connectivity	WiFi, 4G LTE, Bluetooth, USB

JAVA ANDROID Wi Fi Bluetooth

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ISO 9001 CERTIFIED QUALITY ASSURANCE

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