SPECTRAL EVOLUTION

FIELD PORTABLE SPECTROMETERS

FOR REAL-TIME MINERAL ANALYSIS

Gold, Copper, Lithium, Nickel,...

We help you find all these and more!

INNOV-X AFRICA

	oreXpress	oreXplorer	oreXpert
Spectral Range	350–2500nm	350–2500nm	350–2500nm
Spectral Resolution	2.8nm (350-1000nm) 8nm@1500nm 6nm@2100nm	2.7nm (350-1000nm) 5.5nm@1500nm 5.8nm@2100nm	1.5nm (350-1000nm) 3nm@1500nm 3.8nm@2100nm
Spectral Sampling Bandwidth	Data output reported in 1nm increments 2151 channels reported	Data output reported in 1nm increments 2151 channels reported	Data output reported in 1nm increments 2151 channels reported
Si Detectors	512 element Si array (350–1000nm)	1024 element Si array (350–1000nm)	1024 element Si array (350–1000nm)
InGaAs Detectors (TE-cooled)	256 element extended wavelength array (1000–1900nm) 256 element extended wavelength array (1900-2500nm)	512 element wavelength array (1000–1630nm) 512 element extended wavelength array (1630-2500nm)	512 element wavelength array (1000–1630nm) 512 element extended wavelength array (1630-2500nm)
Minimum Scan Speed	100 milliseconds	100 milliseconds	100 milliseconds
Wavelength Reproducibility	0.1nm	0.1nm	0.1nm
Wavelength Accuracy	±0.5 bandwidth	±0.5 bandwidth	±0.5 bandwidth
Communications Interface	USB, Wireless Connection	USB, Wireless Connection	USB, Wireless Connection
Size	8.5x12x3.5 in (215x305x89 mm)	12.4 x 8.7 x 4.4 in (315 x 221 x 112 mm)	12.4 x 8.7 x 4.4 in (315 x 221 x 112 mm)
Weight	7.3 lbs (3.3 kg)	13.5 lbs (6.1 kg)	13.5 lbs (6.1 kg)
Battery	External Lithium ion; 7.4V	External Lithium ion; 7.4V	External Lithium ion; 7.4V
Battery Operation	Minimum 5 hour operation	Minimum 3 hour operation	Minimum 3 hour operation

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Identify minerals in the field in real time

With Spectral Evolution portable spectrometers and EZ-ID™ software, geologists can measure and identify samples in seconds, and cover more ground in less time than by using traditional field methods or lab analysis. They can identify different mineral phases, work up mineral alteration maps, and more accurately identify mineral pathfinders for vectoring to ore deposits.

Our selection of probes and light sources enables you to analyze minerals in a variety of shapes and sizes such as core samples, chips, and powders. You can even identify small veins with our 3mm spot-size miniprobe.

With the EZ-ID™ mineral identification software you can:

- Instantly match a target scan against libraires of more than 1,100 know minerals
- Select match regions to focus on particular spectral features and mineral unmixing
- Use scalars to better understand crystallinity changes, alteration patterns, and geochemical conditions
- Interface with prediction engines for quantitative chemometrics analysis

Maximize efficiency and throughput

With real-time mineral identification in the field, you can explore more territory and make more informed decisions on where to drill and maximize exploration outcomes.

In the core shack you can map alteration and eliminate unnecessary assays on cores that show no potential, reduce the time logging takes, and build a digital archive of your results.

The spectral resolution and sensitivity of our spectrometers is unsurpassed and provides the user with the most accurate spectral data.

Essential accessories for your spectrometer

For instant mineral identification and visualization of the spectral data, a rugged field controller is available to connect to the spectrometer via a wireless connection.

Our rugged 10mm and 3mm spot-size contact probes have a built-in high-intensity light source to ensure the best data quality under any environmental conditions.

Rugged & Portable Spectrometers for Field Use

The oreXpress, oreXplorer, and oreXpert spectrometers are specifically designed for the harsh requirements of field use. A rugged design with no moving optical components means reliability for field operation. All spectrometers are portable and are provided with a custom backpack. A wireless connection allows the interface with a tablet or laptop, for real-time analysis in the field. A lithium-ion battery provides hours of data collection in the field. Our fiber optic cables have a stainless-steel sheath and can easily be replaced in the field to prevent any down-time.

The oreXpress provides quick reliable mineral identification and analysis with industry-standard resolution. The workhorse of spectrometers, used by hundreds of geologists worldwide.

The oreXplorer delivers higher resolution and sensitivity to identify hard-to-unmix minerals. An essential tool for vectoring purposes. The new industry standard for mineral analysis.

oreXpert is the highest-resolution field spectrometer on the planet! It provides a new level of detection of minerals in mixed samples, giving geologists the possibility to unmix spectral features and identify important vectoring minerals.

The benchtop reflectance probe is the ideal accessory for repeatable measurements of chips, powders, and loose samples.

High-capacity Li-Ion batteries provide hours of autonomy for data collection in the field.