

The SR-6500 with three thermoelectrically cooled photodiode arrays delivers the ultimate in high resolution and stable performance

SR-6500 Technical Specifications

Spectral range 350-2500nm

Photodiode Arrays:

1024 element TE-cooled silicon detector (350-1000nm)

512 element TE-cooled InGaAs detector (1000-1630nm)

512 element TE-cooled extended InGaAs detector (1630-2500nm)

All dispersive optics fixed in place— no moving parts

Auto dark current shutter & auto-exposure control

Fixed metal clad fiber optic cable with SMA-905 input

(User removable fiber/4 bolts for easy field replacement)

Wireless Bluetooth and USB interfaces

Comes complete with DARWin SP Data Acquisition Software

(Windows XP/Vista/System 7/8/10 compatible)

Minimum scan speed: 100milliseconds

Spectral resolution

1.5nm @ 700nm

3.0nm @ 1500nm

3.8nm @ 2100nm

Noise Equivalence Radiance (with 1.5 meter fiber optic)

1.0×10^{-9} W/cm²/nm/sr @ 400nm

2.8×10^{-9} W/cm²/nm/sr @ 1500nm

6.8×10^{-9} W/cm²/nm/sr @ 2100nm

Auto-dark current measurement

Auto-optimization

Dimensions

12.4 x 8.7 x 4.4 inches (31.5 x 22.9 x 38.7 cm)

Weight:

11 lbs. (4.99 kg)

Operating range : 0-40°C

Communications: Wireless Bluetooth and USB

Instrument Power (Max): 33W



SR-6500 Spectroradiometer Ultra High Resolution



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Ultra High Resolution for Demanding NIR Spectroscopy Applications

The SR-6500 portable spectroradiometer provides the ultimate in high resolution scanning for applications where the ability to see and save additional information about absorbance and reflectance features is critical. The SR-6500 is a full range UV/VIS/NIR spectroradiometer covering the 350-2500nm spectral range. It is designed with three thermoelectrically cooled photodiode arrays for the ultimate in stable performance. The photodiode arrays are:

- ◆ 1024 element TE-cooled silicon detector array covering wavelengths from 350 to 1000nm
- ◆ 512 element TE-cooled InGaAs detector array covering wavelengths from 1000 to 1630nm
- ◆ 512 element TE-cooled extended InGaAs detector array covering wavelengths from 1630 to 2500nm

Based on this stable performance, the SR-6500 delivers very high resolution for accurate and precise spectra. Resolution is:

- ◆ 1.5nm @ 700nm
- ◆ 3.0nm @ 1500nm
- ◆ 3.8nm @ 2100nm

The spectroradiometer can be used with bare fiber or FOV(field-of-view) fiber-attached lenses and a high-power light source, or with our convenient handheld Miniprobe, a sample contact probe with a built-in light source and 3mm spot size.

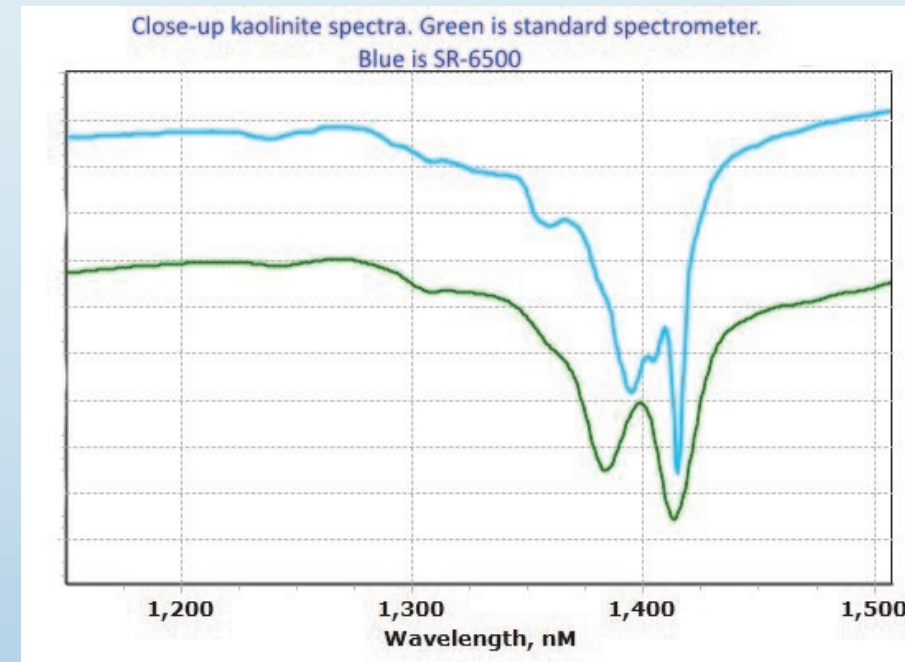
With the Miniprobe, the SR-6500 is well-suited for capturing high resolution scans of minerals in samples from mining exploration. These scans will show additional features not seen with standard field spectrometers or spectroradiometers allowing for better identifications and analysis of the minerals in the sample and affording a geologist an impressive tool for unmixing minerals in samples.

The SR-6500 includes our DARWin SP data Acquisition software for instrument control and data acquisition and saves all files as ASCII for easy use with other analysis software. In addition, option EZ-ID provides mineral identification software with matching to two libraries of more than 500 minerals and

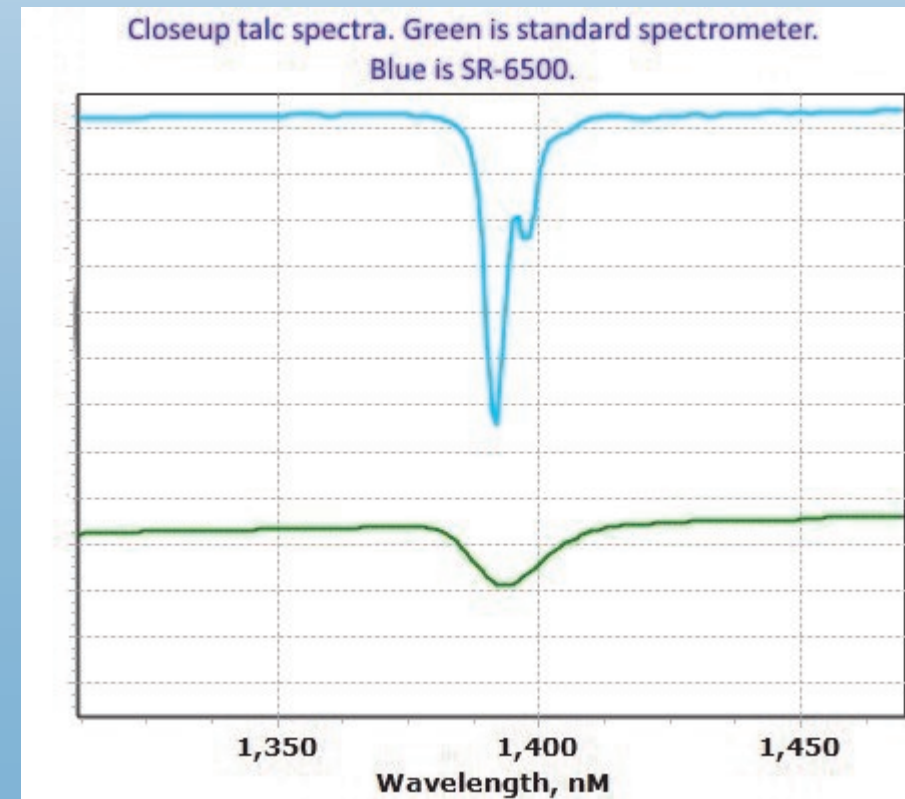
1500 spectra. For those who want to build their own library, there is a Custom Library Builder Software module. Libraries of known samples can be quickly built during or after scanning and metadata created with the spectra, including eight user-defined fields.



The SR-6500 and Miniprobe can focus mineral identification on smaller parts of sample (3mm spot) and deliver greater detail for mor accurate mineral identification, unmixing, and analysis.



A close-up of scans taken with the SR-6500 and a standard resolution field spectrometer of a clay sample primarily composed of Kaolinitie. The spectra from the SR-6500 not only shows the major absorption features at a higher resolution, it also uncovers additional spectral features not seen in the standard scan. Reflectance values have bee removed to offset the scans.



A close-up of scans taken with the SR-6500 and a standard resolution field spectrometer of a talc sample. Here you can see the dramatic difference the higher resolution capabilities of the SR-6500 bring to the spectra. The spectra shows a distinct doublet where the standard spectrometer shows a single shallow absorption feature.