

SPECTRAL EVOLUTION

Typical Soil Applications:

- ◆ Topsoil fertility
- ◆ Erosion risk
- ◆ Hydraulic properties
- ◆ Soil degradation
- ◆ Soil mapping and monitoring
- ◆ Crop monitoring during growth cycle
- ◆ Total carbon and inorganic carbon
- ◆ Organic matter in soil
- ◆ Total nitrogen and mineralized nitrogen
- ◆ Clay, silt, and sand
- ◆ Cation exchange capacity (CEC) measurement as an indication of soil fertility and nutrient retention capacity
- ◆ Moisture content
- ◆ Soil pH

A field spectroradiometer, such as the SPECTRAL EVOLUTION PSR+, allows a researcher to apply hyperspectral and multi-spectral data from satellite and airborne flyovers with field measurements. The PSR+ is ideal for soil analysis and mapping applications because it delivers:

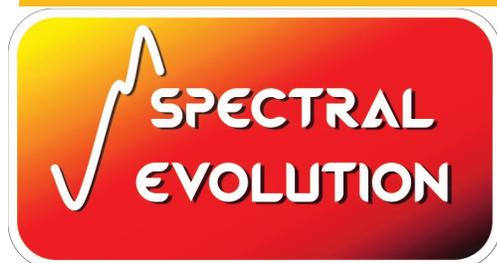
- ◆ Fast, full spectrum UV/VIS/NIR measurements with a spectral range from 350-2500nm with just one scan
- ◆ Ultra-fast operation with autoshutter, autoexposure and auto-dark correction before each new scan – no optimization step
- ◆ Small and lightweight with rechargeable Li-ion batteries for field operation—half the weight of competitive instruments
- ◆ Superior signal to noise ratio with faster scan times and better reflectance measurement
- ◆ Reliable field performance with an all photodiode array platform and no moving gratings
- ◆ Detachable, field replaceable fiber optic and field swappable optics for varying target sizes and different measurement modes
- ◆ Single user operation with optional rugged PDA that provides a sunlight readable screen plus the ability to tag spectra with GPS, digital camera images, and audio notes
- ◆ Standalone operation with 1,000 scan storage

The PSR+ comes equipped with DARWin Data Acquisition software that collects data and saves it to a compatible ASCII format for use with 3rd party chemometric analysis software without requiring post-collection processing.

In addition to the PSR+ and other portable spectroradiometers, SPECTRAL EVOLUTION also offers a full range of portable spectroradiometers and lab spectrometers. For more information, visit: www.spectralevolution.com.



The PSR-3500 spectroradiometer is ideal for soil analysis in the field or in the lab.



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