

SPECTRAL EVOLUTION

Reflectance and Transmittance Sphere

Spectral Evolution portable reflectance/transmittance sphere is ideal for measuring vegetation physiological states



SPECTRAL EVOLUTION now offers a portable, compact four inch reflectance/transmittance (RT) integrating sphere for measuring the reflectance and transmittance of a wide variety of material types. The 4 inch RT sphere is lightweight and portable so you can take it into the field for *in situ* measurements, delivered with a stand as well as a 1/4-20 mount for use with tripods. When used with a SPECTRAL EVOLUTION spectrometer or spectroradiometer such as the PSR+, RS-3500, RS-5400, SR-6500 or RS-8800, it delivers detailed information for measurements transmittance and reflectance modes at two varying light intensity levels.

Light reflected or transmitted from a sample in a sphere is integrated over a full hemisphere, with measurements insensitive to sample anisotropic directional reflectance (transmittance). This provides repeatable measurements of a variety of samples. The 4 inch portable RT sphere can be used in vegetation studies such as, deriving absorbance characteristics, and estimating the leaf area index (LAI) from radiation reflected from a canopy surface. The sphere will provide an opportunity for researchers to limit destructive sampling and provide timely data acquisition of key material samples.

The RT sphere allows you to collect all diffuse light reflected from a sample – measuring total hemispherical reflectance. You can measure reflectance and transmittance, and calculate absorption at varying bulb intensity levels. A white reference is provided for both reflectance and transmittance measurements. The RT sphere, similar to other field accessories, is connected to SPECTRAL EVOLUTION spectrometers and spectroradiometers via an industry standard SMA-905 connector. Like many other Spectral Evolution accessories, the RT sphere can be operated via a one click triggering mechanism, allowing for rapid data acquisition. It is powered by the universal accessory power supply cable for seamless integration into existing SPECTRAL EVOLUTION equipment.



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