

DTR6 Integrating Sphere

Diffuse Reflectance and Transmittance



The DTR6 integrating sphere, coupled with a monochromatic source and detection electronics, such as those pertaining to the PVE300 system, permits the determination of the diffuse reflectance and diffuse transmittance of a sample.

From such information, the quantity of light reaching the PV device active region can be determined, thus enabling the determination of IQE.

The optical layout of the Barium Sulphate coated DTR6 is presented below, where the monochromatic probe is imaged onto the plane of the port appropriate to the measured quantity, reflectance or transmittance.

In the case of diffuse transmittance, the sample is placed at the transmittance port, the sphere collects all light transmitted into the hemisphere behind the sample.

In the case of reflectance, the sample is placed at the reflectance port. The specular component may be excluded (SPEX) or included (SPIN) in the measurement, by the use

Core Features

- Determination of sample diffuse reflectance (SPIN/ SPEX)
- Determination of sample transmittance
- Spectral range 300-2500nm

