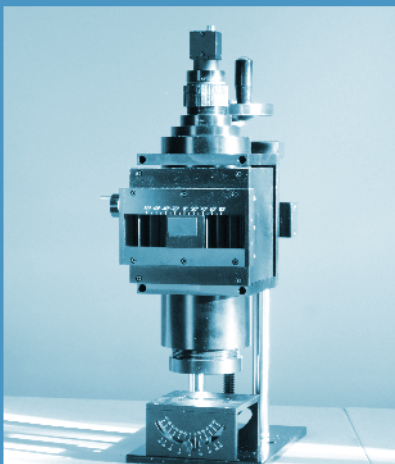


Conoscopic Scatterometer

The Fastest Way to Accurately Measure Optical Scatter

Features

- Real-time measurement of BRDF BTDF, Hemispherical Reflectance or Transmittance, PSD and Angular Resolved Scatter
- Specular measurements with no limitation on the angle between the source and the detector
- Acceptance half-angles from 4° to 80°
- Angular resolution of 0.13° or better
- Manual or software control
- Complete measurements in < 1 second
- Dynamic Range of 8 bits



Measure the scattering from a sample in real-time, at high resolution, and with great ease of use.

Eckhardt Optics designs and manufactures a line of scatterometers based on our conoscopes. To turn a conoscope into a scatterometer, we add light sources for transmissive measurements (BTDF) or reflective measurements (BRDF) and appropriate analysis software. These scatterometers can be customized to match your measurement requirements.

Your Scatterometer will include everything needed to measure BRDF

- A Conoscopic lens
- A 2/3" CMOS camera
- A BRDF light source with adjustable angle of incidence
- A stand with an Acme screw and hand wheel for height adjustment
- Standards for dark field and flat field calibration
- All necessary cables

Specifications

Measurements

BRDF, BTDF, hemispherical transmittance and reflectance, Angular Resolved Scatter

Calculations

TIS, PSD; ABC or ABg coefficients for BSDF

Wavelength

405 to 650 nm or white LED

System Accuracy

Resolution: $<0.13^\circ$

Accuracy: $\pm 5\%$

Linearity: $\pm 2\%$

Repeatability: $\pm 2\%$

Dynamic Range: 8-10 bits

Limiting Angles

Angle of Incidence for BRDF: 5° less than lens

Angle of Incidence for BTDF: -60° to 60°

Sample Characteristics

Sample Clearance: 10cm

Positioning: Manual or Software Controlled
Specular or Diffuse

Computer

Interface: USB 3.0

Software: Microsoft Windows® based

Operating Conditions

Temperature Range 10° to 40° C

Humidity: 0 to 95% RH, non-condensing

Physical Dimensions

Size: 20 x 20 x 45 cm

Weight: 13kg

Customized Scatterometers

You have a project that requires a scatterometer with specifications different from those listed above? We will work with you to create a customized solution. [Contact us](#) if you need a change in the lens coating, wavelength of light source, viewing angle, sample size, or camera.