



- 1 3D reflectance and scattering distribution of a gemstone with facets.
- 2 Measurement system ALBATROSS-TT.
- 3 Examples of angle resolved scattering (ARS) measurements (azimuth angle 0°) in reflection and transmission hemispheres.

ALBATROSS-TT TABLE-TOP SYSTEM FOR LIGHT SCATTER MEASUREMENT

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System description

The new table top system ALBATROSS-TT (3D-Arrangement for Laser Based Transmittance, Reflectance and Optical Scatter measurement – Table Top) enables highly sensitive measurements of angle resolved light scattering, reflectance and transmittance of optical and non-optical surfaces, materials and components within the entire 3D-sphere.

Applications

Characterization of surfaces, coatings, and materials:

- Quality control, appearance
- Optical performance
- Roughness analysis

Specifications

- Measurement of light scattering (ARS, BRDF, BTDF, scatter loss), θ - 2θ , R and T
- Full 3D-spherical measurement capability
- Flexible variation of incident angle, scattering angle (azimuth and polar angles), wavelength, and polarization
- Area raster scans of sample surface
- Housed table top system ($< 1 \text{ m}^3$)
- Dynamic range: up to 15 orders of magnitude
- Background ARS: down to $1 \times 10^{-9} \text{ sr}^{-1}$
- Roughness equivalent sensitivity: $< 0.1 \text{ nm}$
- Wavelengths: 320 nm, 405 nm, 532 nm, 633 nm, 640 nm, 808 nm, and 1064 nm (other wavelengths on demand)
- Fiber port for coupling of external sources (e.g. tunable supercontinuum source)
- User-friendly software for measurement control and data analysis
- Analysis tools: roughness, PSD, etc.