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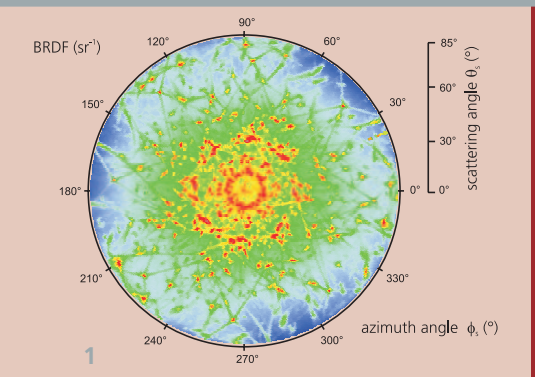

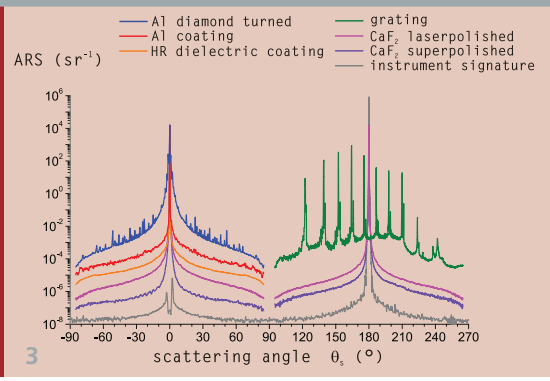

1 *3D reflectance and scattering distribution of a gemstone with facets.*
2 *Measurement system ALBATROSS-TT.*
3 *Examples of angle resolved scattering (ARS) measurements (azimuth angle 0°) in reflection and transmission hemispheres.*

ALBATROSS-TT TABLE-TOP SYSTEM FOR LIGHT SCATTER MEASUREMENT

System description

The new table top system *ALBATROSS-TT* (3D-Arrangement for Laser Based Transmittance, Reflectance and Optical Scatter measurement – Table Top) enables high 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
- In- and out-of-plane mode
- Flexible variation of incident angle, scattering angle (azimuth and polar angles), and polarization
- Area raster scans of sample surface
- Housed table top system (< 1 m³)
- Dynamic range: 13 orders of magnitude
- Backround ARS: $3x10^{-08}$ sr^{-1}
- Roughness equivalent sensitivity: < 0.1 nm
- Wavelengths: 405 nm, 532 nm, and 640 nm (other wavelengths on demand)
- User-friendly software for measurement control and data analysis
- Analysis tools: roughness, PSD, etc.

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