

AGILENT SOLIDS AUTOSAMPLER FOR THE CARY 7000 UMS AND UMA

The Measure of Confidence



Automate your materials analysis

The Solids Autosampler for the Cary 7000 Universal Measurement Spectrophotometer (UMS) and Universal Measurement Accessory (UMA) enhances the productivity and capabilities of these systems by allowing automated multisample analysis or the profiling of large diameter samples. Ideal for both research and QA/QC analysis of advanced materials such as thin films coatings, optics, glass and solar.

With the Cary 7000 UMS/UMA, you can:

- Measure absolute reflection and transmission at variable angles – unattended
- Reduce your cost-per-analysis, saving time and money
- Gain deeper insights by measuring absolute reflection and transmission without moving the sample

And now with the NEW Cary 7000 UMS Solids Autosampler you can:

- Further increase productivity and expand production capacity by measuring up to 32 samples in a single automated run
- Improve quality of end product and increase yield by testing more samples in less time
- Profile large samples (up to 8 in) for coating uniformity at spatial resolution down to 2 mm x 2 mm

Multisample analysis



Benefits

- Lower your cost-per-analysis with multisample automation, eliminating operator intervention between samples and between reflection and transmission measurements.
- Measure up to 32, 1 inch samples in a single run, or spatially profile and screen uncut 8 inch diameter wafers using the mapping feature.
- Maximize your capital investment, and testing capacity, by automating your QA/QC beyond a standard working week with unattended overnight, or weekend runs.

Mapping analysis

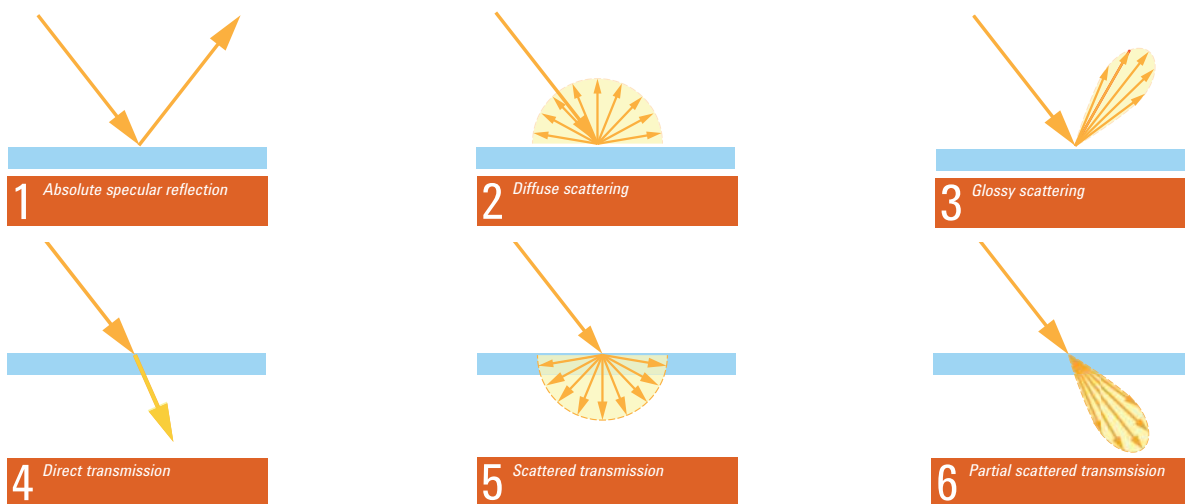


Agilent Technologies

Perform multiple measurements on up to 32 samples

The Cary 7000 UMS and UMA eliminates accessory changeovers and the need to set up multiple methods or move the sample, which can lead to inconsistencies in acquired spectral data.

6 measurements, 1 system



Solids Autosampler specifications

| | |
|--------------------------|--|
| Instrument compatibility | Cary 7000 UMS and Cary 4000/5000/6000i UV-Vis-NIR spectrophotometers fitted with a UMA |
| Measurement modes | Absolute specular reflection at variable angle from 5–65° in 0.02° intervals Direct transmission and variable angle transmission from 0–65° in 0.02° intervals Diffuse scattering, reflection or transmission through independent sample rotation (360°) and detector positioning between 10–350° at 0.02° in intervals Absorbance, A where $A = 1 - R - T$ at variable angle without moving the sample or beam onto the sample for improved productivity and greater accuracy Reflection/Transmission at single wavelength (read) or wavelength range (scan) |
| Wavelength range | Set by spectrophotometer and UMA, eg., 250–2500 nm for Cary 7000 UMS. |
| Sample holders | Multisample Holder: Two configurations provided. Mount up to 32 x 1 in diameter samples up to 10 mm thick with maximum angle of incidence 45° or mount up to 24 x 1 in diameter samples up to 10 mm thick with maximum angle of incidence 65°. Central hole in multisample holder permits re-baselining at user definable points during a long collect. Wafer Holder: Mount single 8 in diameter samples up to 3 mm thick. Maximum angle of incidence 65°. Universal Sample Holder: Accommodates irregular sized samples that mount within the 8 in diameter mounting space. Measurements can be made through 1 in diameter holes spaced regularly around the 8 in diameter holder. |

