

LEOI-98 Intermediate Spectrometer Goniometer

- Compact and stable
- High performance
- Affordable







This intermediate spectrometer goniometer is used for spectral and angle measurements to verify optical reflection, refraction, diffraction, interference and polarization principles.

Experimental examples are:

- 1. Measure prism angle based on reflection.
- 2. Measure min-deviation angle of prism based on refraction.
- 3. Calculate refractive index and dispersion of material.
- 4. Measure wavelength of light or grating constant based on diffraction and interference.

Using an optional Hydrogen lamp, atomic spectral lines of Hydrogen, such as the Balmer series, can be measured and the Rydberg constant can be calculated.

Using a set of optional polarizer, analyzer and quarter-wave plate, a variety of optical polarization experiments can be conducted, such as polarization by reflection and measurement of Brewster's angle, verification of Malus's law, generation of circularly and elliptically polarized light, and demonstration of ellipsometry.

A lambda

Specifications

| Angle measurement accuracy | 1' |
|--|--|
| Optical parameters | Focal length of objectives (collimation & telescope): 170 mm |
| | Effective aperture: dia 22 mm |
| | Field of view: 3°22' |
| | Focal length of eyepiece: 24.3 mm |
| Max. distance between collimator & telescope | 120 mm |
| Slit width | 0.02 - 2 mm adjustable |
| Eyepiece compensation range | ± 5 diopters |
| Stage | Diameter: 70 mm |
| | Rotating range: 360° |
| | Vertical adjustment: 20 mm |
| Scale disk | Diameter: 178 mm |
| | Graduation: 0 - 360° |
| | Division: 0.5° |
| | Vernier reading: 1' (two symmetrical verniers) |
| Prism | 60° ± 5', ZF1 (nD=1.6475, nF-nC=0.09192) |
| Transformer | 6.3 V |
| Holographic grating | 300 l/mm |

Part List

| Host spectrometer | 1 |
|---|------------------|
| Prism | 1 |
| Optical parallel plate | 1 |
| Handheld magnifier w/illumination | 1 |
| Holographic grating | 1 |
| Transformer | 1 |
| Brush | 1 |
| Spare lamp | 3 |
| Screw driver | 1 |
| User's manual | 1 |
| Polarizer, analyzer & quarter wave plate (for polarization experiments) | 1 set (optional) |
| Hydrogen-Deuterium lamp (for atomic spectrum experiment) | 1 set (optional) |



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Note: above product information is subject to change without notice.