

LEOI-98 Intermediate Spectrometer Goniometer

- Compact and stable
- High performance
- Affordable



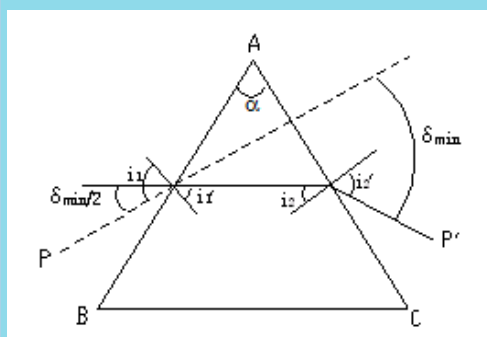
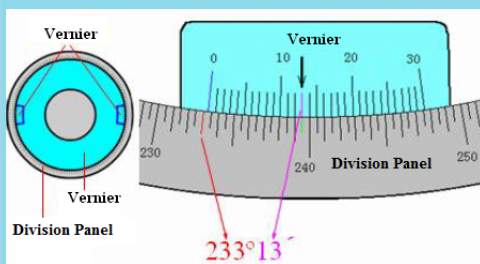
This intermediate spectrometer goniometer is used for spectral and angle measurements to verify optical reflection, refraction, diffraction, interference and polarization principles.

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.

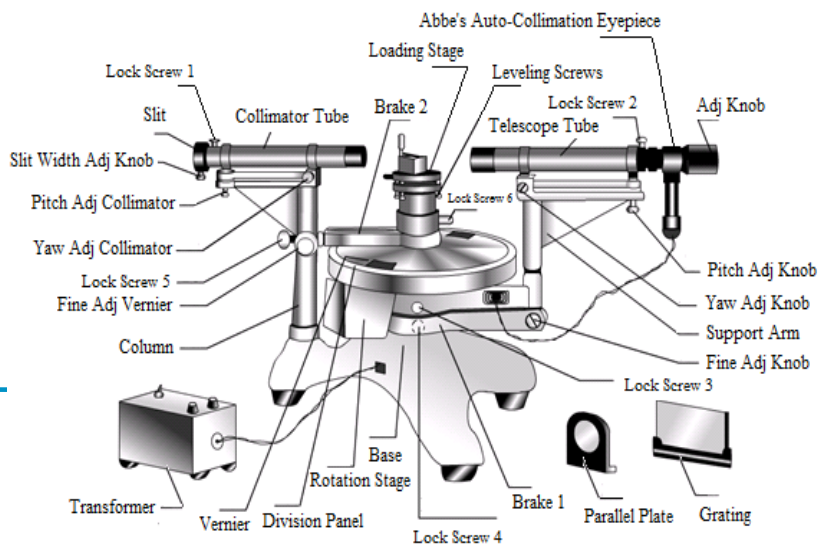


Specifications

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.