

# LEOI-101

## Modularized Multifunctional Grating Spectrometer



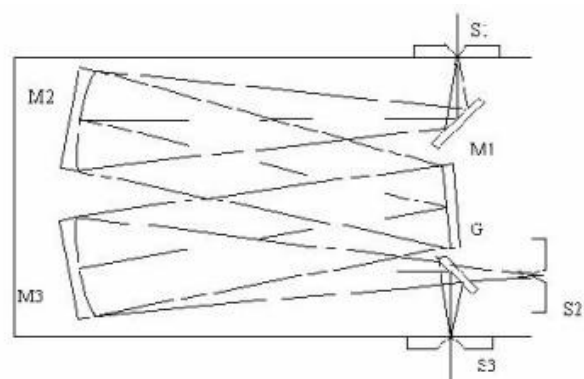
- *Spectral range: 200 to 660nm*
- *Modular structure*
- *USB interfaced to computer*
- *Two receivers: PMT & CCD*
- *High resolution; up to 0.06nm*

There is an increasing demand among universities for a general purpose measuring instrument.

We design this spectrometer to help students to continuously add to their concepts of light and wave phenomena and students may understand the basics of how a grating spectrometer works. The modular structure that makes experiments and tests much easier, are recommended to physics laboratories of institutions of higher learning. The system will measure Hydrogen-Deuterium and Sodium spectrum more accurately than conventional spectrometers. It provides flexible solutions for optical measurements.

Extensive experiments and test measurements have proved that the spectrometer has a high performance in a wide range of applications. It provides flexible solutions for optical measurements. Emission and absorption spectra can be measured.

### Schematic



## Features

A computer communicates with the spectrometer with a USB cable. The spectrometer obtains the spectral data from the digitized signal from the CCD camera or PMT and transmits the data to computer via the cable. Analysis of CCD or PMT data is performed by a Windows-based application.

You can manage process and extract information from acquired spectra. The measurements are carried out instantly. Results are shown in live and graphic displays. One-key or mouse selectable features make operation simple yet comprehensive.

The software is a family of Windows-based applications that control your spectrometer and manage, process and extract information from acquired spectra.

This software also allow user to build spectra library of their own.

## Specifications

Focal Length	500 mm
Wavelength Range	200~660 nm
Relative Aperture	D/F=1/7
Grating	2400 lines/mm; blazed wavelength at 250 nm
Stray Light	$\leq 10^{-3}$
Resolution	$\leq 0.06$ nm
Photomultiplier Tube	
Wavelength Range	200~660 nm
Wavelength Accuracy	$\pm 0.2$ nm
Repeatability of Wavelength	$\leq 0.1$ nm
CCD	
Receive Unit	2048 cells
Spectral Response Range	300~660 nm
Integrating Time	88 stops
Filter	White filter: 320~500 nm; yellow filter: 500~660 nm
Weight	25 kg

## Parts Included

Description	Qty
Grating monochromator	1
Power control box	1
USB cable	1
Filter	1
Power cable	3
Signal cable	2
Software CD	1

