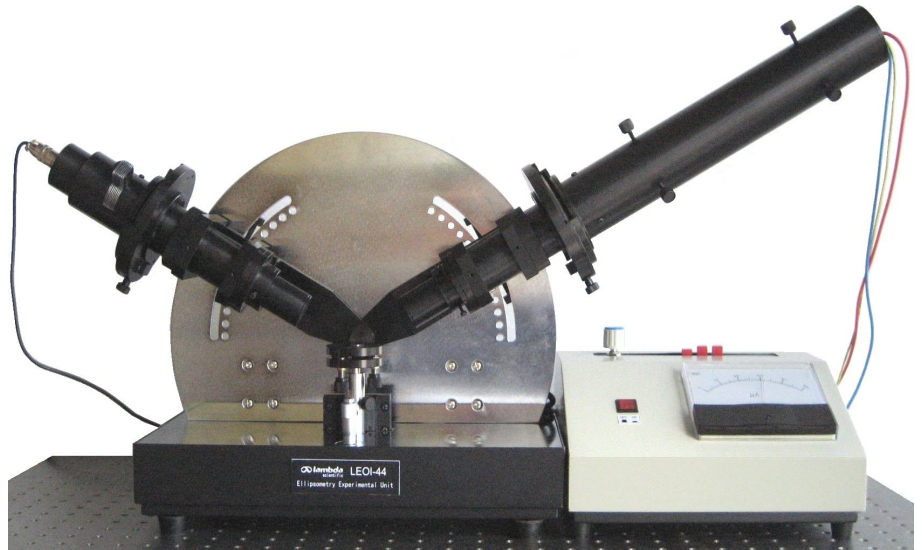


## LEOI-44 Ellipsometer

- *Stable steel base*
- *Ideal for demonstration*
- *Polarization by reflection*
- *Refractive index measurement*



This is a manually operated experimental demonstrator of ellipsometry. An input beam of random polarization is first transferred to a linearly polarized beam by passing through a polarizer, and is then transferred to an elliptically polarized beam by using a quarter-wave plate. As the beam is further incident on a sample film, the polarization status of the beam reflected from the film will be altered. Optical parameters such as the thickness and refractive index of the sample film can be calculated by analysis of the change in polarization. Through this system, students can gain a better understanding of the working principle of an ellipsometer and familiarize with the operation of the instrument.

## Specifications

Measurement Range	1 nm ~ 300 nm
Accuracy	$\leq 1$ nm
Incident Angle	$30^\circ \sim 90^\circ$ , error $\leq 0.1^\circ$
Angle of Polarizer/Analyzer	$0^\circ \sim 180^\circ$
Angle Scale	$2^\circ/\text{division}$
Minimum Reading of Vernier	$0.05^\circ$
Height of Optical Center	152 mm
Diameter of Work Stage	$\varnothing 50$ mm
Overall Dimension	$730 \times 230 \times 290$ mm
Weight	Approx. 20 kg

## Part List

Main machine unit	1
Laser tube	1
Amplifier (with laser power supply)	1
Sample ( $\text{SiO}_2$ film on Si wafer, thickness $\sim 150$ nm)	1
3-core cable	1
CD (Software & Manual)	1
Power cord	1