PRECISION ELLIPSOMETRY DEVICE
Mod. F-ES/EV

DESCRIPTION

Ellipsometry is an optical technique used for the analysis of a surface based on the change of polarization of light upon crossing the flat surface of a model.
The device helps students to investigate the physical process on which ellipsometry is based, enabling specific measurements such as determining the optical constant of a material (refractive and absorption index) and performing measurements of thickness on thin samples made of various substances.

A discussion about measurement uncertainty and error can also be included.

TRAINING PROGRAM

- Ellipsometry as optical technique for surface analysis
- Determination of the refractive index of various materials
- Determination of the absorption index of various materials
- Measurement of thickness of various solid samples

TECHNICAL SPECIFICATIONS

- 1 framework
- 1 circular polarizer
- 2 linear polarizer
- 1 wavelength filter λ/4
- Sample holder
- Graduated goniometer
- Green laser (532 nm), 1 mW
- Red Laser (650 nm), 1 mW
- Device for detecting the light beam to be connected to the datalogger mod. EV2010/EV
- Samples kit including: silicon substrate, monolayer silicon, sample of aluminium, glass disk

REQUIRED (NOT INCLUDED)

- **EVLAB DATALOGGER mod. EV2010/EV** including **SOFTWARE EVLAB WORKSPACE mod. SW-F-ES/EV** for a total control of interactive experiments
- **PERSONAL COMPUTER**

SUPPLIED WITH

THEORETICAL - EXPERIMENTAL HANDBOOK