

## UV-Vis SPECTROMETER EQUIPMENT



**MODEL:** LAMBDA 40 – PERKIN ELMER

**INSTALLATION PLACE:** Chemistry Lab,  
Department of Microelectronics

**DESCRIPTION:** A scanning double-beam spectrometer for the UV/Vis range; an all-reflecting optical system; with four selectable slit widths microprocessor and keyboard.

### SPECIFICATIONS

1. UV radiation source: deuterium lamp; prealigned
2. Vis radiation source halogen lamp; prealigned
3. Monochromator: holographic concave grating with 1053 lines/mm in the center
4. Detector: Photodiodes (one for the sample beam and one for the reference beam)
5. A system of five mirrors and a filter wheel that guide the radiation beam to the sample and reference cell
6. Wavelength range: 190-1100 nm
7. Wavelength accuracy:  $\pm 0.3$  nm
8. Wavelength reproducibility:  $\pm 0.1$  nm
9. Spectral bandwidth: 0.5-4 nm
10. Lamp change: automatically at 326 nm
11. Scan speeds: 7.5-2880 nm/min
12. Photometric range: Transmission 0-100%; Absorbance -6.000 – 6.000
13. Photometric accuracy:  $\pm 0.003$

### APPLICATIONS

1. Absorbance/Transmission spectra: films with thickness range 0.01-10  $\mu\text{m}$ , depending on the film material (e.g. polymers, metal oxides, etc.); aqueous and organic solutions.
2. Reflection spectra: films of the same range
3. Substrates for films: quartz and glass slides
4. Substrates for solutions: quartz and glass cuvettes

### CERTIFICATION/ACCREDITATION

The facility is not certified or accredited.

### CONTACT PERSON

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