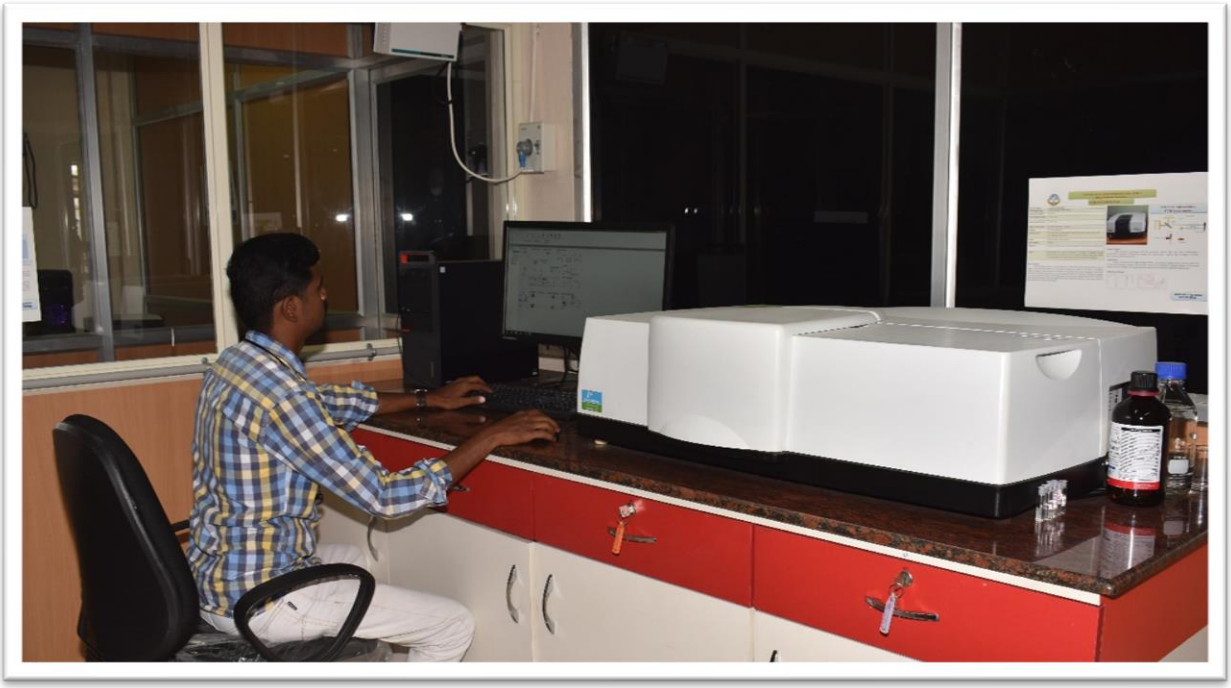
UV-VIS - NIR Spectrophotometer

- A UV-Vis-NIR spectrophotometer measures how light is absorbed, reflected, or transmitted by a sample (liquids and solids) across a range of wavelengths.
- The technique is non-destructive, allowing the sample to be reused or proceed to further processing or analyses.
- The UV VIS- NIR Spectrophotometer is an instrument ideally suited for Chemistry and Material science applications, busy academic and industrial laboratories that perform measurement of liquids, gels, and solid materials and need the flexibility of sampling along with high measurement performance.



Specific Features of the UV VIS- NIR Spectrophotometer:

- A double-beam, double-monochromator design of Lambda 750 provides the highest possible stability coupled with the highest accuracy and lowest stray-light performance.
- Extension of the measurement range into the Near-IR region of the spectrum provides richer and complementary spectral information for many compounds and materials.
- A choice of cells and sample holders allows virtually any liquid sample to be measured. Options include long-path cells, test-tube holders, flow-through cells, and micro and semi-micro cells.
- Powder analysis is easily accomplished using the 60 mm integrating sphere in reflectance measurement mode -raw materials testing, organic and inorganic chemicals, geological and powdered polymers, and coatings

Technical specifications

Model Name	LAMBDA 750
Detectors	High sensitivity R928 Photomultiplier (PMT) for UV/Vis and Peltier cooled PBS detector for NIR
Wavelength Range	190 - 3300 nm
Wavelength Resolution	0.17 - 5.0 nm UV/ViS 0.2 - 20.0 nm in NIR
Light Source	Tungsten-halogen and Deuterium
Operating Software in Windows	PerkinElmer UV Winlab

Integrating sphere size (for Reflectance measurement)	60 mm
Wavelength Scan Operation	Full or partial range spectral characterization
Wavelength program Operation	Rapid measurement at single or multiple discrete wavelengths
Quant and Scanning Quant Operation	Quantitative Analysis on discrete peaks or full spectra
Time-Drive Operation	Kinetics, including general and enzyme kinetics
Ideal Samples	Transmission of liquids, turbid liquids and solids
Typical Application Areas	Inorganic and organic chemistry Quality Control of raw materials and final products Biological Sciences - DNA, Protein, Blood Academia - teaching experiments Materials Science

Sample Requirements

For Solid Samples : Minimum 5mm X 5mm, maximum 6 inch

For Liquid Samples : Approx. 10ml

For Powder Samples : Approx. 20mg

Details

Brand	PerkinElmer LAMBDA 750
Model	LAMBDA 750
Sponsored Agency	DST- PURSE program (Phase -2)