Name of Machine	UV-Vis Spectrometer(UV/Vis)		
Make	PerkinElmer	Model	Lambda25(Fig. 1)

Specification

1.Range:- 190-1100nm
2.Accuracy:- Â±0.1 nm
3.Absorbance Range:- -3 to 4 A
4.Bandwidth model 25:- 1 nm, fixed
5.Photometric Accuracy:- Â±0.001 nm

Working principle:

Ultraviolet–visible spectroscopy or ultraviolet-visible spectrophotometry (UV Vis or UV/Vis) refers to absorption spectroscopy or reflectance spectroscopy in the ultraviolet-visible spectral region. This means it uses light in the visible and adjacent ranges. The absorption or reflectance in the visible range directly affects the perceived color of the chemicals involved. In this region of the electromagnetic spectrum, atoms and molecules undergo electronic transitions. Absorption spectroscopy is complementary to fluorescence spectroscopy, in that fluorescence deals with transitions from the excited state to the ground state, while absorption measures transitions from the ground state to the excited state.

Application

UV/Vis spectroscopy is routinely used in analytical chemistry for the quantitative determination of different analytes, such as transition metal ions, highly conjugated organic compounds, and biological macromolecules. Spectroscopic analysis is commonly carried out in solutions.

User Instruction

- About 10ml of pre-treated samples should be submitted for analysis.
- Type of sample matrix (marine/estuarine/lake/river/soil/etc.,) should be provided.
- Provide details of any prior treatment of the sample, such as cleaning, drying, and treatment with solvents or preservatives.
- Please contact us to ensure your samples are in a suitable format for processing.
- Send samples in labelled plastic vials/covers. Indicate if any samples are likely to be toxic or corrosive.

Contact Person

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