


<b>Name of Machine</b>	<b>UV-Vis Spectrometer(UV/Vis)</b>		
<b>Make</b>	<b>PerkinElmer</b>	<b>Model</b>	<b>Lambda25(Fig. 1)</b>
			
<b>Specification</b>			
1.Range:- 190-1100nm 2.Accuracy:- $\pm 0.1$ nm 3.Absorbance Range:- -3 to 4 A 4.Bandwidth model 25:- 1 nm, fixed 5.Photometric Accuracy:- $\pm 0.001$ nm			
<b>Working principle:</b>			
Ultraviolet–visible spectroscopy or ultraviolet-visible spectrophotometry (UV Vis or UV/Vis) refers to <u>absorption spectroscopy</u> or reflectance spectroscopy in the <u>ultraviolet-visible</u> 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 <u>color of the chemicals</u> involved. In this region of the <u>electromagnetic spectrum</u> , <u>atoms</u> and <u>molecules</u> undergo <u>electronic transitions</u> . Absorption spectroscopy is complementary to <u>fluorescence spectroscopy</u> , in that <u>fluorescence</u> deals with transitions from the <u>excited state</u> to the <u>ground state</u> , while absorption measures transitions from the ground state to the excited state.			
<b>Application</b>			
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.			
<b>User Instruction</b>			
<ul style="list-style-type: none"> <li>• About 10ml of pre-treated samples should be submitted for analysis.</li> <li>• Type of sample matrix (marine/estuarine/lake/river/soil/etc.,) should be provided.</li> <li>• Provide details of any prior treatment of the sample, such as cleaning, drying, and treatment with solvents or preservatives.</li> <li>• Please contact us to ensure your samples are in a suitable format for processing.</li> <li>• Send samples in labelled plastic vials/covers. Indicate if any samples are likely to be toxic or corrosive.</li> </ul>			
<b>Contact Person</b>			
<b>In-Charge</b>	Dr.Anupam Sharma (0522-2742974); <i>Email</i> <a href="mailto:anupam110367@gmail.com">anupam110367@gmail.com</a> ; <a href="mailto:anupam.sharma@bsip.res.in">anupam.sharma@bsip.res.in</a>		
<b>Staff:</b>	2. <i>Dr.Pawan Govil</i> (0522-2742969) <i>Email:</i> <a href="mailto:pawanali@gmail.com">pawanali@gmail.com</a> , <a href="mailto:pawan_govil@bsip.res.in">pawan_govil@bsip.res.in</a>		

### charges

Sl. No.	Instrument/Analysis	Govt. Organization (University/Research Institutes) (Rates quoted = Rs. )	Student charges	Private sector/ Industry	Remarks (if any)
1.	<b>UV-Vis Spectroscopy Lab</b> a. UV-Vis (liquid sample only)	500.00	375.00	1000.00	

### Guideline

1. The analytical data/spectra provided cannot be used as certificates in legal disputes.
2. Service charges (including GST) will be payable in advance (Draft/RTGS/NEFT) in favour of "The Director, BSIP, Lucknow". Payable at Lucknow
3. Separate samples should be sent for different analysis. Samples will not be analysed until payment is received.
4. In case of prepared samples, the user must specify the procedure that how the sample was prepared (complete methodology).
5. In all correspondence related to analysis, our reference number must be mentioned.
6. Individual Scientists and Research fellows should send their application and samples through their project head. Discount in analysis charges for research fellows of universities/institutes will be decided by the Director in consultation with respective lab.
7. Interpretation of data/spectra will NOT be done.
8. It is mandatory for user to acknowledge the facility in their research work and communicate the same to the respective laboratory and the Director, BSIP, Lucknow for onward communication to DST, New Delhi.

For Lab visit, it is mandatory to take prior appointment from Director, BSIP before your visit. The application should be sent through department/Senior official of institution/Company. No deviation will be allowed for the timings.

To be filled in by the user while submitting the form

Job No as UV-VIS CF

Date of submission:

REQUISITION FORM

**BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES, LUCKNOW**

53, University Road, Lucknow, Ph. 0522-2740008, 2740399

(UV/VIS Central Facility)

Geochemistry Lab

**(Information to be filled in by the user)**

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Email and Mobile No.: \_\_\_\_\_

Category (Inhouse/inhouse sponsored/Govt. organization/private): \_\_\_\_\_

Number of samples: \_\_\_\_\_

Nature of samples (with details): \_\_\_\_\_

Scientific Objective of this study: \_\_\_\_\_  
\_\_\_\_\_

Additional information, if any: \_\_\_\_\_  
\_\_\_\_\_

Location (Lat& Long): \_\_\_\_\_

Exposed Section/Trench/Core/Others: \_\_\_\_\_

Sample pretreatment method used: \_\_\_\_\_  
\_\_\_\_\_

**(For office use only)**

Lab Reference No.:

R.P.C.C./ Registrar : Kindly raise the bill for the above

Total Charges:

Taxes:

Grand Total:

To be filled in by the user while submitting the form

SAMPLE INFORMATION FORM  
**BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES, LUCKNOW**  
53, University Road, Lucknow, Ph. 0522-2740008, 2740399  
(UV spectrophotometer Central Facility)  
Geochemistry Lab

**(Information to be filled in by the user)**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Email and Mobile No.: \_\_\_\_\_

Category (Inhouse/inhouse sponsored/Govt. organization/private): \_\_\_\_\_

Number of samples: \_\_\_\_\_

Sl. No.	Sample ID	Type/Nature of Sample	Quantity	Year of collection	Lat./Long.	Remarks, if any
1						
2						
3						
4						
5						