

TENDER NOTICE
Notice No.: 01/2020-2021
For the Purchase of UV-VIS-NIR Spectrophotometer
Instrument

Sealed tenders in two-bid format are invited from original manufacturers or their authorized dealers for supply, installation, testing & commissioning of **UV-VIS-NIR Spectrophotometer instrument** and related accessories:

The instrument shall confirm to the requirements of the specification including spares, accessories, and consumables as mentioned below in Part – A of tender document. **Irrespective of these specifications any comparable version or higher version of the system will also be considered.**

The bidder must comply with all conditions laid down in PART-A, PART-B, PART-C of Tender document

The tender for equipment must be sent in sealed envelope with the Superscription “**TENDER FOR UV-VIS-NIR SPECTROPHOTOMETER INSTRUMENT FOR SICART**” and addressed to Hon. Director, SICART, Charutar Vidya Mandal, Mota Bazar, Vallabh Vidyanagar-388120, Dist: Anand (Gujarat), India, along with necessary tender fees of **Rs. 5,000.00.**

1	Last date for submission of tender	09/03/2021
2	Date of opening of tender	10/03/2021 at 11.00 a.m
3	Earnest Money deposit	2 % of the Quoted Value in the form of At par Cheque in rupees
4	Security Deposit	5% of order value in the form of Bank Guarantee (before placing the PO)
5	Tender Fees (non – refundable)	Rs. 5,000/- Cheque or D/D in favour of “SICART- CVM”

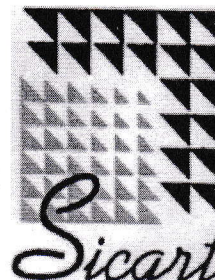
Tender Document Contains:

Part - A : Specifications
Part - B : General Terms & Conditions
Part - C : Information to be provided by supplier

Hon. Director
SICART
CHARUTAR VIDYA MANDAL
VALLABH VIDYANAGAR – 388120
Dist: ANAND, GUJARAT



**SOPHISTICATED INSTRUMENTATION CENTRE
FOR APPLIED RESEARCH AND TESTING**
(Sponsored by Department of Science & Technology, Govt. of India, New Delhi)
NABL Accredited laboratory, Certificate No.TC-5124
Sardar Patel Centre for Science & Technology
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Phone: +91-2692-234966
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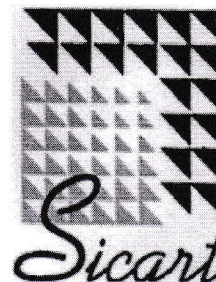


Tender Document for the Purchase of UV-VIS-NIR Spectrophotometer



Hon. Director
SICART
CHARUTAR VIDYA MANDAL





PART – A

MAIN FEATURES AND TECHNICAL SPECIFICATIONS:

- Uv-Vis-NIR Spectrophotometer should use light to qualitatively and quantitatively analyze samples based on how much light travels through the sample and how much is reflected off it. Measurements in the ultraviolet/visible region (UV-VIS) cover wavelengths from about 180 nm to 800 nm. The absorption of ultraviolet or visible radiation by a molecule leads to transitions among the electronic energy levels of the molecule.
- The Near-IR region (NIR) of the electromagnetic spectrum utilizes wavelengths from about 800-3300 nm. The transitions measured in this region are generally related to overtone and combination bands of mid-infrared vibrational modes.

(1st and 2nd Order derivatives)

- Instrument should be capable to determine the optical properties like Absorbance, Transmission & Reflectance of liquids and solids.
- It can be applied to characterize sample like liquid, powder, textile, thin films, coatings, glass, paint and many other research and manufacturing materials. Instrument should be designed to provide the maximum sampling flexibility for complex samples in various fields.
- It should be capable of determining color matching values.
- Powder analysis should easily accomplished using the integrating sphere raw materials testing, organic, inorganic chemicals and herbal drugs, etc
- Specular, diffuse and total reflectance measurements using 100/150mm integrating sphere, allow rapid analysis of continuous solids such as glass, textiles, polymers and coated surfaces.



Main features and specification of the proposed instrument:

Sr. No.	Components	Description
01	Basic Configurations	<p>Optical Principle: Instrument should be equipped with double beam, double monochromator, ratio recording UV/Vis/NIR spectrophotometer with compatible personal computer.</p> <p>Optical System: Instrument should be equipped with Holographic grating monochromator with 1200-1400 lines/mm or better. System should come with blazed in UV/Vis & in NIR Region as well with suitable and superior reflective coating.</p> <p>Beam Splitting System: System should come with minimum four segmented chopper mechanism to avoid shifting of peaks irrespective of scan speed. (Chopper : 30-46 HZ or better) System should come with software programmable Sample and Reference beam attenuators for high absorbance measurements. System should come with Precise Adjustment of beam height to match samples of different dimensions. The S & R beams should have separation of minimum 10 cm to accommodate larger samples. Main sample compartment should have purging facility</p> <p>Sample Compartment: Two separate sample compartments for routine sample measurement and for accessory mounting to avoid frequent alignment disturbance. 10mm cuvette holders should be standard supply with the system The sample compartments should be large enough to accommodate the diffuse reflectance and specular reflectance accessories eliminating the need for any manual alignments and calibration.</p>
02	Wavelength Range	180 nm to 3300 nm
03	Detector	<p>For UV-VIS region: Photo multiplier tube (PMT) with high energy detector, Performance should not be hampered by varying sample thickness.</p> <p>For NIR Region: Peltier cooled suitable detectors PbS.</p>
04	Source	Pre-aligned tungsten-halogen and deuterium lamp should be included

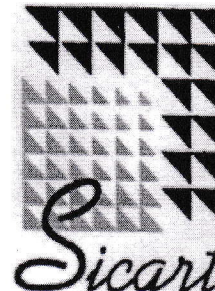


Sr. No.	Components	Description
05	Specification	<p>Spectral bandwidth: UV-VIS: 0.05 nm – 10nm or better NIR: 0.2nm – 40nm or better</p> <p>Resolution: UV-VIS: ≤0.05nm or better NIR: ≤0.20 nm or better</p> <p>Wavelength Accuracy: UV/VIS: ± 0.080 nm or better NIR: ± 0.30 nm or better</p> <p>Wavelength Reproducibility: UV/VIS (Deuterium lamp lines) ≤0.005 nm or better NIR (Deuterium lamp lines) ≤0.020 nm or better</p> <p>Photometric Range: UV/VIS: 4-8 unit Absorbance or better NIR: 3-8Unit Absorbance or better</p> <p>Photometric accuracy: ± 0.0003 A or better (Double Aperture Method 1 A) ± 0.003 A or better (NIST® 930D Filters 1 A)</p> <p>Scanning Speed: 10-4000 nm/min or better Standard programs Required: Software should have the flexibility of various standard calculations for Absorbance, % Transmission, % Reflectance, wavelength maxima, band gap, Colour matching.</p> <p>Quantitative analysis, Spectrum measurement, Time course measurement, Fixed wavelength measurement, Validation, Daily Check, Dual wavelength time course measurement, Color matching value</p> <p>Graphical Display: Enhanced graphics control module with automatic peak labeling, grids, multiple line types, zoom, free and tracking cursor, multiple ordinate and abscissa formats, smart copy/paste and overlay modes for easy spectral interpretation, presentation and publication.</p>
06	Integrating Sphere with PbS detector suitable for 180-3300 nm.	<p>100-150 mm diameter sphere or better should be Included.</p> <p>8 degree sample and reference reflectance ports with removable light trap</p> <p>Wavelength range – 180 nm to 3300 nm</p> <p>Calibrated diffused reflectance standard should be provided</p>
07	Calibration Standard	Various Standard Reference materials for calibrations to be included, (NIST Certified) for both Absorbance and Reflectance mode.
08	Computer	<p>(a) A desk top PC should be provided for all operations of UV-VIS-NIR Spectrophotometer with minimum Core i10 or higher processor, 8× DVD-RW drive facility, >500 GB HDD, >4 GB DDR RAM, 21" LCD Monitor, Minimum 9 USB drives, Latest Windows operating system.</p> <p>(b) A color laser printer shall be provided for graphic work.</p>



Sr. No.	Components	Description
09	Other accessories	Cuvettes (Quartz and Glass) should be included, Sample holder for powder sample(for NIR) to be included.
10	UPS	Minimum 5 KVA with 2 year AMC after warranty. Online branded appropriate UPS to run UV-VIS-NIR system with 2 Hours battery backup. The Cost of UPS should be separately Quoted.
11	Installation qualification, Operational qualification, Performance qualification (IQ,OQ,PQ)	IQ, OQ,PQ documentation is required at the time of installation of the instrument.
12	Manual	2 set of Operation and maintenance manuals in English language should be supplied along with system.





PART – B

GENERAL TERMS & CONDITIONS:

(A) Invoice / Price / Cost:

1. Invoice should have the costing of each unit /component of Instrument separately.
2. The rates should be quoted for each item (including Indian item), stating the specific Brand / Make / Model no. etc. with taxes. The bidder must quote for the equipment in accordance with the specifications mentioned in the tender document which is forming a part of the contract.

The bidders, nevertheless, may submit the offer for similar comparable equipment under the head "option:" and quote separately for such similar equipments or accessories. The price may also be quoted in foreign currency i.e Dollar, Pound, Euro etc. by authorized representatives of imported equipment.

3. The rates should be inclusive of all taxes FOR destination at the institute and should be quoted in the following format.

- 3.1 Basic prices of the Unit _____
- 3.2 Price of necessary accessories / spares / chemicals / glassware's etc. with detailed specifications to be supplied with basic unit and for optional.
- 3.3 Taxes :
 - GST _____
 - Other taxes _____
- 3.4 Packing and Forwarding _____
- 3.5 Mode of Transport for (Delivery at the centre located in Vallabh Vidyanagar, Dist: Anand in Gujarat) _____
- 3.6 Installation and Commissioning & Training _____
- 3.7 Total _____
- 3.8 The total price for each item as delivered in 2.7 above should be quoted in bill of material.

4. The Purchaser being educational & Research institute, the concessions applicable in rates / taxes under State / Central Government notification should be considered while quoting. The institution can, however, issue a certificate that the equipment being procured would be used exclusively for teaching / research purposes.
5. In the event of material supplied are not being in accordance to the specifications of items ordered, the supplier will bear the cost and risk and shall arrange to replace the same without any claims whatsoever for the same
6. In case the quoted rates are as per the valid and prevailing contract with DGS and D, New Delhi, the supplier shall furnish certified photocopy of the same to the purchaser. It may also be mentioned whether supplier can accept a direct order based on DGS and D rate Contract



7. **The earnest money deposit:** The tender copy duly filed in must accompany At par Cheque in rupees for 2% of the quoted value in favor of **"SICART - CVM"**. This money shall be refunded to the unsuccessful dealer, as far as possible within 60 days from the date of the opening of the tenders; no interest shall be paid on earnest money deposit. Any offer received without the EMD shall stand wholly rejected. Nevertheless, decision by CVM's authority on such matter shall remain final and binding
8. Please also certify in the quotation that the prices quoted are as laid down in the Manufacturers/sole distributor's price list.
9. Any special discount for educations/research institution should be specified.

(B) Pre-installations/Installation/Commissioning /Delivery period/Manuals etc.

10. The instrument and all its sub units should operate on 230 \pm 10 volts, 50 Hz power supply.
11. Pre- installation requirements such as power requirement (single phase or three phase, Power load, UPS) Cooling water supply, air compressor, air condition machine etc. if any) should be provided and specified.
12. The supplier or the Indian representative should install the system and bring in to complete operation, at the centre in Vallabh Vidyanagar in Gujarat or on a location of the purchaser's choice and to purchaser's satisfaction, without any charge.
13. Principal should submit the compliance certificate at the time of installation.
14. The supplier should clearly state the delivery period and time period required for installation and commissioning of the equipment, from the date of receipt of firm order. In case, if supplier anticipates delay in delivery of any or all items due to the reasons beyond its control, the supplier shall apply for suitable extension stating the reason for the same and state its confirm date of delivery. The purchaser, if feels suitable may extend the delivery date. In the case of any unavoidable pandemic situation, warranty should be extended by supplier.
15. IQ, OQ and PQ documents to be supplied after installation and commissioning of the system.
16. In case of delay of delivery of the equipment beyond the stipulated period, a penalty of 5% (Five Percent) of the total value of the ordered equipment will be levied for each delay or part thereof. The maximum penalty however shall not exceed 25% of the ordered value.
17. The supplier shall provide two sets of both technical service manual and operation/installation manual along with the dust cover for the equipment free of cost. Manuals must be in English language.

(C) Warranty / After Sales Service / Repair :

18. Comprehensive warranty with free of cost supply of spares for 03 (three) years from the date of successful commissioning of the instrument should be covered. Also, after three years warranty, extended warranty up to 2 years to be covered separately.
19. The supplier/ manufacturer shall have to arrange for after sales service as well as Operations & Maintenance (O & M) through their Indian agent/representative. The details are to be specifically mentioned in their bid proposal. However, the purchaser will place a single order in the name of bidder and no separate order in the name of the Indian Representative/ Agent will be placed for after sales/ O & M service.
20. The main unit and all the sub units of the instrument should be serviced by the Indian representative of the supplier / manufacturer.
21. The maximum down time period for repairs of the equipment shall be 72 hours from the date of notification by the purchaser to the bidder / supplier.



22. In case of the authorized dealers quoting on behalf of manufacturers, a copy of certificate stating that the equipment is being quoted by the party is on behalf of the concerned manufacturer and manufacturer undertake the responsibility to provide the after sales maintenance of the equipment.
23. The supplier or the Indian representative should give performance/operational warranty for (i) the Complete system for three years from the date of the completion of the satisfactory installation and commissioning (ii) Critical and non critical spares (iii) and service back up including commitment for the availability of the spares, of the system for a period of minimum 10 years from the date of installation. Also in case of equipment going out of production, at least two years advance notice should be given to enable, one time procurement of the spares.
24. The supplier shall arrange for repair / replacement of the defective / worn out components, of the equipment at our place during the warranty period at purchaser's first instructions within 10 (Ten) days. This will be carried out at the cost of supplier and no charges whatsoever will be paid including the T.A and D.A of the personnel deputed by the supplier for the same.
25. The supplier will be required to get instrument serviced twice in a year for its satisfactory operation during the warranty period of three years. Necessary calibration of the instrument will be done by the supplier as and when required. Separate rates for the calibration shall be quoted along with the period of calibration required.

(D) Demonstration and Training:

26. Demonstration and training for operators of all modules. This should include (besides standard samples) the satisfactory analysis of at least (5) SICART samples carried out by SICART Scientists. Minimum four (04) trainings may be provided at our site until the users satisfy with training. Minimum three persons of SICART to be trained.

(E) Payment :

- 1 Advance payment will not be made.
- 2 70% of the total amount will be paid by wire transfer / LC on supply of equipment and after checking for specifications and after installation and successful commissioning of the equipment. In case where the equipment has not been found in conformity of the specifications as per the final purchase order, the same shall stand rejected.
- 3 Remaining 30 % of the amount will be paid within 3 months from the date of installation and successful operation of the equipment.

(F) Forfeiture of Security Deposit:

27. Forfeiture of Security Deposit Clause for Imported Items.

1. No change in items and conditions of dealer's will be permitted once the LC is opened or mode of payment is decided. If due to a default on the dealer's part the LC lapses or is to be cancelled, than the security deposit of the dealer will be forfeited, in addition to it the dealer will be liable for payment of excess amount (more than the security deposit) spent on opening of the LC or other related expenses.
2. If the imported instrument is not installed properly within the stipulated time and/or the service manuals are not provided within the stipulated time, the security deposit will be forfeited.



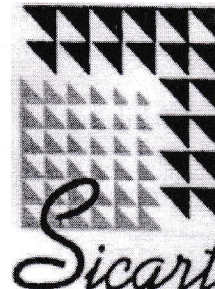
(G) User's List :

28. Bidders shall supply users list. In addition, they shall invariably furnish documentary evidence in the form of clients certificate (minimum 3) in support of satisfactorily supply and operation of the equipment.

(H) General :

29. Should the circumstances warrant that in overall interest of the purchaser an assessment is requirement of the capability and capacity of the bidder to perform and to execute the contract, purchaser reserves the right to assess notwithstanding anything stated above.
30. Conditional tender may not be accepted.
31. Incomplete or unsatisfactory tenders will be rejected without assigning any reason thereof.
32. The validity of the tender may be kept open for a minimum period of 180 days after the receipt of the quotation which may further be extended if need arises.
33. The authority of CVM reserves all the rights to increase or decrease the quantity of or split of the items of the tender at any time while finalization of the award.
34. The CVM authority also reserves the right to reject any or all of tenders without assigning any reasons thereof.
35. In case of any dispute the Jurisdiction shall be ANAND.
36. Tenders received late shall not be accepted. All the tenders shall be opened in presence of the bidders in the office of SICART in accordance with the date & time specified in the tender notice.
37. The manufactures printed leaflet, technical literature of specifications of every item quoted should be accompanied with the quotation failing which quotations will be summarily rejected.
38. In case of a firm whose quotation shall be accepted and order value is more than Rupees 1 lakh, the firm shall have to give an affidavit/declaration on non-judicial stamp paper, to be signed before competent magistrate for installation, free warrantee service during warranty period, for assurance for the supply of spare parts, components on payment basis and also for refund or adjustment of payment against advanced payment made.
39. No correspondence queries or reminders or personal visits regarding quotation position or ordering action will be entertained or replied. Orders when finalized will be intimated to the parties concerned ONLY.
40. Before placing the orders, we may ask the dealers/ suppliers to give us the demonstration of their equipment/instrument at their factory or other laboratories. They have to make all the necessary arrangements and expenses for the same.
41. Essential Spares and Consumables: Tool kit with all mechanical tools and accessories for the system installation and regular operation should be provided.





PART - C

Following information must be provided on the letter head of the supplier with due signature.

a) Name of the firm

b) Type of Business Organization :
(Please tick (√) mark as applicable)

- ☐ Sole Proprietorship
- ☐ Partnership
- ☐ LLP
- ☐ Pvt. Ltd. Company
- ☐ Public Ltd. Company
- ☐ Any other (Please specify)

Please attach copy of relevant document.

c) Name of sole Proprietor or managing Partners or Managing Director and other Directors with addresses, telephone Numbers and Email IDs :

d) Details of registered office and other Regional Offices

e) Details about persons to be contacted (Name, Address, Email and Mobile Number)

- (i) For any query related to tender documents submitted
- (ii) For any query related to technical aspects
- (iii)
- (iv) Legal Authority

