

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

FORMAT OF TENDER

NIT No. IACS-P/SPSDB/2023-24/31

Date: 04.10.2023

Sealed tender in two bids system (technical bid and price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for **one closed cycle optical cryostat**.

Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelop, that should be sealed and superscribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Completed tender bids should reach the office of **School of Physical Sciences, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032** on or before the scheduled date and time specified below:

Tender Notice No.	NIT No. IACS-P/SPSDB/2023-24/31 Date: 04.10.2023
Last date and time of submitting tender	01.11.2023, 4.00 PM
Date, time and venue of Pre-bid meeting to discuss technical specification	12.10.2023, 03.00 PM https://meet.google.com/iwt-gwfk-snt
Date, time and venue of opening technical bid of the tender	03.11.2023, 11.30 AM, IACS, Room no: M-002
Date, time and venue of opening the price bid of the tender	Will be informed later
Contact: Prof. Durga Basak	Email: sspdb@iacs.res.in Tel: 91-033-24734971 extn. 1316

*If you wish to participate in the online Pre-bid meeting, please write a mail to the email account (sspdb@iacs.res.in) on behalf of your company.

The technical bids will be opened first to judge/evaluate the technical specifications of the said instrument and thereafter the price bids of only technically qualified bidders will be opened.

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly super scribed as 'TECHNICAL BID' on the outer cover of the envelop as already detailed above. It should be clearly mentioned on the envelope as "Technical Specification for closed cycle optical cryostat".

Technical Specification for closed cycle optical cryostat

1. Closed Cycle Refrigerator with optical window and sample in vacuum for PL measurements with following features:

- Two-stage Cryocooler with suitable compressor with the following specifications.
 - Temperature range: 10 K (± 1 K) to 325 K for bare Cryocooler.
 - Initial cooldown time: ~120 minutes to 12 K at 50 Hz
 - Cooling power: ~1.8 watts at 20 K (second stage), ~7 watts at 77 K (first stage) for Bare cold head
 - Power requirements at 50 Hz: 200VAC, 220-240 VAC, 1 Phase, ~2.4 kW.
 - Cooling water requirements: ~ 3.8 litres/min @ 4-27 degrees C
 - Recommended maintenance interval: Cold Head: 13,000 hours, Compressor: 30,000 hours
 - Orientation: The system should be orientation free
 - Water-cooled compressor with full charge of high-purity helium gas
 - Minimum 10' long flexi lines, cold head control cable, wrenches, and operating manual
- 50 Ohm control heater and standard calibrated silicon diode temperature sensor
- Highly polished aluminium radiation shield (with optical access) mounted on first stage. The radiation shield should be of bolted style.
- Vacuum shroud should be with KF Flange for easy use: The Vacuum shroud should include 3.25" or less square window block with four at least 1.6" diameter clear view with O-ring sealed fused Quartz Windows
- The vacuum shroud with the window blocks should be fitted into a sample compartment of opening 4" X 4". Laser should be directed to the sample on the mount.
- Instrumentation skirt with 10-pin electrical feedthrough for heater and temperature sensor wires.
- Should include Mini connectors in the middle of wires for easier sample holder change without the need of unsoldering/resoldering wires.
- Two (2) blank ports, evacuation valve and safety pressure relief valve
- One gold-plated oxygen free high purity copper (OFHC) sample mount for reflection geometry (at 45 degrees to the incoming laser) for PL Spectroscopy. The sample holder should be bolted to the cold head.
- Vibrations on the sample mount should in the range 10-20 microns.

2. The temperature controller features (Make: Lakeshore)

- Two independent diode / resistor input channels.
- Two independent heater output loops (1st loop 50 Watts max, 2nd loop 25 Watts max, or 1st loop 75 Watts max, 2nd loop 1 Watt max)
- Autotuning PID, audible and visual alarms, and relays.

- USB and GPIB (IEEE-488) parallel computer interfaces.
- Power Requirement: 220, or 240 VAC, (+6%, -10%), 50 or 60 Hz

3. Integrated Software:

- Software with scripting development license; Should include lifetime activation for version purchased and full capability on up to 5 computers with instrument drivers, chart recorder functionality, and drag-and-drop measurement sequences.

4. Optional:

- One (1) 10-pin electrical feedthrough for customer experiment with 4 nos Ph-Br wire.
- Sample holder with 8 pins for electrical experiments. Sample holder should be bolted type.
- Suitable water chiller should be quoted as option.

System Warranty: 1 year from the date of Installation.

Service Facility: Supplier should mention the details of their service setup and man powers in India, preferably Kolkata.

Technical compliance chart should be provided following format,

Sr. No	Tender specification	Your offered instrument specification	Extent of compliance

Tender will not be accepted if the technical compliance chart is not provided following the above format.

2. PRICE BID

The financial bid indicating (item-wise, if required) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly superscribed as 'PRICE BID' on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and the corresponding manufacturer/exclusive distributor/vendors will be intimated the date and time of the opening of price bid at their e-mail ids. Rest of the bidders will stand rejected.

3. BID SECURITY:

- a. An Account payee Demand Draft/Pay Order for Rs. 65000.00 drawn in favor of “Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN0000093, MICR Code: 700002048)” is to be furnished by the bidders except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department. Bid Security money or Earnest Money Deposit (EMD) may also be deposited in Bank Guarantee or any other acceptable form.
- b. The Demand Draft for the Bid-Security should have at least 90 (ninety) days validity period from the date of opening of the bids.
- c. In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

4. PERFORMANCE SECURITY:

- An Account Payee Demand Draft of 3% of the order value in the name of “Indian Association for the Cultivation of Science” is to be furnished by successful bidder as performance security. The amount may increase/decrease as per the government of India stipulation. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the Performance security money.

GENERAL INSTRUCTIONS:

1. Validity of tender: Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall be lapsed by mutual consent.
2. The tender should accompany a compliance chart.
3. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.
4. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally to visit the website (www.iacs.res.in/tender) for any amendment.
5. 90% payment after delivery and 10% after installation.
6. Value should be quoted on CIF, Kolkata basis.
7. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.
8. Service facility: In India, preferably Kolkata, supplier should mention their details of service setup and man powers who are responsible for after sales support. Response time should be within 24 hrs.
9. The model number, make and a printed literature of the product should be submitted positively.

10. Proposed delivery schedule should be mentioned clearly. Delivery of the instrument to the PI should be within 5 months from the date of purchase order.
11. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.
11. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.
12. Guarantee certificate, users' manuals etc. are to be handed over to the user after successful commissioning of the system.
13. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
14. In case of any dispute, the decision of IACS authority shall be final and bidding on the bidders.
15. For any clarification regarding technical specifications, information etc., please send your queries to sspdb@iacs.res.in
16. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.
17. The OEM should have a service center of its own in Kolkata for more than 5-10 Years.
18. The vendors must submit a buyers' list with the contact details where similar instrument have been supplied.

Registrar