Government eProcurement System

Government eProcurement System

Tender Details

Date: 28-Aug-2024 10:35 AM



Basic Details						
Organisation Chain	Council of Scientific and Industrial Research IHBT-Palampur - CSIR Purchase -IHBT - CSIR					
Tender Reference Number	4/5(36)24-Pur					
Tender ID	2024_CSIR_205550_1	Withdrawal Allowed	Yes			
Tender Type	Open Tender	Form of contract	EOI			
Tender Category	Goods	No. of Covers	1			
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No			
Payment Mode	Not Applicable	Is Multi Currency Allowed For BOQ	No			
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No			

Cover Details, No. Of Covers - 1						
Cover No Cover Document Type Description						
1	Fee/PreQual/Technical/Finance	.pdf	Expression of Interest (E.O.I.)for supply of Single- Crystal X-ray Diffractometer and its accessories			

Tender Fee Details, [Total Fee in ₹ * - 0.00]			EMD Fee Details				
Tender Fee in ₹ Fee Pavable To	0.00 Nil	Fee Pavable At	Nil	EMD Amount in ₹	0.00	EMD Exemption Allowed	No
Tender Fee	No	ree Payable At	INII	EMD Fee Type	fixed	EMD Percentage	NA
Exemption Allowed				EMD Payable To	Nil	EMD Payable At	Nil

Work /Item(s)	Work / Item(s)						
Title	Expression of In	pression of Interest (EOI)					
Work Description	Expression of In	pression of Interest (EOI) for supply of Single-crystal X-ray Diffractometer and its accessories					
Pre Qualification Details	Please refer tend	der document					
Independent External Monitor/Remarks	-						
Tender Value in ₹ NA Product Category Equipments (Hospital / Lab)			Sub category	NA			
Contract Type	Tender	Bid Validity(Days)	90	Period Of Work(Days)	90		
Location	CSIR-IHBT, Palampur (HP) India	Pincode	176061	Pre Bid Meeting Place	CSIR-IHBT, Palampur (HP) India		
Pre Bid Meeting Address	CSIR-IHBT, Palampur (HP) India	Pre Bid Meeting Date	10-Sep-2024 11:30 AM	Bid Opening Place	CSIR-IHBT, Palampur (HP) India through online mode		
Should Allow NDA Tender	No	Allow Preferential Bidder	No				

<u>Critical Dates</u>						
Publish Date	27-Aug-2024 06:00 PM	Bid Opening Date	24-Sep-2024 03:00 PM			
Document Download / Sale Start Date	27-Aug-2024 06:00 PM	Document Download / Sale End Date	23-Sep-2024 03:00 PM			
Clarification Start Date	27-Aug-2024 06:00 PM	Clarification End Date	09-Sep-2024 03:00 PM			
Bid Submission Start Date	12-Sep-2024 06:00 PM	Bid Submission End Date	23-Sep-2024 03:00 PM			

Tender Documents						
NIT Document	S.No	Document Name	Description	Document Size (in KB)		
	1	Tendernotice_1.pdf	NIT for Expression of Interest (E.O.I.) for supply of Sind Crystal X-ray Diffractometer and its accessories			

Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	EOIXRD1.pdf	Tender document for Expression of Interest (EOI) for supply of Single-crystal X-ray Diffractometer and its accessories	1294.80

Tender Inviting Authority				
Name	Stores and Purchase Officer			
Address CSIR-IHBT, Palampur (HP) India				



सी.एस.आई.आर - हिमालय जैवसंपदा प्रौद्योगिकी संस्थान

CSIR-INSTITUTE OF HIMALAYAN BIORESOURCE TECHNOLOGY

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्/ Council of Scientific & Industrial Research पोस्ट बॉक्स नं.06,पालमपुर-176061/ Post Box No.06,Palampur-176061 (हिमाचल प्रदेश/Himachal Pradesh), भारत/India

e-MAIL: spo@ihbt.res.in, Phone: 91-1894-230425



EXPRESSION OF INTEREST (E.O.I)

for

Supply of "Single-crystal X-ray Diffractometer and its Accessories"

EXPRESSION OF INTEREST (EOI)

CSIR-Institute of Himalayan Bioresource Technology (CSIR – IHBT) Palampur, HP, India isone of the premier laboratories under Council of Scientific and Industrial Research, an autonomous body under Department of Scientific and Industrial Research (Government of India), New Delhi.

Situated among pristine environ in the lap of Dhauladhar ranges, CSIR-IHBT is the only laboratory of the Council of Scientific and Industrial Research in the State of Himachal Pradesh (H.P.), India. Institute has a focused research mandate on bioresources for catalysizing bioeconomy in a sustainable manner.

The institute has: state-of the art laboratories; remote sensing and mapping facilities; internationally recognised herbarium; animal house facility; pilot plants in nutraceuticals, essential oil and herbals; farms and polyhouses. The young and dynamic team of scientists propel the research and work dedicatedly to discover and find solutions to new challenging problems faced by the society. International collaborations further strengthens scientific interactions at a global scale. Promoting industrial growth through technological interventionsis a constant endeavour and several technologies developed by the institute are transferredto industries. For socio- economic upliftment, regular training programmes and advisory services are rendered to farmers, floriculturists, tea planters and small entrepreneurs involved in food processing sector. Institute has been recognised as one of the Incubation Centres by MSME GoI and in the area of Affordable Health Care by DSIR. Institute encourages industries to share the technological problems faced them, such that efforts could be made in developing a viable solution. Confidentiality is strictly maintained.

Work on plant adaptation studies and high altitude medicinal plants are further strengthenedby the field lab "Centre for High Altitude Biology (CeHAB) situated at Ribling in Lahaul & Spitidistrict of H.P. Through this centre, institute disseminates technologies by way of trainingsand demonstrations that could transform the economy of the region and help in solvingunique challenges faced by them. Institute fosters student-scientist interaction and school children are welcome to visit theInstitute. Post graduate students can do project and sharpen their research skills at CSIR-IHBT. Young researchers are welcome for to do Ph.D in cutting edge areas under the ableguidance of expert faculty. Institute passionately contribute its bit in the development of society, industry andenvironment.

With the above back ground, An Expression of Interest (EoI) is initiated at CSIR- IHBT with the prospective manufacturers, their authorized channel partners or agents/suppliers and system integrators to discuss with the Technical Committees on the aspects of utility, technology, feature, literature, design, technical parameters, clientele and other related issues of the equipment and material for the following item to be procured for CSIR-IHBT

Sl.No.	File/Ref. No.	Item Description
01	4/5(36)24-Pur	Single-crystal X-ray Diffractometer

1. The address for submission of document and for obtaining further information:

Stores & Purchase Officer

CSIR - IHBT, Palampur -176061,

Himachal Pradesh (INDIA)

Tel. 91-01894-230425 / e-mail: spo@ihbt.res.in

2. The Bidding document can be downloaded free of cost directly from Central Public Procurement Portal (CPPP) of Government of India website http://etenders.gov.in/eprocure/app and CSIR-IHBT website www.ihbt.res.in

3. Schedule for submission: The prospective bidders should adhere to due dates specified in Tender Details corresponding to this Tender. The Schedule for Submission of proposals and Opening of proposals is as follows, through portal etenders.gov.in

Date & Time of Submission of proposals		Date and Time of Openingof proposals	
Date	Time (IST)	Date	Time (IST)
23rd September 2024	15:00 Hrs	24th September 2024	15.00 Hrs

- 4. PRESENTATION BY BIDDERS. Presentation by bidders is scheduled for 10.09.2024, from 11.30 A.M onwards. Venue is CSIR- IHBT Purchase Section meeting room/J.C Bose Conference Hall. Interested bidders are requested to send email to spo@ihbt.res.in confirming their willingness for making their presentation, on or before 09.09.2024, 3.00 p.m. Bidders will be allotted time slots to make presentations
 - a. on their products profile in brief
 - **b.** detailed specifications and
 - c. technical capabilities.
- 5. The bidders' representatives who will make the presentation should possess all the technical details of the machinery, its capacity, complete information on the company, previous experience, various technologies involved, service centres available in India / abroad and financial capabilities to execute project. The representatives should be capable enough to answer all queries of the Technical Sub Committee.
- **6.** The Technical Sub Committee (TSC) shall finalize specifications after knowing/obtaining details about relevant/available technology in the market suiting to the requirement and R&D needs of our Laboratory.

- **7.** For evaluating the responses, CSIR-IHBT may call for further presentations of their case in person or Presentation can be considered via Skype/Video Conferencing also.
- **8.** The Director, CSIR- Institute of Himalayan Bioresource Technology (CSIR IHBT) Palampur HP, India reserves the right to accept or reject any or all EOI Notification/tenders/offers or withdraw the Notice at any stage of processing without assigning any reason whatsoever, such an event would not cause obligation of any kind to CSIR- IHBT

Stores & Purchase Officer

1. INTRODUCTION

CSIR IHBT is planning to procure a Single Crystal XRD (Quantity: 1) suitable for structure elucidation and validation of compounds derived from natural plant products, synthesis processes and other R&D activities of the institute.

2. **OBJECTIVE**

The objective of this EOI is to receive complete technical proposals, detailed specifications of various machinery / process involved, study drawings, study plan lay outs, understand various technologies and processes involved, understand bidder capabilities to execute such supplies and then finalize specifications, list of machinery /items etc and also set eligibility criteria for bidders etc.

3. SCOPE OF SUPPLY

Details about specific R&D application needs and general requirements of the instrument are provided below. However, the exact detailed technical requirements and specifications will be finalized in discussion with the expert committee

Application Needs (representative): SCXRD system should be capable of performing

- 1) Accurate crystal structure determination of small organic/inorganic/organometallic compounds.
- 2) Absolute structure/configuration determination of organic compounds.
- 3) High-resolution charge density studies with sufficient data completeness.
- 4) SCXRD data collection under non-ambient conditions (80 to 400 K).
- 5) Studies small and/or weakly diffracting crystals.
- 6) Crystals with large unit cells (~50 Å).
- 7) Studies on complex multi-domain/modulated crystals.
- 8) It should have the facility to do Powder X-Ray Analysis.

Tentative basic requirements are given below:

1. Brief description

An advanced single crystal X-ray diffraction system with the Highest level of safety design for data collection and structural determination of molecules with all the software and peripherals required to fully integrate the system.

Sensitive, noise-free, fast, accurate, versatile, and reliable X-ray diffraction system with the following specifications. The system offered should be complete with all respect. The instrument should be compatible with Indian power supply (220-240V/ 50 Hz). Quoted SCXRD model should have a minimum 20 installations worldwide and minimum 5 installations in India.

2. X-ray Generator

Fully automatic computer-controlled system

- 1) Air/water cooled without external chiller.
- 2) Max. Voltage: ≤ 50 kV
- 3) Max. Current: 1 mA or better
- 4) Output stability: ±0.1% or better for ±10% fluctuation of main supply
- 5) The complete XRD system should be enclosed within a radiation enclosure to ensure the radiation dosage level below 1 micro Sv/hr at a distance of 10 cm from the instrument under full load conditions.
- 6) The system should confirm to Indian and International safety standards and regulations pertaining to X-Ray Radiation and other hazards as per AERB norm.
- 7) The system should have a floor-standing cabinet with fully safety interlocked doors for normal access at the front. This cabinet should have stringent safety requirements with respect to contamination of X-Rays and Radiation safety ensuring the negligible radiation outside the cabinet. The cabinet should have auto X-ray off upon accidental opening of cabinet doors during the run.
- 8) Flawless safety mechanism against over-voltage, over-power, over-current, overload, abnormal input mains voltage or temperature.

3. X-ray Tube

- 1) Sources: Cu and Mo (both)
- 2) Micro-focus X-ray Tube.
- 3) Max Power:≥50 W

4. X-ray optics

- 1) Multilayer optics and collimators of suitable size
- 2) Beam divergence: For Mo ≤ 5 mrad; For Cu ≤ 9 mrad (variable) or better
- 3) Target focus size ≤80 micrometer
- 4) Flux density: Mo ~1x10⁹; Cu ~1x10¹⁰ photons s/sq.mm or higher

5. Goniometer

- 1) Type: 4-circle or kappa goniometer
- 2) Detector distance range: 32-200 mm or better
- 3) Sphere of confusion: ≤ 7 micrometer
- 4) Equipped with sample illuminator, video image camera and external LCD monitor for crystal mounting

6. Detector

A state-of-the-art high-resolution hybrid photon counting pixel detector (HPC) or Charge-Integrating Pixel Array Detector (CPAD) for diffraction high pixel counts rate linearity for both Mo and Cu radiation, low dead time and low background noise.

- 1) Shutter less, air/water-cooled and maintenance free operation
- 2) Low noise, high dynamic range high count rate linearity
- 3) Point spread function (PSF): ≤ 1 pixel (FWHM) or better
- 4) Count rate per pixel: $\geq 1x10^6$ photons/s/pixel or better
- 5) High detective quantum efficiency: ≥95% (for Cu); ≥60% (for Mo) or better
- 6) Active area: 80 x 69 mm² or larger

7. Software

A WINDOWS -based user-friendly GUI software for instrumental control, data collection and analysis with the following features:

- 1) Data acquisition, integration, scaling, absorption correction, space group determination, auto as well as manual structure determination and final report generation for publication purpose.
- 2) Functionality for designing the data collection strategies for optimized image scans with desired exposure, redundancy, resolution and completeness.
- 3) Morphology/face indexing measurements of crystals.
- 4) Identification, indexing, and structure solution for complex (twin and modulated) crystals.
- 5) Functionality to allow the collection of powder diffraction data, analysis and plotting for the PXRD pattern generated from the measurements. Software for functional display and intelligent data processing of powder diffraction images and cylindrical Debye-Scherer view to analyze complete powder patterns from multiple frames.
- 6) The offered software must-have functionality for the structure determination functionality of both small and large molecules.
- 7) The data collection refinement and analysis software should be provided with unlimited site licence with free updates so that can be installed in any number of PCs

8. Polarizing microscope

A suitable latest generation Stereo Zoom microscope with the LED illumination and Polariser/Analyser for crystal selection should be quoted with the following specifications or higher:

- 1) Zoom range: minimum 7:1 (0.8X 5.6X) or better
- 2) Magnification range: minimum 8X to 56X or better
- 3) Working distance: 80-95 mm or better.
- 4) High-resolution digital camera (resolution 6MP or better) with USB interface
- 5) A compatible window 10 based (or latest at the time of supply) PC (intel i7, 1TB HDD) for image capture and recording.

9. Low Temperature Attachment or (Cooling Facility and Sample Temperature)

- 1) The diffractometer shall be equipped with a low-temperature device based on the use of liquid nitrogen (LN2), which must be capable of maintaining a stable sample temperature of 80 to 400 K, with an error not larger than ±1 K over the whole temperature range and should be complete with 60 Litre liquid Dewar and its peripherals.
- 2) Further, it should be possible to set the sample temperature (for fixed low-temperature experiments) through the instrument control software.
- 3) A liquid nitrogen storage Dewar for 150 liters capacity with auto refill accessory and necessary valves, regulators, transfer line and other accessories should be included. Dewar should be provided with a suitable trolley for easy movement.

10. System Video Microscope & Illumination

- 1) A good quality microscope with the highest possible magnification to view the crystal while mounting and centering in line with the X-ray beam i.e. alignment, monitoring, and face-absorption corrections.
- 2) Coupled with software for the required video capturing of color images of the crystal mounted on the goniometer platform.
- 3) Additionally, provision to transfer and store images should be provided.

11. Consumables-

- 1) Goniometer Heads: 3 No's with strong magnetic bases
- 2) Test crystals: 1 No.

- 3) Reusable Goniometer Bases 40 No's
- 4) Dual-Thickness Micro Mounts with 5 each of 10, 20, 30, 50, 75, 100, 150, and 200 μm apertures 80 No's
- 5) Magnetic Cryovials 20 No's
- 6) NVH Oil 1 liter 2 No's
- 7) Base holder and Protective Storage Case 2 No's
- 8) Heavy-duty tweezers 2 No's
- 9) Quartz Capillary Size 0.3mm 25 pack
- 10) Quartz Capillary Size 0.5mm 25 pack
- 11) Capillary Wax 40 G pack 1 No.
- 12) Tool kit 1no.

12. UPS

A branded ISO-9001 certified IGBT-based online UPS of 10 KVA capacity suitable to the quoted system with an in-built isolation transformer and SMF Batteries including all accessories for providing minimum of 30 minutes backup on full load.

13. Control computers

The system should be supplied with a desktop PC with factory-loaded software. The configuration of the PC should be equivalent or better to the following specs: Intel Core i7 CPU, 32 GB RAM, 2TB SSD, 27" LED monitor, and compatible latest licensed Windows operating system (64 bit).

14. Computer for structure solution and refinement

The configuration of the desktop PC should be equivalent or better to the following specs: latest Intel Core i7 (10th generation or higher) processor, 32 GB RAM (DDR4 2666), 512 GB SSD, 2 TB HDD (7200 rpm), 27" LED professional monitor, compatible latest licensed Windows operating system (64 bit)., graphic Card, CD-DVD read-write drives, USB ports, LAN connectivity, and wireless keyboard and mouse.

15. Manuals and Documentation

All operational manual, maintenance and calibration procedure documentations shall be provided in English language. In addition to the hard copies, soft copies of the manuals shall also be provided in CD/DVD/USB

16. Warranty

Minimum 5-year unconditional comprehensive on-site warranty on the complete system including accessories should be provided for the continuous operation of the machine.

Commitment is also sought for ensuring spare parts availability for at least 10 years after successful installation and or 10 years after discontinuation of the system/model. An undertaking in this regard should be submitted with the quotation.

One PM kit for complete system per year must be quoted for warranty period of 5 years.

17. After Sales Service

The supplier should provide a prompt after-sales service such as regular instrument maintenance, troubleshooting and fixing.

18. Installation and Commissioning

- 1) Installation and commissioning should be at CSIR-IHBT site. The expenditure involved in it will be borne by the supplier only suitable room will be provided.
- 2) Suitable tables 2 nos
- 3) Chairs 2 nos
- 4) Hot and Cold Split AC (1.5 Ton with 5-star rating) 2 Nos.
- 5) Necessary pre-installation advice should be enclosed along with the technical bid.

19. Application Training

On-site training (from operating the instrument to complete structure determination) after the successful installation should be provided. This training must be provided by an application scientist having expertise in X-ray crystallography and the training must be on basic and advance capabilities.

20.

The exact detailed technical requirements and specifications will be finalized in discussion with the expert committee

MANDATORY CRITERIA/ CLAUSE FOR SELECTION OF BIDDER

- Minimum, five order copies of executed SC-XRD system should be provided by the bidders from any Indian universities/research organizations/Govt. Institutes.
- The bid must be supported with order copies of end user name and contact details with date and supply
 vear.
- Bidders must quote the complete functional system.

4. Eligibility Criteria

Technical

1. Original Equipment Manufacturers (OEMs) / Authorized Agent who have proven expertise in successful supply and installation criteria of SC-XRD System. The bidder should have successfully supplied and installed at least one SC-XRD System of similar specifications, in the last 2 years as on the date of bid submission. Documentary evidence to this effect shall be attached to the EOI / Proposal.

Commercial

1. The bidder should not have been black listed / holiday listed by any other CSIR laboratory, or by any other R&D organization or by Government of India. A self-declaration letter in this regard must be enclosed.

2. Proposals

1. Technical

- a) Detailed specifications of various machinery / instruments involved supported by technical brochures / data sheets in English. The Bidder shall provide the complete technical information (without any IP related material) with specific OEM name, Model Number etc.
- b) Write up / detailed brochure / datasheets on the technologies / techniques involved.

- c) Electrical requirements voltage, frequency, single phase / three phases, totalpower consumption in kwh.
- d) Requirement of special foundation / flooring for each machine. If required, thenclear details.
- e) Plant lay out drawing in English. Dimensions must be in Metric (mm / cm / Metres).
- f) Other utilities required
- g) Air conditioning, UPS requirements if any.
- h) Stabilized power supply requirements (like servo stabilizer etc.).
- i) Backup power supply like diesel generator requirements
- j) Total space for plant requirements

2. Bidder Information

- a) Company information Status of bidder, registration certificate, and detailed write up about bidder history.
- b) Details of Personnel Details of all key technical, commercial and service personnel.
- c) Details of Production capacity, location of factory involved in production of machinery etc.
- d) Details of financial information about company in the last 3 years, like turnover, copies of audited balance sheet etc.
- e) Copy of solvency certificate from banker.
- f) Details of service setup in India.
- g) Self certified letter about holiday listing / black listing in bidder letter head.
- h) If dealer / authorized channel partner / distributor etc. Manufacturer authorization letter.
- i) Copies of Purchase orders / contracts of similar supply made in the last 2 years and the performance certificate from the respective clients.
- j) The Bidder shall indicate the timelines necessary for supply / installation / commissioning of the items under Scope of Work.

Similar Work Experience Details:

SI. No.	Name of the work with	Date & Ref. no of	Date of start Cost of work	Reference document (Work
	location	completion		Order/ Work
		certificate		Completion
		(If available)		Certificate) to be
		available)		attached, mention page no
				page 110

3. Other Terms

Purchase of EOI Document

The Expression of Interest document shall be downloaded from Central Public Procurement Portal (CPPP) of Government of India website http://etenders.gov.in/eprocure/app and CSIR-IHBT Website www.ihbt.res.in free of cost.

Clarifications on the EOI Document

Any clarification in the EOI document may be sent in writing to the following throughemail:

Stores & Purchasee-mail spo@ihbt.res.in

However, no extension of the time or date of EOI submitted will be provided on the ground that CSIR-IHBT has not responded to any query/clarification raised by any Bidder.

Amendment of Terms and Conditions of EOI

CSIR-IHBT may at its discretion or as a result of a query, suggestion or comment of an Bidder, may modify the EOI document by issuing an amendment or a corrigendum at any time before opening the EOI. Any such Addendum or Corrigendum will be uploaded on CPPP - Portal http://etenders.gov.in/eprocure/app and CSIR-IHBT's website and the same will bebinding on all the Bidders, as the case may be.

- CSIR-IHBT at its discretion may extend the due date of submission of EOI and the decision of CSIR-IHBT in this respect would be final and binding on the respondents. In the event of changes in the time schedule, CSIR-IHBT shall notify the same only through its CSIR-IHBT website www.ihbt.res.in. Interested Bidders are advised tocheck the above website regularly for corrigendum / addendum, if any, which will be published only in the web site.
- No oral modification or interpretation of any provisions of this EOI shall be valid. Written communication shall be issued by CSIR-IHBT when changes, clarifications or amendments to the EOI document are deemed necessary by CSIR-IHBT at its sole discretion.
- EOI submission should be in English language. EOI response should be free from correction, over writing, erasures etc. Duly authorized representative of the Applicant shall sign on each page of the EOI documents. EOI documents should be prepared in such a way so as to provide a straight forward, concise description of Applicant and capabilities to satisfy the requirements of this EOI.

- If at any time during the examination, evaluation and comparison of EOI, CSIR- IHBT at its discretion can ask the Bidder for the clarification of its EOI. The request for clarification and the response shall be in writing. However, no post submission of EOI, clarification at the initiative of the Bidder shall be entertained.
- Canvassing by respondents in any form, including unsolicited letters on EOI submitted or post corrections shall render their EOI response liable for summarily rejection.
- The cost or charges incurred in preparation and submission of EOI response shall not be entitled by any respondent.
- Conditional offers will be summarily rejected. EOI which is found to be incomplete in contentand / or attachments and / or authentication etc. is liable to be rejected.
- No Agent/Agents or third party/parties are engaged by CSIR-IHBT in this process.
- CSIR-IHBT is not responsible for any firm/agency expression or representing to express himself/herself/themselves to be the agent or third party representing CSIR-IHBT in this process.

It is advised to deal directly with CSIR-IHBT representative who is the signatory to this document. Disregard of any instruction may result in offer being ignored.

- EOI that are incomplete in any respect or those that nor consistent with the requirements as specified in this document may be considered non-responsive and may be liable for rejection and no further correspondence will be entertained with such Bidders.
- All cost and expenses associated with submission of EOI shall be borne by the Bidder while submitting the EOI. CSIR-IHBT shall have no liability, in any manner in this regard, or if it decides to terminate the process of short listing for any reason whatsoever.

NON-COMMITTAL EOI.

After short listing of bidders at this EOI stage, the second stage bidding may not be restricted to short listed bidders only and CSIR – IHBT may resort to Open / Global Tendering for further participation by potential bidders. This may please be noted by all concerned.