Tender No: IISc/CSB(IPC)/2025-26/002; Dated 18 November 2025

Global Tender Notification for the Procurement of an Electron Microscope.
(Last Date for Submission: 09 December 2025)

Indian Institute of Science Bengaluru (IISc) invites the best quotations from the bona fide, resourceful, and eligible manufacturers/exclusive distributors/vendors for the procurement of **an Electron Microscope (transmission mode)** and relevant accessories with the technical specifications mentioned in section 3, on C.I.P. Bengaluru basis (**by Air Freight only**). The procurement is on a **buy-back basis** for the existing TEM (*JEOL make, Model: JEOL2100F; Installed on: 14/12/2011; Field emission gun (Schotky) replaced on: 29/03/2021*) of the Chemical Sciences Division. The quotation should clearly specify the validity of the quote (minimum 90 days), terms of delivery, delivery schedule, estimated delivery date, buy-back price for the existing TEM, and payment terms.

The bidder must submit their tender in two separate sealed and distinctly marked envelopes: one containing the technical bid without mentioning any costs, and the other containing the commercial bid. Both envelopes should reach us duly signed on or before 17:00 hours on 09 December 2025.

The sealed envelopes containing the bids should mention "Quotation for spectrofluorometer" on the cover. **The sealed bids should be addressed to:**

The Dean
Chemical Sciences Division,
Indian Institute of Science, Bengaluru

and submitted to

The Office,
Department of Inorganic and Physical Chemistry,
A104, Chemical Sciences building,
Indian Institute of Science, Bengaluru – 560 012,
India.

For any inquiry, contact Anoop Thomas: athomas@iisc.ac.in; Ph.No: 080-2293 3351

Please enclose a technical compliance statement along with the technical bid. Bids without a compliance statement and a detailed compliance table may be disqualified.

Contents:

Section 1: Bid Schedule

1	Tender No:	IISc/CSB(IPC)/2025-26/002
2	Tender date	18 November 2025
3	Instrument	Electron Microscope (Transmission)
4	Tender type	Global Tender
5	Documents to be submitted	i) Technical bid (part A) ii) Commercial bid (part B)
5	Last date for receipt of any queries	24 November 2025
6	Querry clarification meeting	28 November 2025
7	Place of tender submission	The Office, Dept. of Inorganic and Physical Chemistry, A104, Chemical Sciences building, Indian Institute of Science, Bengaluru – 560 012, India.
8	Last date and time of tender submission	17:00 hours, 09 December 2025
9	For Further clarification	The Dean Chemical Sciences Division, Indian Institute of Science, Bengaluru – 560 012, India. Ph.No: 080-2293 2382

Section 2 – Eligibility Criteria

1. This is a global tender inquiry, and any bidder with registered head offices within or outside India is eligible to bid. However, the bidder's firm should have been in existence for a minimum of 3 years. (Enclose Company Registration Certificate).
2. Only the Original Equipment Manufacturer or their authorized representatives **across the globe** shall participate in the bid.
3. The order will be placed only on the bidder who participated in the bid.
4. A complete bid with the following must be submitted:

   a) Technical bid with a technical compliance sheet, supporting documentation and **masked** commercial bid (a copy of the commercial bid, but '**without**' any pricing information) in one sealed envelope. The envelope should be **'marked' as 'Technical Bid'**.

   b) Commercial bid, including **buy-back price** for the existing TEM, final CIP pricing, warranty information, and other commercial terms and conditions, in another sealed envelope. The envelope should be **'marked' as 'Commercial Bid'**.

c) The envelopes with technical and commercial bids should be placed in a single sealed envelope.

d) All envelopes must be addressed to the tenderee as per information in Point 6 of the Bid Schedule. The tender number and date must be inscribed on all the envelopes.

5. The bidder should sign and submit the declaration of Acceptance of Terms and Conditions as per -Annexure 4.
6. The bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect must be given as per **Annexure 3**.
7. Any bids that are deemed incomplete can be summarily rejected without further consideration.

Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentation submitted with the tender must be in English.
2. The tender should be submitted in two envelopes (two-bid system).

   a) Technical Bid (Part-A) – Technical bid consisting of all technical details and checklist for conformance to technical specifications (Section 5). The technical bid should include a technical compliance table, as outlined in Section 4 of this document.

   b) Commercial Bid (Part-B) – Indicating item-wise price for the items mentioned in the technical bid, and **the buy-back price** for the existing TEM, **as per the format of quotation provided in Annexure 5**, and other commercial terms and conditions.

3. The technical and price bids should be placed in separate sealed envelopes, superscripting the tender number and the due date on both. Both of these sealed covers are to be placed in a larger envelope, which should also be sealed and duly superscripted with the Tender No., Tender Description & Due Date.
4. The SEALED COVER superscripting tender number, tender description, and due date, and the contact address, contact phone, and email of the bidder should reach **The Office, Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore – 560 012**, India on or before the due date mentioned in the tender notice. Write **"Quotation for Electron Microscope – Chemical Sciences Division" clearly on top of the envelope.** If the due date is a holiday, the tender will be accepted on the next working day. If the quotation cover is not sealed, it will be rejected.
5. All queries are to be addressed to the person identified in "Section 1 – Bid Schedule" of the tender notice.

6. GST/other taxes, levies etc., are to be indicated separately. The bidder must mention their GST Registration and PAN in the tender document (for Indian bidders only).
7. The Institute reserves the right to accept or reject any bid, to annul the bidding process, and reject all bids at any time before the award of the contract without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
8. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights to:

a) Accept OR reject the lowest tender, any other tender, or all the tenders.

b) Accept any tender in full or in part.

c) Reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer:

The offer must be valid for at least 90 Days from the closing date of this tender.

D) Evaluation of Offer:

1. Bids deemed complete, as per the information provided in Section 2 of this document, will be considered for technical evaluation. Technical bids (Part A) from such eligible bidders will be opened and evaluated. Bidders not furnishing the documentary evidence required in Section 2 will not be considered.
2. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision regarding acceptance and/or rejection of any offer in part or full shall be at the sole discretion of IISc Bangalore, and the decision in this regard shall be binding on the bidders.
3. The award of the contract will be subject to acceptance of the terms and conditions stated in this tender (Annexure 4).
4. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:

   a) Non-submission of complete offers.

   b) Receipt of bids after the due date and time and/or by email/fax (unless specified otherwise).

   c) Receipt of bids in open conditions.

5. If any bidder is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the bidder had accepted the clauses as of the tender, and no further claim will be entertained.
6. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
7. The lowest bid will be calculated based on the total price of all items tendered for basic equipment, along with accessories selected for installation, operation, preprocessing, and post-processing. Any optional items, recommended spares, additional warranty, annual maintenance contract, and any such items will be considered only if they are being purchased as part of this tender.

E) Pre-requisites for Installation:

The bidder must provide the pre-requisite installation requirement of the equipment along with the technical bid.

F) Warranty:

1. The complete system is to be under a comprehensive warranty for a minimum period of 2 years.
2. During the warranty period, any complaint must be addressed within 2 working days after a service request is raised.
3. After such a service call, if the instrument is found to be defective, it must be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore.
4. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

G) Annual Maintenance Contract:

1. The cost of an annual maintenance contract for at least 3 years after the warranty period is to be quoted.
2. The cost of annual maintenance must be locked in for the period of 3 years post the warranty period.
3. AMC must cover service breakdowns + at least one maintenance visit per year.
4. AMC cost (if ordered, after the completion of the warranty period) will be released on a yearly basis at the end of each year, subject to satisfactory services.
5. The quote must include pricing for both comprehensive and non-comprehensive AMC.
6. Expected consumables for the maintenance of this system and their price, preferably with a lock-in at least during the warranty period, must be provided as an optional item in the quotation.

H) Delivery, Installation, and Training:

1. The bidder shall provide the lead time for delivery, installation, and commissioning at IISc Bengaluru from the date of receipt of the purchase order. The system should be delivered, installed, and commissioned within 90 days from the date of receipt of the purchase order.
2. The supply of the items will be considered as effective only on satisfactory installation and inspection of the system, inspection of all the items and features/capabilities, and testing by IISc, Bengaluru. After successful commissioning and inspection, the date of taking over of entire system by the IISc, Bengaluru, shall be taken as the start of the warranty period. No partial shipment is allowed.
3. The bidder should also arrange for technical training of local facility technologists and users during installation, followed by four follow-up training sessions within the same year. Additionally, two training visits per year must be included during the warranty and AMC periods, if and when the AMC (as detailed in Section G) is purchased.

I) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in the tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc Bangalore reserves the right to cancel or amend the contract.

J) Payment Terms:

1. Payment terms must be clearly included in the commercial bid.
2. The AMC cost (if ordered) will be released on a yearly basis at the end of each year, starting from the end of the warranty period, subject to satisfactory service.
3. The price basis must be **CIP Bangalore (by Air Freight only)** basis.
4. According to GFR, no advance payment can be made to domestic vendors unless a bank guarantee equal to the amount is provided.

K) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore, subject to the claim being supported by documentary evidence. However, if any decrease takes place, the advantage will have to be passed onto IISc, Bangalore.

L) Disputes and Jurisdiction:

Any legal disputes pertaining to this tender or any breach of contract shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

M) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may provide any additional information necessary to establish their capabilities to successfully complete the envisaged work. It is, however, advised not to furnish superfluous details.
3. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.
4. Power requirement: Indian standard power supply, 220/240 Volts AC with frequency 50 Hz.
5. An operation and service manual in English (both electronic and hard copy) with complete circuit diagrams and PCB layouts for all equipment should be provided with the instrument.
6. Standard samples (if required) to be provided by the company for testing the instruments at the time of installation on-site to the quoted accuracy in the given technical specification for the demonstration of the performance of the equipment.
7. The vendor should have a track record of having previously supplied at least five identical instruments to CFTIs, such as JNCASR, IITs, IISERs, and NITs, with specifications matching those mentioned in the current tender. Details of such systems should be provided. The vendor must provide the user list (with contact details, including email addresses and phone numbers) of at least 5 customers from Indian Institutes/Labs, including the contact person's name, address, phone number, fax number, and email IDs. The primary focus of these installed systems should have included reliable data in the form of pictorial graphs must be provided.
8. The committee reserves the right to reject the technical bid if the above condition is not satisfied.
9. The vendor should have qualified technical service personnel for the equipment based in India and should assure a response time of <48 hours.
10. Wherever requested data must be supplied along with technical compliance documents, technical bids without supporting data will be deemed technically non-compliant.
11. All guaranteed specifications may have to be demonstrated at the time of installation. The service engineers should bring any necessary standard samples for that purpose.

Section 4 - Technical Specifications for the Electron Microscope (Transmission)

Broad System Requirements and Usage:

An electron microscope (transmission) to image and characterize material samples from the Chemical Sciences Division at the Indian Institute of Science, Bengaluru. The following technical criteria are to be met by any *Electron microscope (transmission)* with accessories that are being quoted under this tender notice:

1. The Primary samples from the Chemical Sciences Division include metal oxides, chalogenides, halides, semiconductors, metallic nanoparticles, carbon nanostructures, polymers, MOFs, COFs, 2D Materials, soft organic materials, and thin films.
2. Access to the quoted instrument should be multi-user friendly with an easy-to-use software interface and modular hardware design that allows rapid user training. It should also be easy to change from one operational mode to another with relative ease so that our researchers and students can set up experiments and handle the instrument.
3. In addition, the quoted system should have a modular design, providing the flexibility to support upgradation for the possibility of integrating future updates either at the time of procurement or at a later date.

Table of Technical Specifications (*Columns 3-5 are to be filled in and submitted for verifying technical compliance.)*

Sl. No.	Technical Specifications	Technical Complian-ce (Yes/No)	Provide detailed specificati on (*Include technical data sheets to support claims*)	Deviati on, if any/ Remark s/ Details
1	**Instrument**			
	The microscope should be able to operate remotely, including apertures, and feature a projection camera for performing remote imaging, thereby minimizing interference from the operator and maximizing operator efficiency. The same user interface for TEM, STEM, EDX, and camera control is preferred. The instrument configuration as given *must be* retrofittable to a probe corrector on-site.			

2	**Operating Voltage**			
	a) 20 kV to 200 kV (with prefix values & user changeable) to any intermittent value in the range.			
	b) The microscope should be aligned at 200 and 80 kV accelerating voltages.			
	c) Switching between different accelerating voltages should be computer-controlled.			
3	**Electron source**			
	a) **Cold-FEG** with brightness ≥8×10^{8}A/cm^{2}sr or higher @ 200 keV			
	b) Minimum 5 years warranty for the electron source (field emitter). If any problem occurs within 5 years of installation, the source must be replaced free of cost. This should be applicable to all subsequent electron sources.			
	c) **Probe current:** 2.5 nA at 1 nm probe size or better (higher current at lower probe size preferred) for 200 kV beam. d) The probe current must be stable at all magnifications (STEM & TEM). The vendor must provide technical notes to endorse the beam stability.			
	e) Energy spread 0.3 eV or less. Beam current should be tailorable for different purposes: pA (beam-sensitive imaging) to nA (EDS mapping)			
4	**Operating modes**			
	a) Conventional TEM with bright and dark field imaging			
	b) Selected area electron diffraction (SAED), micro and nano diffraction, convergent beam electron diffraction (CBED)			
	c) Scanning transmission electron microscopy (STEM) mode with annular bright field (ABF), annular dark field (ADF), and high-angle annular dark field imaging (HAADF) with simultaneous imaging in all modes.			
	d) Differential Phase Contrast (DPC) STEM to simultaneously identify light and heavy atoms. It should be possible to adjust the focus by looking at the field of view.			

	e) Energy dispersive spectroscopy in TEM and STEM mode with point analysis, line analysis, and area mapping of chemical elements at different magnifications in STEM Mode with a drift corrector.			
	f) Lorentz Mode or equivalent arrangement/techniques to perform magnetic domain imaging.			
	g) The supplier must mention the range of electron beam spot sizes for each mode.			
5	**Imaging / Resolution**			
	At 200 keV a) Information limit ≤ 0.11 nm or better b) Point resolution ≤ 0.25 nm or better c) TEM Line resolution ≤ 0.1 nm or better d) STEM resolution ≤ 0.16 nm or better (STEM mode to operate without aberrations at least up to a semiconvergence angle of 4 mrad)			
	At 80 keV a) Point resolution ≤ 0.37 nm or better b) TEM Line resolution ≤ 0.15 nm or better c) STEM resolution ≤ 0.31 nm or better (STEM mode to operate without aberrations at least up to a semiconvergence angle of 4 mrad)			
6	**Lens System**			
	a) The quoted system should consist of a condenser lens, objective lenses, diffraction, intermediate, and projection lenses to give better image quality with minimal distortion.			
	b) The quoted system should contain a Lorentz lens assembly in proper geometry and be placed for analyzing and imaging magnetic domains in the samples (For the Lorentz lens, give the maximum permissible field and resolution). c) If a Lorentz lens is absent, the system must have an alternate arrangement/ technique to perform magnetic domain imaging. Details must be furnished.			
	d) All apertures should be motorized and remotely controllable, including those for alignments.			
	e) Automated daily system alignments for gun and columns should be a part of the system to			

	increase high throughput.			
	f) There should be a provision for correcting astigmatism for the condenser, objective lens, and intermediate lens.			
	g) The value of chromatic aberration and spherical aberration coefficients must be ≤ 1.6 mm and ≤1.5 mm, respectively.			
	h) A list of various apertures provided with the system shall be mentioned along with their sizes.			
7	**Magnification**			
	a) TEM Magnification: Up to 1 Mx or higher			
	b) STEM Magnification: Up to 150 Mx or higher			
8	**Specimen Chamber /Stage**			
	a) Fully automatic/computer-controlled driven 5-axis motorized eucentric goniometer			
	b) Both Pico and Piezo stage goniometers are required. Piezo Stage drift ≤ 0.5 nm/min. Pico Stage drift ≤ 0.5 nm/min.			
	c) Specimen tilt angle with a standard double tilt holder should be (α/β) (± 35°/30°) or higher.			
	d) Specimen tilt angle with a tomography holder should be ± 80° or higher.			
	e) Movement: X movement range – 2 mm in total or more Y movement range – 2 mm in total or more Z movement range – ± 0.2 mm or more			
	f) The specimen slot size should be standard 3.05 mm and suitable for in-situ measurements.			
	g) Automated or semi-automated sample holder operation is preferred.			
9	**Vacuum System**			
	a) The electron gun part vacuum should be operated in the ultra-high vacuum range (<10^{-8} Pa).			
	b) Vacuum pumps and valves should be software-driven. Two turbo-molecular pumping stations are			

	required: one for the sample chamber and one for the column vacuum.			
	c) A clean, dry pumping system suitable for FEG and EDS is to be offered.			
10	**STEM detector**			
	a) Four or more segmented STEM detector should have Bright Field, Dark Field, high-angle annular dark field (HAADF), Differential Phase Contrast (DPC), and live Differential Phase Contrast (DPC) imaging capabilities to identify both light and heavy atoms simultaneously.			
	b) The STEM detector should be quoted with the highest possible segmentation, with the capability to read from each segment individually and simultaneously.			
	c) Four parallel imaging channels should be available to acquire four or more images simultaneously from different STEM detectors, with a magnification of 150x or more.			
	d) Drift correction via frame integration should be possible.			
	e) All the software and hardware must be supplied to perform STEM-Bright Field, STEM-Dark Field, STEM-HAADF, and STEM-DPC.			
	f) The supplier must mention the collection angle range of the STEM detector.			
	g) The supplier must mention the divergence angle range covered by the HAADF detector.			
	h) The supplier must mention all possible recordable image sizes of STEM-BF, STEM-DF, and STEM-HAADF in pixels.			
	i) The supplier must provide detailed specifications for the camera/detectors.			
11	**Image recording mechanism**			
	a) A bottom-mounted, retractable, high-resolution camera with 4D-STEM capability is to be included.			
	b) High-resolution CMOS camera with a minimum 16 MP or better with video recording capability.			
	c) The CMOS sensor should be optimized for sensitivity, speed, and resolution. In-line data			

	processing and real-time drift correction should be possible.			
	d) The camera's CMOS sensor should record 4K*4K images and video data at 50 frames per second or better (pixel size of 14 μm^2 or higher is desired).			
	e) When combining binning with sub-area readout, it should be possible to acquire data up to 1,500 fps at 256 x 256 resolution to record fast in-situ reactions or analyze large areas quickly with 4D STEM.			
	f) The same user interface for both TEM software and camera software must be provided.			
	g) Must be compatible with in situ measurements			
	h) The supplier must provide detailed specifications for the camera/detectors.			
	i) Include the camera technical specification sheet.			
	j) Necessary Software for 4D-STEM imaging and necessary servers for storing data must be included. [Refer to section 32 for server system specifications]			
12	**EDS System for HRTEM and HR-STRM**			
	Detector a) Two or a combination of multiple detectors (Si drift detector/ Silicon nitride detector or latest) with a maximum total active area of 100 mm^2 or higher. b) Resolution 130 eV or better at Mn K-α resolution. c) Capability to detect elements at least with atomic number $\geq$ 5 (i.e. from Boron onwards) d) EDS should be compatible with both conventional TEM and STEM analysis. e) EDX detector solid angle for collection should be 0.9 Sr or higher. f) The EDS should be capable of single-point analysis, multi-point analysis, selective element mapping, line scan, selected area analysis, and qualitative and quantitative analysis (with Thin Film Approximation (ratio) correction). g) EDS detectors should be windowless & design should have shutter protection or be retractable from the TEM column when not in use.			

	h) Peltier cooling mechanism for the detector. i) The ratio of total counts from the EDS scan of a standard sample to the probe current must be given. The details of the sample and EDS experimental conditions must be given.			
13	**Software/OS**			
	a) A single user interface software package for TEM control, camera data acquisition, STEM imaging, column alignments, and EDS analysis is preferred.			
	b) The software module consists of fully automated software for aligning and fine-tuning the optics, daily column alignments & tunings.			
	c) Software should be capable of image and diffraction data processing, EDS analysis-electron-based imaging, and selected area electron diffraction analysis.			
	d) The system should run on the latest possible operating system, Microsoft Windows.			
	e) All the software provided should carry latest version numbers. Future upgrades of the software, so long as new hardware is not needed, should be supplied free of cost.			
	f) The microscope should be able to operate remotely, including with apertures, and perform remote imaging.			
	g) Future upgrades of any of the software and user interface, so long as new hardware is not needed, should be supplied free of cost.			
14	**Sample holders and accessories**			
	a) Low background Single-tilt Holder - 2 numbers (must be suitable for EDS).			
	b) Low background Double-tilt Holder - 2 number (must be suitable for EDX)			
	c) Tomography holder - 1 number			
	d) Preferably, binoculars should be attached to see images on a small fluorescent screen.			
	e) Include a Projection camera to allow full remote operation except for sample loading.			

	f) A beam stopper (to stop the direct beam of a diffraction pattern) must be provided.			
	g) High-quality precision tweezers (thickness 0.06 mm) for handling TEM samples (Self closing tweezer – 02 numbers, 45^{o} bent tip – 02 numbers, high precision straight – 02 numbers)			
	h) All the necessary tool kits required during maintenance and servicing. i) If any accessories, other than these, will be supplied as standard accessories (free of cost), then mention clearly. List of supplied accessories should be furnished.			
	j) Sample pre-preperation chamber capable of holding all type of holders, plasma cleaner, stero microscope to precheck the holder and sample			
15	**Standard samples**			
	a) One Cross grating sample from Agar Scientific must be supplied (For Magnification calibration) b) One polycrystalline Al or Au sample from Agar Scientific or equivalent must be supplied (For diffraction calibration) c) One Mag-I-Cal sample from Agar Scientific must be supplied (For STEM and HRTEM resolution calibration. **d)** One Single and multi-element standards for EDS must be supplied (For EDS calibration)			
16	**Consumables**			
	a) Standard pure carbon-coated copper grids (200 mesh size)-500 numbers from a reputed company b) Standard pure carbon-coated Nickel grids (200 mesh size)-200 numbers from a reputed company c) Necessary consumables for pumps, air compressors, water chillers and other subsystems must be supplied for one year.			
17	**Computer hardware for microscope PC**			
	a) Latest, Branded (HP/IBM/DELL) PC with latest hardware and software configuration with latest possible OS and Branded 32" (or higher) monitor.			
	b) All control, data acquisition, analysis and diagnostics software loaded and tested on the			

	computer.			
	c) One extra Data sharing and analysis PC (desktop/all-in-one) must be supplied with following specifications: ≥ 32" monitor, Win 11 OS, ≥32 GB RAM, ≥6 TB HDD, 13th gen core i7 or better processor.			
18	**Licence & analysis workstation**			
	a) The TEM should be equipped with the latest software platform for the operation of the microscope.			
	b) General image acquisition and analysis software for capturing images of samples should be provided.			
	c) The acquired data can be exported from the proposed TEM system in multiple formats.			
	d) 10 numbers of Offline data processing software with requisite license (for IISc users only) should be provided as mentioned above.			
19	**Water Chiller**			
	a) The supplier must provide a suitable water chiller for the system b) The chiller should work comfortably in the environmental conditions at the installation site, IISc, Bengaluru. c) The supplier must mention the specifications of the unit.			
20	**Air Compressor**			
	a) The supplier must provide a suitable air compressor for the system b) The air compressor must be oil-free with minimal noise. c) The supplier must mention the specifications of the unit.			
21	**Power**			
	IISc will provide a stable electrical power supply as per Indian standards, in single-phase 220 V and 3-phase 440 V, at 50 Hz. The vendor should accordingly design the power requirements of all units.			

22	**Pre-installation**			
	In the event of receiving the purchase order, pre-installation requirements such as room size, gases required, Air conditioning, tolerable limits of electromagnetic field and vibration (mechanical), rating of power needed, and utility requirements are to be stated clearly, and to be verified/surveyed by the supplier at the installation site well in advance of system delivery.			
23	**Installation, commissioning & demonstration**			
	Installation, complete interfacing of the system with its subsystems, and commissioning is to be carried out by the vendor's factory-trained engineers, followed by a demonstration of the system's performance fully to the user's satisfaction.			
24	**Training**			
	Comprehensive training by experienced and qualified engineers and application scientist on the operation of all the modes, basic maintenance of the system (for both the hardware and software) and troubleshooting must be provided on-site for a period of 6 days in two sessions at free of cost, at the time of installation. In addition, 4 additional training sessions over the first year are to be organized by the winning bidder or their representatives.			
25	**Comprehensive Warranty**			
	Two-year comprehensive warranty from the date of successful Installation, commissioning, and Demonstration on the complete system, including all its subsystems and attachments.			
26	**Compatibility**			
	Specify native options and third-party compatibility for the camera, detectors, and EDS			
27	**Others**			
	a) Provide hard & soft copies of Operational and technical manuals (circuit, service, etc.) wherever required.			
	b) A written certificate must be provided by the principal vendor, guaranteeing at least 10 years of service, support, and availability of spare parts for TEM hardware, including all attached accessories and subsystems, from the date of installation & commissioning or from the			

	discontinuation of the system, whichever comes later.			
	c) A compliance statement for each item of this document is to be provided along with the technical bid.			
	d) The supplier must mention the specs clearly wherever deemed. Detailed specifications/technical notes in support of specs against each point, wherever deemed, must be furnished.			
	e) A list of users (with contact details) in India with similar system specifications must be furnished. f) The order copy and the installation report of the latest one should be submitted.			
28	A TEM specimen holder with an oil-free dry vacuum pumping station should be included, with a minimum of four holders with an individual closing valve control system.			
29	Plasma cleaner for TEM sample preparation, with oil-free vacuum system with three plasma gas inputs.			
30	A stereo microscope with a camera for initial sample visualization, and to remove dirt on the sample holder			
31	One High precision vacuum tweezers should be provided for sample handling and loading.			
32	**Data Server System Specifications**			
	a) Base Unit: Power Edge T550 tower server (210-BBRX, 321-BHZS, 325-BEGT, 325-BEGZ, 330-BBWV, 379-BDST, 379-BDTF, 384-BBBL, 384-BCYQ, 461-AAIG, 800-BBDM)			
	b) Processor: Intel Xeon Gold 6326, 16 core, 2.90 GHz, 3.50 GHz Turbo, 24 MB L3, 11.2 GT/s, 185 W (338-CBXJ, 379-BDCO, 412-AAYL)			
	c) Memory 256 GB total; (8) 32 GB RDIMM, 3200 MT/s, dual rank (370-AAIP, 370-AEVR, 370-AGDS)			
	d) Video Card			

	Nvidia T1000, 8 GB GDDR6, 896 CUDA cores, PCIe v3 x16, 50 W max power consumption, (4) mDP v1.4 connectors (PNY VCNT10008GB-PB)			
	e) Monitor: Dell 32" Widescreen flat panel display, P3223QE, 3840x2160, HDMI/DP & USB-C hub connections, 2m DP-DP cable, 3 years Advanced Exchange Service (210-BDQC, 844-1960, 844-1966), also includes USB-A (f) to USB-B (f) adapter			
	f) Hard Drives: (1) 960 GB SATA SSD, 1 DWPD (400-AXSE) (2) 3.2 TB, NVMe SSD, mixed use (400-BKGD) HD RAID: RAID 6 (from the 2 x 3.2 TB NVMe SSD's), (1) 5.82 TB logical drive for Capture Data HD Controller: (1) PERC H755N Front, NVMe, 8 GB DDR4 2666 MT/s non-volatile cache, PCIe v4 x8 (405-AAZE) (1) HBA355i Front, SAS/SATA (405-AAXY)			
	g) HD RAID: (1) DVD+/-RW, SATA (429-ABLS)			
	h) HD Controller: (2) 1400 W Hot Plug, redundant 1+1 (450-AALV, 450-AKYP)			
	I) Operating System Windows Server 2022 Standard Edition, 64-Bit, English (528-CSCP, 634-BYJV, 634-BYJY) see Note 2			
	j) Network Adapters: (1) Broadcom 57416 Dual Port, 10 GbE, BASE-T, OCP NIC 3.0 (540-BCOD) (2) Broadcom 5720 On-Board LOM, 1 GbE (329-BGKJ)			
	K) **Keyboard and Mouse:** Razer Cynosa V2 keyboard, backlit, wired USB (RZ03-03400) Logitech Corded Mouse M500, wired USB (910-001204)			
	m) Expansion Slots:			

	G1 PCIe x16, Gen 4, FH-FL-DW, CPU 1 G2 PCIe x16, Gen 4, FH-FL-DW, CPU 2 3 PCIe x16, Gen 4, FH-HL-SW, CPU 2 (occupied by Video card) 4 PCIe x16, Gen 4, FH-HL-SW, CPU 2 5 PCIe x4, Gen 4, FH-HL-SW, PCH 6 PCIe x16, Gen 4, FH-HL-SW, CPU 1			
	n) Tower I/O Ports: Front: (1) USB 3.0, (1) USB 2.0, (1) iDRAC Direct (Micro-AB USB) Rear: (1) USB 3.0, (1) USB 2.0, (1) VGA, (2) NIC, (1) iDRAC9			
	o) **Service:** 3 Year ProSupport and NBD On-site Service (709-BBFL, 865-BBMY)			
	p) **Documentation:** No System Documentation & No OpenManage DVD kit (631-AACK)			
	p) Embedded Systems Management: iDRAC9 Enterprise 15G (350-BCKT, 379-BCQY, 379-BCQX, 379-BCSF, 385-BBQV)			
Optional Accessories to be quoted				
33	**Sample holders for *in-situ* measurements**			
	a) Electrochemistry b) Heating/cooling sample holder			
34	**Upgrade option to EELS to be quoted.**			
35	**Additional comprehensive warranty**			
	a) A separate quote may be provided for additional CMC coverage for 1 year after the standard comprehensive warranty expires. b) Clearly mention the parts, visit details, and others covered under this.			
36	**Additional AMC**			
	a) A separate quote may be furnished for additional AMC for 2 years after the period of the comprehensive warranty. b) Please clearly specify the parts, visit details, and other items covered under the AMC.			
37	Please specify native options and third-party compatibility for the camera, detectors, and EDS			

Section 5- Technical Bid

The technical bid should furnish all requirements of the tender, and details on fulfillment of the technical specifications mentioned in Section 4, along with all annexures in this section, and be submitted to:

The Dean
Chemical Sciences Division,
Indian Institute of Science, Bengaluru
Bengaluru – 560 012
India.

Annexure 1:

Details of the Bidder:

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Sl. No.	Type	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
3.	Registration No/ Trade License (attach attested copy)	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name andDesignation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name: Date:

Designation, Seal

Annexure 2:

Declaration Regarding Experience

To,
The Dean
Chemical Sciences Division,
Indian Institute of Science, Bengaluru
Bengaluru – 560 012
India

Ref: Tender No: IISc/CSB(IPC)/2025-26/002;
Dated: 18 November 2025

Sub: Supply and Installation of Electron Microscope (Transmission mode)

Sir,

I have carefully gone through the Terms & Conditions contained in Section 3 of the above referred tender. I hereby declare that my company/firm has years of experience in supplying and installing spectrofluorometers and accessories.

(Signature of the Bidder)

Printed Name Designation, Seal Date:

Annexure 3:

Declaration of track record

To,
The Dean
Chemical Sciences Division,
Indian Institute of Science, Bengaluru
Bengaluru – 560 012
India

Ref: Tender No: IISc/CSB(IPC)/2025-26/002;
Dated: 18 November 2025

Sub: Supply and Installation of Electron Microscope (Transmission mode).

Sir,

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm is not currently debarred / blacklisted by any Government / Semi-Government organizations / institutions in India or abroad. I further certify that I am competent officer in my company / firm to make this declaration.

OR

I declare the following:

Sl. No.	Country in which the company is debarred/ blacklisted / having pending case	Blacklisted / debarred by Government / Semi Government Organizationsor Institutions / having pending case	Reason	Time Period

(Note: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

(Signature of the Bidder)

Printed Name Designation, Seal Date:

Annexure 4:

Declaration of acceptance of terms and conditions

To,
The Dean
Chemical Sciences Division,
Indian Institute of Science, Bengaluru
Bengaluru – 560 012
India

Ref: Tender No: IISc/CSB(IPC)/2025-26/002;
Dated: 18 November 2025

Sub: Supply and Installation of Electron Microscope (Transmission mode).

I have carefully gone through the Terms & Conditions contained in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully
(Signature of the
Bidder)

Printed Name Designation, Seal Date:

Annexure 5

Details of Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned. The sealed commercial bids should be addressed and sent to:

The Dean
Chemical Sciences Division,
Indian Institute of Science, Bengaluru
Bengaluru – 560 012
India

Sl. No	Description	Cat. Number	Quantity	Unit Price	Sub Total
1.	Essential items noted in the technical specification				
1.a	(details of essential items)				
1.b	**The buy-back price**				
2.	Optional items noted in the technical specification				
2.a	(details of optional items)				
2.b					
3.	Accessories for Operation and Installation				
4.	All consumables, spares, and software to be supplied locally				
5.	Warranty (2 years)				
6.	AMC 3 years beyond warranty				
8.	CIP/CIF IISc, Bengaluru				

List of any additional items, such as Spares and Hardware/PCBs, likely to go obsolete after the next 3 Years

Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned and should mention the buy back price.

Addressed to

The Dean
Chemical Sciences Division,
Indian Institute of Science, Bengaluru
Bengaluru – 560 012
India.

Section 7 – Checklist

(This should be enclosed with a technical bid- Part A)
The following items must be checked before the Bid is submitted:

I. Sealed Envelope "A": Technical Bid

1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:
   a. Annexure 1: Bidders details
   b. Annexure 2: Declaration regarding experience
   c. Annexure 3: Declaration regarding clean track record
   d. Annexure 4: Declaration for acceptance of terms and conditions
   e. Annexure 5: Details of items quoted

2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

II. Sealed Envelope "B": Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: **Technical Bid (Envelope A)** and **Commercial Bid (Envelope B)**, superscribing on both the envelopes with, Tender description, Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly superscribed with Tender No., Tender description & Due Date.