

Global Tender Notification for the Procurement of Gas Chromatography System

This is the request for quotation from global original equipment manufacturers (OEMs) or their authorized distributors across the globe for the procurement of a Gas Chromatography (GC) system at the Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science (IISc), Bangalore.

Tender Summary:

1	Section-1	Bid Schedule	
2	Section-2	Eligibility Criteria	As specified by IISc
3	Section-3	Terms and conditions	As specified by IISc
4	Section-4	Specifications	Technical Specifications
5	Section-5	Technical bid	Quotation with details of the items quoted without price mentioned but including the technical specifications compliance table along with following annexures. Annexure 1: Bidder details Annexure 2: Declaration regarding experience of the bidder Annexure 3: Declaration regarding clean track record of the bidder Annexure 4: Declaration of acceptance of tender Annexure 5: Terms and conditions.
6	Section-6	Commercial bid	Quotation with details of the items quoted along with the itemised price

Statutory Condition: The Committee can cancel the tender at any time.

Section 1: Bid Schedule

1	Tender Number	SSCU/IISc/SMB/2025/GC
2	Tender Date	24th January 2025
3	Item Description	Gas Chromatography system
4	Tender Type	Two bid system: (a) Technical Bid (Part A) (b) Commercial Bid (Part B)
5	Place of Tender Submission	To the chairperson Solid State and Structural Chemistry Unit Division of Chemical Sciences Indian Institute of Science Attn: Dr. Sreedhara M.B
6	Last Date & Time for Submission of Tender	13 th February 2025 5.00 PM

All interested vendors must submit a detailed response demonstrating their capability to deliver the requested equipment with the price quoted either in CIF Bangalore basis or to the destination in INR. The deadline for submission of tender proposal is 13th February 2025.

The bids should be addressed to:

The Chair,

Solid State and Structural Chemistry Unit (SSCU)

Indian Institute of Science (IISc)

Bengaluru, India - 560012.

Kind attention: **Dr. Sreedhara M.B**

email: sreedhara@iisc.ac.in, chair.sscu@iisc.ac.in

The sealed bids should be sent to:

Dr. Sreedhara M.B

Solid State and Structural Chemistry Unit

Indian Institute of Science (IISc)

Bengaluru, India - 560012.

email: sreedhara@iisc.ac.in Ph: +91-80 2293 3307

For any queries related to this RFQ, please contact Dr. Sreedhara M B via email at: sreedhara@iisc.ac.in.

Section 2- Eligibility Criteria

Prequalification criteria:

1. Only the Original Equipment Manufacturer or their authorized representatives across the globe shall participate in the bid.
2. The Bidder's firm should have existence for a minimum of 3 years. (Enclose Company Registration Certificate)
3. The Bidder should have qualified technical service personnel for the instrument(s) based in India.
4. If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach authorization certificate along with the technical bid from the original equipment manufacturer.
5. The bidder should sign and submit the declaration for 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. The order will be placed only on the bidder who participated in the bid.

Section 3: Terms and Conditions

A) Submission of tender

1. Quotes must be submitted by either the Original Global Equipment Manufacturer (OEM) or their authorized Indian distributor. All documentations in the tender bid should be in English.
2. Tender should be submitted in two envelopes (two bid system).
 - a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications.

The technical proposal should contain a technical compliance table with 5 columns.

 - i. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
 - ii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
 - iii. The third column should describe your compliance with a "Yes" or "No" only. Ensure that the entries in column 2 and column 3 are consistent.
 - iv. The fourth column should state the reasons/explanations/context for deviations, if any.
 - v. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details, compare your solution with that of your competitors or provide details as requested in the technical requirements table below.
 - b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, **as per the format of quotation provided in tender**, and other commercial terms and conditions.
3. The technical bid and price bid should each be placed in separate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly

superscripted with the Tender No, Tender Description & Due Date.

4. The SEALED COVER superscripting tender number / due date & should reach *“The Chair, Solid State and Structural Chemistry Unit (SSCU), Indian Institute of Science, Bangalore – 560012, India”* on or before due date mentioned in the tender notice. In case due date happens to be holiday the tender will be accepted and opened 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 should mention GST Registration and PAN in the tender document (Indian Bidders only).
7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
9. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

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

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer:

The offer shall be valid 90 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. 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 in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.
4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.
5. 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 due date and time and or by email / fax (unless specified otherwise).
 - c. Receipt of bids in open conditions.
6. In case 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.

7. 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.
8. 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, optional items, recommended spares, warranty, annual maintenance contract. Also see section G.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system is to be under warranty period of minimum 3 years (year wise breakup value should be shown in the commercial bid) including free supply of consumables, spare parts and data analysis software from the date of functional installation. 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. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

G) Annual Maintenance Contract:

An annual maintenance contract for a period of at least 2 years post warranty should be provided on completion of warranty period. If the equipment cost is A, AMC is B, the lowest bid will be calculated as $L1=A+5*B$.

H) 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 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.

I) Delivery, Installation and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed and made functional within 90 days from the date of receipt of purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed. The bidder should also arrange for technical training to the local facility technologists and users.

J) Payment Terms:

The payments to non-domestic vendors will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank guarantee 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 on to IISc, Bangalore.

L) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender 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 furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
5. 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.

Section 4: Technical Specifications

Requirement for a Gas chromatography (GC) system

A GC system with appropriate detectors capable of analysing elutes/samples from following reactions:

1. CO₂ reduction experiment: C1 products - CO, CH₄, HCOOH, CH₃OH | C2 products - C₂H₄, C₂H₅OH, C₂H₆,
 2. H₂ evolution reaction: H₂
 3. N₂ reduction reaction: N₂, NH₃
- Limit of quantification of each gas at 100 PPM and CO₂ is (90 - 100 PPM)

Technical Specifications

A) Gas Chromatograph

- Column Oven can accommodate two columns with maximum temperature range up to 400-450 degree C with set point resolution of 0.1-degree C.
- It should support 15 ramps & maximum temperature ramp rate of 60-100 degree C/min.
- Cool down of Oven from 400/300 degree to 50 degree in less than 6 minutes.
- Auto retention time adjustment feature
- All the parts should be corrosion resistant (hastelloy) for NH₃

- Future upgradable to MSMS and QTOF (**Optional**)
- B) Gas Sampling valves**
- 6-port hastelloy Gas sampling valve – 2 nos.
 - 6-port column isolation – 2 nos
 - Separate Automated heated valve box – 4 nos (or should be able to accommodate all the valves mounting)
 - 10- port hastelloy gas sampling valve - - 2 nos
 - Flow sources for all 6 & 10 port valves
 - Gas sampling valve loop – 0.5cc – 1nos
 - Gas sampling valve loop – 1 cc – 2 nos
 - Gas sampling valve loop – 2 cc – 1 nos
 - Gas sampling valve loop – 5 cc – 1 nos
 - Gas sampling valve loop – 10 cc – 1 nos
 - Methanizer – 1 no.
 - Pressure balance valve or sample start/stop valve should be included for automated operation.
- C) Thermal conductivity detector (TCD)**
- Temperature range up to 400°C or above
 - Minimum Detection quantity: 400 pg tridecane/mL with He carrier or > 40000 mV x ml/mg Decane
 - Linear dynamic range: >105 ±5 %
- D) Flame Ionization Detector (FID)**
- The maximum temperature should be 400 degree C or more.
 - minimum detection limit should be as low as in the range of 1.4 - 3 Pg C/sec or better
 - Data acquisition rate of more than 300 Hz.
 - Flameout detection and re-ignition should be possible.
- E) Accessories**
- Compatible PC & Printer
 - Nitrogen, Hydrogen, zero air and Argon Cylinders (01nos each) with regulator and Gas Purification panel. All the cylinders should be covered with four side caging system and enough tubing should be supplied so that cylinders can be connected with GC
 - Interested vendors can visit and inspect the site and distance from lab to cylinder place.
 - Suitable (5/7.5) kVA UPS with 60 minutes back up.
- F) Columns & Consumables**
- Appropriate number and length of columns (packed or capillary, Porapak-Q /Haysep mesh etc) and molecular sieves that's required to make the GC capable of achieving the detection of above-mentioned gases with specified limits as per requirement.
 - Airtight Syringes for manual injection, 2 ml, 5ml and 10ml
 - Installation Kit for GCs w/out gas purifiers. Includes leak detection fluid, swage-type fittings, copper tubing, syringes, screwdrivers and wrenches.
 - Appropriate number of flexible metal ferrules and septums
 - All the consumables that are necessary for the operation GC and to execute our requirements mentioned above
- G) Software**

- Genuine original software with lifetime license to control GC and data analysis
- H) Installation and Training**
- The installation should be done by a factory-trained engineer, followed by operational training of 5 days.
- I) Warranty**
- 3 Year warranty on complete instrument.
- I) Other Requirements**
- The payment terms will be specified in the commercial proposal and is subject to negotiations.
 - Provide a set of basic experiments for operational efficiency checks and include a standard sample for estimating column efficiency.
 - Include details of trained service personnel based in Bangalore.
 - Technical bid must have product brochures and datasheets for the proposed system.
 - Demonstrate experience with a list of at least 10 GC installations in Government organizations within the last five years, including contact details for verification.
 - Ensure a dedicated service and application support team based in Bangalore for prompt assistance and their contact details should be provided.

Section 5: Technical Bid

The technical bid should furnish all requirements of the tender along with all annexures in this section and submitted to

The Chair,

Solid State and Structural Chemistry Unit (SSCU)

Indian Institute of Science (IISc)

Bengaluru, India - 560012.

Kind attention: **Dr. Sreedhara M.B**

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 and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name:

Designation, Seal

Date:

Annexure 2:

Declaration regarding experience

To,
The Chair,
Attn: Dr. Sreedhara M.B
Solid State and Structural Chemistry Unit,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXXX Dated: XXXXX

Sub: Supply and installation of Gas chromatography system at SSCU, IISc Bangalore

Sir,

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

I hereby declare that my company / firm has --- years of experience in supplying and installing gas chromatography systems.

(Signature of the Bidder)

Printed Name

Designation, Seal

Date:

Annexure 3:

Declaration regarding track record

To,
The Chair,
Attn: Dr. Sreedhara M.B
Solid State and Structural Chemistry Unit,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXX

Dated: XXXXX

Sub: Supply and installation of Gas chromatography system at SSCU, IISc Bangalore

Sir,
I've 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'm 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 / case is pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long

(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).

Yours faithfully
(Signature of the Bidder)

Name
Designation, Seal

Date:

Annexure 4:

Declaration for acceptance of terms and conditions

To,
The Chair,
Attn: Dr. Sreedhara M.B
Solid State and Structural Chemistry Unit,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXX

Dated: XXXX

Sub; Supply and installation of Gas chromatography system at SSCU, IISc Bangalore

Sir,

I've carefully gone through the Terms & Conditions as mentioned 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'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name

Designation, Seal

Date:

Annexure 5:

Details of items quoted.

- a. Company Name
- b. Product Name
- c. Part/Catalogue number
- d. Product description/main features
- e. Detailed technical specifications.
- f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Section 6: Commercial bid format

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

Sl.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1	Essential items noted in the technical specification				
1a	...(details of the essential items)				
1b					
2	Optional items noted in the technical specification				
2b				
3	Accessories for operation and installation				
4	All Consumables, spares and software to be supplied locally				
5	Warranty (3 years)				

Any additional items

Sl.No.	Description	Cat. Number	Quantity	Unit Price	Sub total

Section 7: Checklist

The following items must be checked before the bid is submitted.

1. Sealed Envelope "A": Technical Bid

Technical bid (each page signed by the authorized signatory and sealed) along with the below annexures:

- a. Annexure 1: Bidders details
- b. Annexure 2: Declarations
- e. Annexure 3: Details of item quoted.

2. Sealed Envelope "B": Commercial Bid

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