

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

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

NIT No. : IACS/SAIS/SG/2018-19/90

Date: 23/01/2019

Sealed tender in two bids system (technical bid and price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for **600 MHz High Resolution FT-NMR Spectrometer**

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

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

Tender Notice No.	NIT No. IACS/SAIS/SG/2018-19/90 Date: 23-01-19
Last date and time of submitting tender	21st February 2019 by 2.00 PM
Pre-bid meeting(date, time & place) to discuss technical specification	11th February 2019 at 3-00 P.M. in Roy Chowdhury Hall at IACS
Date and time of opening tender (Technical Bids)	21st February 2019 by 3-30 P.M.
Place of opening tender	Roy Chowdhury Hall at IACS
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.
Contact	Email: psusg2@iacs.res.in; bcab@iacs.res.in Tel.+91 33 2473 4971 [Ext.1563]

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

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

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

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

Quotations received incomplete or beyond the stipulated time will be summarily rejected.

Bidders should submit their past experience for supplying and successful installation of similar units to other research Institutes/Universities/other organizations in India and abroad. Please provide documentary proofs of such successful installation and supportive documents that the instruments are running successfully.

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly superscribed as 'TECHNICAL BID' on the outer cover of the envelope as already detailed above. **It should be clearly mentioned on the envelope as "Technical Specification for 600 MHz High Resolution FT-NMR Spectrometer".**

Technical Specification for 600 MHz High Resolution FT-NMR Spectrometer:

600 MHz High Resolution FT-NMR Spectrometer

Please send offers, **ALONG WITH DESCRIPTIVE CATALOGUE/ BROCHURE/ PUBLISHED LITERATURE** (as proof of the specs).

Detailed Desired Specifications for 600 MHz high resolution FT-NMR Spectrometer

Magnet and operating frequency:

1. Latest technology based stable and actively shielded superconducting magnet with an operational frequency of 600 MHz (14.09 T) for ^1H
2. Liquid helium hold time of Magnet: 365 days or more
3. Magnet Bore Diameter: 54 mm
4. Shortest possible radial distance (≤ 0.8 meter) and axial distance (≤ 1.5 meter) of stray 5 Gauss field from the centre of the magnet. (specify the overall Magnet dimensions/ceiling height requirements)
5. Liquid helium Boil off rate should be less than 30 ml/hour
6. Liquid helium and liquid nitrogen level indicator and alarm
7. Anti-vibration platform/stand
8. Liquid helium transfer line
9. Standard test samples for multinuclear studies

Console:

1. Three broadband channels RF systems for ^1H , ^{13}C , ^{15}N , ^{31}P , ^{19}F and other active nuclei. Amplifiers provides high frequency and phase resolution. Specifically ^1H and ^{19}F Channel (dedicated); Broadband X channel ^{31}P to ^{15}N or ^{14}N ; Third channel: ^{15}N
2. Automatic high performance gradient shimming for 1D and 2D along with lock, spin and insert / eject.
3. Deuterium lock channel with high precision phase and field correction.
4. Multi Receiver capability, receiver on each channel (3 channels = 3 receivers).
5. Appropriate amplifiers / preamplifiers for each channel for observation or decoupling of ^1H or ^{19}F (at least 80 W) and in the range of ^{31}P to ^{15}N (at least 400 W)
6. Variable temperature unit with all components for both high (+150 deg C or higher) and low (-120 deg C or lower) temperature.

7. Cooling device for sample for Low temperature experiment down to -120 deg C.

Probes:

1. Multinuclear Z-gradient based broad band probe (5 mm) with automatic tuning and matching facility for observation of ^1H nuclei with ^{19}F decoupling or ^{19}F observe with ^1H decoupling and for observation of nuclei in the range of ^{31}P to ^{15}N etc. with ^1H decoupling/observe.
2. Tripple resonance Indirect Probe (H-C-N) 5 mm Z gradient with automatic Tuning and matching facility
3. Probes should be equipped for variable temperature experiments ≤ -150 deg C to $\geq +150$ deg C) with suitable attachment.
4. CP-MAS Probe for Solid sample analysis and its accessory (additional rotors and caps- 2 caps for every rotors) - with top loading facility
5. HR-MAS Probe for Semi-solid and soft matter analysis - with top loading facility
6. Inverse probe for low concentration proton samples.

User interface:

1. One high performance state-of-the-art workstation with tools/software/data cards for data acquisition, processing, plotting, structure verification, spectral simulation and multiple analyses of 1D and 2D (HSQC, TOCSY, COSY, HETCOR, NOESY, HMBC, DOSY, DQF COSY, J-resolve). One work station should be equipped with Linux/Windows based software for data collection and processing.
2. LCD monitor (24 inch), Laser printer.
3. NMR software for acquisition and processing including pulse sequence program.
4. All required documents, manuals, installation CDs/DVDs etc. for hardware and software.
5. Data processing software should be compatible with Windows operating system on any PC or Laptop.
6. Special software like molecular structure determination, Dynamic centre etc.
7. An additional work station for data storage
8. Automatic sample changer for at least 24 samples.

Optional Items:

1. One additional processing workstation with monitor loaded with software.
2. Additional processing licenses-10 nos.
3. 500 numbers of NMR tubes

Additional Indigenous items (Should be quoted in Indian currencies):

1. A suitable UPS for the whole system with a minimum of one hour backup time.

2. A suitable **oil-free air-compressor** complete with dryer and proper ratings/specification capable of catering to all the needs.

3. Liquid nitrogen and helium for installation.

Installation and maintenance:

1. The vendor should have established service base in Kolkata region. All contact details, including email and phone numbers of the office/s and personnel should be provided.

Training:

1. Initial on-site training to the staff for 2-3 weeks or as long as required to do all possible representative experiments.

General information:

1. The technical specifications should be quoted in the same manner as described in the technical specifications desired in the tender. A compliance report should be attached in this regard.

2. Vendor should provide a certificate that the spares will be provided in future for a period of ten years.

3. The vendor should provide the total number of installations of 600 MHz NMR instruments installed by the Vendor in India and should have at least two successful installations in Eastern India.

4. Servicing facility within India is a must while service engineer stationed at Kolkata will be preferred. A list of other places where the instrument has been installed should also be provided.

Warranty:

A comprehensive warranty must be offered for the instruments and accessories for minimum 2 years from the date of successful installation while additional 3 years (total 5 years) extendable warranty is preferable. In case, the machine is down for more than 1 week during the warranty period, number of days accordingly should be compensated by providing additional extended warranty free of cost.

A compliance table (see below) must be prepared and submitted along with the technical bid.

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

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

2. PRICE BID

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as 'PRICE BID' on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and they will be

intimated the date and time of the opening of price bid at their e-mail ids. Rest of the bidders will stand rejected.

PRICE: Price to be quoted on CIF Kolkata and also FOB basis.

3. BID SECURITY:

An Account payee Demand Draft of any of the Commercial Banks for Rs.11,00,000 (Rupees eleven lakhs only) drawn in favour of “Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN000093, MICR Code: 700002048)” is to be furnished by the bidders alongwith Technical Bid, except Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organisation or the concerned Ministry or Department.

Alternatively, the bidder shall have the option to furnish EMD in the form of Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the Commercial Banks. The Bid-Security should have at least 90 (ninety) days validity period beyond the final bid validity period.

In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

4. PERFORMANCE SECURITY:

An Account Payee Demand Draft on any commercial bank of India or Bank Guarantee (BG) of any Commercial Bank preferably located at Kolkata of 10% of the order value in the name of “Indian Association for the Cultivation of Science” is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the Performance security money.

5. TERMS OF PAYMENT :

Payment will be made through irrevocable Letter of Credit in two instalments. 90% of the money will be released on submission of shipping of documents. Remaining 10% will be released after successful installation of the instrument.

6. GENERAL INSTRUCTIONS :

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

9. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.
10. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.
11. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
12. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
13. In case of any dispute, the decision of IACS authority shall be final and binding on the bidders.
14. In case of any litigation the matter will be dealt within the jurisdiction of the High Court of Calcutta only
15. For any clarification regarding technical specifications, information etc., please send your queries to Professor Suhrit Ghosh (psusg2@iacs.res.in) or Professor Aurindam Banerjee (bcab@iacs.res.in).
16. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Acting Registrar