

INDIAN INSTITUTE OF TECHNOLOGY DELHI HAUZ KHAS NEW DELHI

Date: 13.1.2012

Notice Inviting Quotation

Quotations are invited for the purchase of **500 MHz NMR Spectrometer** for the Department of Chemistry. Interested suppliers are required to submit their quotations as per the specifications given below. The sealed Quotations are to be submitted in two Separate envelopes;

A - for Technical Quote (Specifications) &

B - for Financial Quote.

(For details see Annexure I)

Both these envelopes should be enclosed in an outer envelope, which should also be sealed and addressed to, **Prof. A K Singh, Head Chemistry**, clearly mentioning on top right corner of the envelope "**Quotations for NMR Spectrometer**"

The quotations should reach the office of **Prof. A.K. Singh, Head, Department of Chemistry, MS731, Indian Institute of Technology – Delhi (IIT Delhi), Hauz Khas, New Delhi-110016., by 13/2/2012, 5.00PM**. If needed, the suppliers may be asked to make a technical presentation before the committee.

Institute reserves the right to accept or reject any of the offers without assigning any reasons.

Technical Specifications of NMR spectrometer

Computer controlled NMR Spectrometer. Following specifications should be incorporated as per our scientific needs:

1. 11.7 Tesla (500 MHz) superconducting magnet (ultrashield) with 54 mm bore alongwith standard magnet stand with vibration damping accessory. Stray Field: radial 0.6 m/axial 1.2 m
2. Liquid He hold time of at least 300 days.
3. Four independent RF channels with appropriate electronics. Provides <0.015 degree phase resolution and < 0.006 Hz frequency resolution.
4. Digital Temperature controller system with necessary accessory to maintain sample temperature in the range (-60)-100 °C.
5. Deuterium lock switch
6. Integrated real-time shim gradient control for 3-axis shimming, automated tuning, and shimming
7. 5 mm probe for observation of ¹⁹F with ¹H decoupling and observation of any nucleus in the range from ³¹P to ¹⁵N with ²H lock channel, automated tuning and matching and Z-gradient.
8. 5 mm triple resonance probe (¹H/¹³C/¹⁵N) with triple-axis (x,y,z) pulsed field gradients with automated tuning and matching
9. Appropriate software (for running and data processing of individual components and mixtures) with the provision for upgrade whenever new version gets available.
10. One license of the data processing software for offline use.
11. Suitable good quality air compressor (scroll type, oil free, noise free with drier and filter).
12. He, N₂ transfer line.
13. 2 extra nitrogen Dewars.
14. 500 NMR tubes, 20 Shigemi NMR tubes.
15. Should be upgradable to run cryoprobe.
16. He filling during warranty period by vendor.
17. Appropriate computer, printer and UPS with min. of 1 hour backup
18. On-site comprehensive warranty for five years (including all parts, free shipping of warranty items, free maintenance and service).
19. Standard samples for 1D, 2D and proteins.

Optional items and spares

- (1) Extra 5 mm probe for observation of ¹⁹F with ¹H decoupling or observation of any nucleus in the range from ³¹P to ¹⁵N and other inorganic elements.
- (2) Cryo probe with appropriate electronics and automatic tuning and matching.
- (3) Auto sampler
- (4) Spectral library
- (5) Necessary spares including electronic components and replacable circuit boards.
- (6) Liquid nitrogen regenerator.

Chairman (PFC)

**Head
Department of Chemistry**

Annexure I

Envelope A: Technical Quote: The following details are to be enclosed (*Mention clearly on this envelope – **Technical Quote***)

1. Technical brochures mentioning all details with complete address of the principals.
2. A compliance chart based on the specifications as per the NIQ.
3. Any optional equipment / accessory advised to be included separately.
4. Installation requirements including gases and chillers, UPS, etc.
5. List and addresses of organizations where the equipment has been supplied in last 3 years in India.
6. Details of other equipment supplied to IIT Delhi specifying the Department/ centre / lab to which the equipment was supplied. Also mention if the equipment is being maintained by your organization.
7. Address of the technical office, in India, with telephone and FAX numbers. Kindly clarify the type of support available in India.
8. If quote is for imported equipment, Sole Agency-ship certificate on the letterhead of the principal company, if quotation is from an Indian Agent.
9. Proprietary Item Certificate from the principals, if applicable.
10. Agent should be registered for import with ministry of Finance/Commerce. Above certificate kindly be attached.

Envelope B: Financial Quote: The following details are to be enclosed/ ensured. (*Mention clearly on this envelope – **Financial Quote***)

1. The quotations for the equipment in foreign exchange, if it is to be imported. The cost of spares and optional equipment to be quoted separately. The cost should be based on FOB. If equipment is indigenous, the quote should be in INR and all taxes applicable should be mentioned clearly.
2. Institute makes payment after delivery and successful installation. In case the payment terms are different, it should be mentioned clearly. If equipment is to be imported, the address of the company in whose name the LC is to be opened should be stated.
3. Standard warranty details should be provided and in this case the warranty should be at least for five year.
4. The details of the AMC after the warranty period.
5. Cost for Installation and training at site, if needed, to be provided.
6. Validity of the quote should be 90 days.
7. The delivery period to be clearly specified.