

TATA INSTITUTE OF FUNDAMENTAL RESEARCH
Centre for Interdisciplinary Sciences, 21 Brundavan Colony, Gandipet Road,
CBIT Post Office, Hyderabad - 500 075

PUBLIC TENDER NO :	TCIS/PCH/IC14-0219/PUB
PUBLISHED ON :	07.02.2015
DUE DATE :	27.02.2015
COST OF TENDER :	Approx. Rs. 150 Lakhs
TYPE OF TENDER :	TWO PART

DESCRIPTION OF MATERIAL

Micro Raman Spectrometer - 1 Unit
(As per our technical specifications)

Closing time and date : **14.00 Hours on 27.02.2015**
Tender will be open at : **15.00 Hours on 27.02.2015**

Both Technical Bid (Part A) and Financial Bid (Part B) to be submitted within the due date and time in separate envelopes and marked on top as Part A and Part B. These two sealed envelopes should be further put in one Master Envelope super scribed with the Tender No., Due Date in Bold Letters.

Please see attached sheet for conditions of tender.

(D. Hariprasad)
Administrative Officer

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Specifications of Micro Raman Spectrometer

Spectrometer

- Spectrometer Range : 200nm – 2000nm
- Spectral resolution (FWHM): 0.5₁ cm⁻¹ in Visible region
- Raman Spectral range: 100 cm⁻¹ - 4000 cm⁻¹ : s
- Suitable edge filters to suppress Rayleigh background down to 100 cm⁻¹ .
- High Resolution Spectral coverage in one single continuous acquisition and readout of the detector without any step and stitches maintaining 1cm⁻¹ spectral resolution.
- Suitable grating stage with 2400 l/mm
- Motorized neutral density filters offering 16 different power levels from 0.00005 to 100% of the Laser at Sample

Excitation lasers:

- DPSS Laser 100 mW, 532 nm
- Lasers should be directly coupled to spectrometer, fiber coupling not acceptable

Raman system should be fully automatic with no manual change of Laser / optics is acceptable including following:

- Auto alignment and Optimization of input laser power.
- Auto switching and auto alignment of laser
- Self validation using built-in internal reference sample (Silicon).
- Built-in self calibration and intensity correction using Neon sources
- Motorised switching between laser and white light sample images using integral video

Microscope:

Research Grade microscope allowing confocal measurements with better than 2.0 μm depth resolution. Including:

- Reflected Light Illumination
- Objectives : 5x, 20x, 50x & 100x
- Binocular head with color video camera.
- Motorized XYZ Mapping Stage –
Step Size – XY 100nm, Z < 20nm
Stage Travel: 100mm X & 70mm Y

Enclosure

Microscope Enclosure for open laboratory operations

CCD detector

Peltier cooled to –70°C multichannel detector with suitable adapters and electronics interface.
Pixels : 1024 x 256
CCD Range: 200nm – 1050nm
Read out Noise < 7 e⁻ (RMS)
Peak Quantum Efficiency: 48%
Dark current: 0.005 e⁻ pixel⁻¹ s⁻¹

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Spectrometer control software and computer

Spectroscopic acquisition and data analysis software under windows environment, including spectrometer control routines, multichannel data acquisition programs, image capture software for white light image capture and display. Ability to carry out Raman mapping and related analysis.

Computer: Dual Core processor 4 GB RAM, 500 Gb HDD, DVD-RW, Windows 7 Professional (64 bit) Operating system, 22" LCD display,

Additional Software License for 2 users for Offline Analysis

Optional Items

1. Heating Cell for operation upto 1500°C along 50x Long working Distance Objective
2. Fiber Optic probe with
 - a. Built in Raman Collection filter from 100cm⁻¹ from the laser line,
 - b. Built in white light Video Viewer
 - c. Super long working distance Objective 20x, WD 25mm
3. Additional Laser Package 633nm, 17mw with 100cm⁻¹ cutoff Raman collection Filters and additional 1800l/mm grating.

TERMS AND CONDITIONS

1. **PART “A” (Technical Bid) consisting of Technical Bid & Commercial Terms** and **PART “B” (Financial Bid) consisting of only Price** shall be submitted in **separate** sealed envelopes duly superscribed with the tender enquiry number, and the due date in bold letters, addressed to the Administrative Officer, Tata Institute of Fundamental Research, 21, Brundavan Colony, Narsingi, Gandipet Road, Hyderabad - 500 075. The envelopes should be clearly marked on top as either PART “A” or PART “B”. The two sealed covers should be further put in a master cover superscribed with the Tender Enquiry No., Due Date in bold letters, addressed to the Administrative Officer, Tata Institute of Fundamental Research, 21, Brundavan Colony, Narsingi, Gandipet Road, Hyderabad - 500 075. The sealed master envelop has to be delivered by hand/courier at the security Gate of TIFR, Hyderabad on or before 14.00 hrs on the due date specified. The technical bid will be opened in the presence of attending tenderers at 15.00 hrs on the due date at Administration Section, TIFR, Hyderabad. Tenders submitted after 14.00 hrs. on due date will not be considered.
2. In case the PART "A" and Part "B" bids are not sealed in separate envelopes the tender will be rejected.
3. The technical bid should not contain any indication of the price.
4. After scrutiny of Technical Bids, Financial bids of only those bidders who are shortlisted on technical basis will be opened at on later date. The opening date, time and venue will be intimated to the technically successful bidders.
5. The firm who wishes to download the specifications, terms and conditions may do so. While submitting the quotation, a **DD of Rs. 500/-** for each tender drawn in favour of "Tata Institute of Fundamental Research, Hyderabad" payable at Hyderabad may please be enclosed along with Technical Bid. In case of Foreign Suppliers prepare advance cheque for **US\$100**.
6. After downloading the documents please inform your company details such as name, address, telephone nos., contact person and email address etc. by email to us. (msrilatha@tifrh.res.in, harid@tifrh.res.in), to enable us to inform prospective bidder for any corrigendum/changes if any; in the Tender document before due date.
7. Quotations must be valid for a period of 180 days from the tender opening date.
8. Tenders containing correction, overwriting will not be considered. Late or delayed/unsolicited quotations/offers shall not be considered at all. Post tender revisions/corrections shall also not be considered.
9. Tenderer should sign on all the pages of the technical bid and the price bid.
10. The offer for Import item should indicate separately the price on Ex-works basis (duly packed airworthy and of international standard). For local item / supply, offer should be on FOR basis (i.e., total landed cost of delivery at TIFR Hyderabad).
The dimensions of the item (viz. H, W, L, weight etc.) shall be specifically stated and also mention whether the mode of shipping the item is Airworthiness. Accordingly the mode of shipment will be decided by TIFR.
11. If equipment offered is to be imported, arrangements for import will be made by us.
12. Tenders who do not comply with any of the conditions are liable to be rejected.
13. The Institute shall be under no obligation to accept the lowest or any other tender received in response to this tender notice and shall be entitled to reject any tender without assigning any reason whatsoever.

14. TIFR reserves the right to place the order for part/reduced quantity than what is specified in the tender.
15. PAYMENT TERMS: **80%** payment shall be made through irrevocable L/C on presentation of complete and clear shipping documents and balance **20%** of the amount shall be released after the receipt, installation, commissioning and acceptance of the equipment.
16. For Import cases: **No Agency commission will be paid as per Govt. of India rules.**
17. TIFR is exempted from paying of **Custom Duty** under the notification No.51/96 dated 23.07.1996, **Excise Duty** under the notification No.10/97 dated 01.03.1997, for all procurements/supply meant exclusively for Educational, scientific and research purpose. Whenever the exemption certificate not honored by the authorities, the applicable duty will have to be paid. Hence Excise & Custom duties, if any, should be shown separately.
18. **SALES TAX:** TIFR does not have any exemption/concession on payment of Sales Tax/VAT and we are not authorized to issue any Sales Tax Form „C“ & „D“
19. The delivery period should be specifically stated and earlier delivery may be preferred.
20. **The Supplier shall arrange to ship the ordered materials within the mutually agreed delivery period mentioned in the order unless extended with/without penalty.**
 - a. In case of delay in supply on part of the supplier, a penalty @0.5% per week of order value will be charged for delayed period subject to a maximum of 10% order value.
 - b. If the delay in the shipment of the ordered materials attributable to the supplier exceeds agreed time period from the date of original agreed upon date of shipment and extended with/without penalty, the TIFR, Hyderabad shall have the right to cancel the contract / purchase order and recover the liquidated damages from other dues of the party or by legal means. It will also affect the other/future business dealings with such suppliers.
 - c. The same rate of penalty shall be applicable for late installation of the equipment/instrument also.
21. **COMMENCEMENT OF WARRANTY PERIOD:** The warranty period of an item shall commence from the date of receipt of the item in good working condition and satisfactory installation/commissioning/demonstration at the project site.
22. **ANNUAL MAINTENANCE CHARGES:** The party must mention in the quotation, the rate/amount of annual maintenance charges, if we opt for maintenance contract after expiry of the warranty period if necessary.
23. Specifications are basic essence of the product. It must be ensured that the offers must be strictly as per our specifications. At the same time it must be kept in mind that merely copying our specifications in the quotation shall not make the parties eligible for consideration of the quotation. A quotation has to be supported with the printed technical leaflet/literature of the quoted model of the item by the quoting party/manufacturer.

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24. **OBSERVANCE OF LOCAL LAWS:** Wherever applicable (particularly for Local vendors),

the vendor / contractor shall comply with all law, statutory rules & regulations etc. The vendor/ contractor shall obtain all necessary permits / approval from the local Governing Body, Police, and other concerned Authorities as may be required under law. The vendor /contractor shall pay all types of taxes, fees, license charges, deposits, duties, tolls, royalty or other charges that may be leviable on account of any the operations connected with the execution of this work/ contract.

25. In case of any interpretational issues arises in this tender, the clarifications/decision of TIFR shall be final and binding on the bidder.
26. It is the responsibility of the vendor to make sure that the system being proposed can be exported to India with TIFR as the end user. All clarificatory documentation must be submitted with the Bid.
27. TIFR reserves the right to ask for or to provide any clarification, changes after the release of this tender. **Any changes or clarifications provided by TIFR may be checked at TIFR website <http://www.tifrh.res.in/tcis/contact/tenders.html>**

Administrative Officer
TIFR - Hyderabad