USC/RTG/ Of 2012 Date: 16/04/2012

TO

Separate sealed Tenders for purchase of following item are invited, for and on behalf of University of Mumbai by the Co-ordinator, Sub-centre Ratnagiri, University of Mumbai, so as to reach him in his office latest by 2.00 p.m. on Wednesday, 16th May, 2012.

1. Fourier Transform Infrared Spectrometer (FTIR)

Blank forms containing terms and conditions of supply and technical specifications are available in the office of the Co-ordinator, Sub-centre Ratnagiri, University of Mumbai, on all working days between 11.00 a.m. and 4.00 p.m. from Monday, 16th April, 2012 to Tuesday, 15th May, 2012. The tenders duly complete in all respects, along with the necessary documents should be submitted to the Co-ordinator, Sub-centre Ratnagiri, University of Mumbai, latest by 2.00 p.m. on Wednesday, 16th May, 2012.

The tenders so received **(Technical Bids)** will be opened by the Co-ordinator, Ratnagiri Sub-Centre, University of Mumbai, **on Wednesday, 16th May, 2012 at 3.30 p.m. However the Commercial Bids will be opened on Saturday, 19th May, 2012 at 11.30 a.m.** in the office of the Co-ordinator, Sub-centre Ratnagiri, University of Mumbai,P-61 MIDC Mirjole Pin- 415 639 in presence of representatives of the suppliers. Right to reject any or all tenders, without assigning any reason thereof, is reserved by the University of Mumbai.

Sd/-
Registrar

Ratnagiri Sub-Centre,
University of Mumbai,

P-61 MIDC Mirjole,
Pin Code- 415 639.
Phone: 02352- 230086/88/44
Fax: 02352-230044

Tender Document

Date 16th April, 2012

Part A –Terms and conditions
Part B – Specifications

Price Rs. 1,000.00 (non refundable)

Important Dates

Sale of Tender forms	:	Monday, 16th April, 2012 to Tuesday, 15th May, 2012 (All working days, from 11.00 a.m. to 4.00 p.m. except 2nd and 4th Saturday and public holidays)
Last Date for receiving sealed	:	Wednesday, 16th May, 2012 up to 2.00 p.m.
Date of Opening of Tenders Technical Bid Commercial Bid	: : :	 Wednesday, 16th May, 2012 at 3.30 p.m. Saturday, 19th May, 2012 at 11.30 a. m.

Co-ordinator,
Sub-centre Ratnagiri
UniversityMumbai ,
(Seal & sign)

Ratnagiri Sub-Centre,
University of Mumbai,
P-61 MIDC Mirjole,
Pin Code- 415 639.
Phone: 02352- 230086/88/44
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Tender Document

Date 16th April 2012

Part A –Terms and conditions for Supply of Fourier Transform Infrared Spectrometer (FTIR)

1. The last date and time for the acceptance of the Tender is Wednesday, 16th May, 2012 up to 2.00 p.m.

2. The tenderers shall submit the following documents along with their tenders.

   a. Income tax clearance certificate, from the Income Tax officer concerned, certifying that the tenderer has cleared all the Income Tax dues.

   b. Suppliers should state whether they are a Propriety Firm, Partnership Firm or a Private / Public Limited Company and furnish a profile of the firm. They should also clearly mention whether they are manufacturers, authorized dealers or retail suppliers.

   c. The names of the organizations and the offices to which similar supplies have been made.

   d. Earnest Money Deposit in the form of Demand Draft in favour of Finance and Accounts Officer, University of Mumbai, on any Scheduled / Nationalized Bank payable at Mumbai.

   e. Sales Tax Registration No.

   f. Technical specifications offered by the Supplier

3. The rates should be mentioned in the Schedule attached with the tender paper. Each page of the tender shall be signed in full and stamped with the seal by supplier. The supplier must clearly state in what capacity he or she is signing the tender.

4. The tenderers shall submit the tender in two envelopes. The first envelope (Technical Bid) shall contain all the documents referred to in Para 2 above and shall be sealed. The second envelope (Commercial Bid) shall contain the Schedule, in which the supplier shall register the rates of supply. The second envelope shall also, likewise, be sealed. Both

the envelopes then should be put together and shall be sealed in an envelope, and shall be submitted to the University by the prescribed time and date. The Technical Bid shall be opened first to ensure that the tenderers have submitted all the requisite documents. If the technical Bids are not in order or are deficient in some respect, the Commercial Bids in respect of such tenders shall not be opened.

5. The amount of Earnest Money Deposit shall be 5% of the cost of supply subject to a maximum of Rs. 1,00,000.00 (Rs. One Lakh only). The Earnest Money Deposit should be in the form of Bank Draft drawn on a nationalized / scheduled bank (payable at Mumbai) in favour of the 'Finance and Accounts Officer, University of Mumbai.

6. Tenders not accompanied by the requisite amount of Earnest Money Deposit are liable to be rejected.

7. The Earnest Money Deposit paid by the supplier shall be forfeited, if the supplier fails to pay the necessary Security Deposit in the event of his tender being accepted.

8. The amount of Security Deposit / Performance Guarantee shall be 5% of the cost. In case of successful tenderers the amount of Earnest Money Deposit shall be converted in Security Deposit / Performance Guarantee and refunded after the warranty period is over. The Security deposit / Performance Guarantee shall be paid in the form of a Bank Guarantee from a Scheduled Bank.

9. Supplier should read carefully all the instructions and terms and conditions, etc., before registering rates in prescribed scheduled of the tender. Taxes and duties etc. should be shown separately.

10. The offers made by the suppliers shall be open for acceptance for 120 days after the last date of submission of tender.

11. The tenders (Technical Bids) will be opened by the Co-ordinator, Ratnagiri Sub-Centre, University of Mumbai, in his office on Wednesday, 16th May, 2012 at 3.30 p.m. However, the Commercial Bids will

be opened on Saturday, 19th May, 2012 at 11.30. The tenderers or their authorized representatives shall be allowed to be present at the time of opening of the tenders.

12. In case of imported items / equipments the rates should be quoted in the light of exemptions enjoyed by educational institutions. The University is exempted from payment of Excise/Octroi and the necessary certificates / forms can be issued by the University.

13. Technical specifications of the instrument / equipment are given in the Annexure of these papers (Part B).

14. The delivery time of instrument / equipment should be clearly mentioned in the tender. No extension shall be granted to the contractors / suppliers for the period of delivery mentioned in the tender, under any circumstances.

15. If the supplier fails to deliver the article as per the delivery schedule, the University of Mumbai shall be free to procure the balance / undelivered supply, at the risk and cost of such supplier.

16. The goods, article, material supplied by the contractor shall be accepted after inspection by an officer authorized by the competent authority. No article / material which do not confirm to the specifications laid down in the terms and conditions or damaged in transit or otherwise, shall be accepted.

17. The bills of the suppliers shall be paid by the University after all the article/ material/ instrument / equipment has been received, inspected as above.

18. The warranty period shall be at least for one year from the date of installation.

19. Supplier should give free service at least for three years after the warranty is over.

20. Undertaking from the manufacturer that parts will be made available at

least for next ten years even after discontinuation of the supplied model is necessary.

21. A list of all the necessary accessories and spares required to make the unit functional should be provided. Names and phone numbers of the persons responsible for Sales and Service for this territory should be mentioned.

22. Supplier should have at least five orders from Institutions / Laboratories in the past three years (P. O. to be attached).

23. As the supplier shall be responsible for the supply and installation (whatever necessary) of the equipment at the Ratnagiri Sub-Centre, University of Mumbai, the cost towards insurance, etc., shall be borne by the suppliers.

24. The basic operator training should be provided by the competent Engineers during the time of installation.

25. Without any purchase commitment, demonstration should be arranged at the cost of the supplier for the quoted instrument at two places in Mumbai.

26. In the event of any breach of the terms and conditions of the supply, the University of Mumbai may terminate the contract placed with the supplier and forfeit the Security Deposit of the supplier.

SCHEDULE TO TENDER

Note:

1. Tenderers are advised to read carefully the Terms and Conditions of supply and "the Instructions to the tenderers" before recording the rates in this schedule.

2. No erasures or overwriting shall be allowed, unless they are authenticated under the full signature and seal of the tenderers.

3. The Rates shall be FOR, at destinations / godowns/ places indicated in the delivery.

Item No.	Description of goods with details of specifications	Number /Quantity	Price / Rate per Unit	Taxes, Duties etc.

Full Signature of Tenderer

(Seal of the Firm)

Ratnagiri Sub-Centre,
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Tender Document
Date 16th April, 2012

Part B – Technical Specifications

TECHNICAL SPECIFICATIONS FOR FOURIER TRANSFORM INFRARED SPECTROMETER (FTIR)

- The instrument spectral resolution should be continuously variable to maximum optical retardation of at least 2.0 cm-1
- The standard spectral operating range should be no less than 6,000 - 500 cm^{-1} for ZnSe optics and 7500-350cm^{-1} for KBr optics.
- Weight for the basic spectrometer must be below 10kg and it should be portable.
- Spectrometer components like source, laser, detector, and interferometer must be continuously monitored for operation within factory specifications. The operator must be immediately notified by system software if any of the factory specifications are not met. The software must offer detailed information about the nature of the failure and suggest possible remedy.
- Optical components like detector and source must be electronically coded, so that these components are automatically recognized when placed in the spectrometer. Appropriate parameter must be automatically transferred to the application software.
- Optics should be ZnSe to work smoothly in high humidity area.
- Sampling modules such as Micro-ATR is a must for analysing liquid Powder gel paste and semi liquid. Change between different modules must be easy.
- Sampling modules must be automatically identified and spectral test routines must automatically start to verify accessory performance.
- The FT-IR must incorporate a high throughput 60 degree interferometer and Gold Coated optics for maximum light throughput.
- The interferometer must be permanently aligned. Interferometer design. System that require alignment (either manual or automatic) are not acceptable.
- The interferometer bearing mechanism must be wear-free (frictionless) design to ensure unlimited lifetime. Bearings with wear are not acceptable as they require frequent maintenance and costly exchange.

- The interferometer must utilize retro reflecting cube corners for instantaneous correction of instability due to mirror tilt.
- The system must include a replacement desiccant.
- The system must incorporate an automated internal instrument validation unit. The internal validation unit must be able to incorporate different validation standards and be fully software controlled. This instrument validation must not require user interaction and must produce a report documenting the results of the validation tests.
- Communication between the spectrometer and controlling PC must be performed using an Ethernet protocol.
- The system must be able to be controlled by a laptop computer.

SOFTWARE specifications:

- The software must be "all-in-one" software for data measurement, manipulation and evaluation.
- The software must come with a step by step assistant.
- The software must include search capabilities as well as the possibility to create user own libraries.
- The software must come with a free starter library.
- The software must come with a quantification tool.
- The software must come with an easy to use graphical macro editor.
- The software must include an automatic instrument test (OQ/PQ).
- The software must allow multi level user management.
- The software must be GMP/GLP conform.

The prices quoted for the above optional upgradable accessories should be valid till one year from the date of placement of the order at a later stage. No price escalation will be allowed at a later stage.

PART- C

Tick the appropriate specifications whether provided or not columns in the columns as below and highlight the specifications if provided in the equipment brochures that are to be attached.

Sr. no.	Technical Specifications	Specifications offered by the Party		
		Compiled	Not Compiled	Remarks
1.	Spectral resolution continuously variable to maximum optical retardation of at least 2.0 cm-1			
2.	The standard spectral operating range no less than 6,000 - 500 cm^{-1} for ZnSe optics and 7500-350cm^{-1} for KBr optics			
3.	Weight for the basic spectrometer must be below 10 kg and it should be portable			
4.	Spectrometer components like source, laser, detector, and interferometer must be continuously monitored for operation within factory specifications. The operator must be immediately notified by system software if any of the factory specifications are not met. The software must offer detailed information about the nature of the failure and suggest possible remedy.			
5.	Optical components like detector and source must be electronically coded, so that these components are automatically recognized when placed in the spectrometer. Appropriate parameter must be automatically transferred to the application software.			
6.	Optics should be ZnSe to work smoothly in high humidity area			

7.	Sampling modules such as Micro-ATR is a must for analysing liquid Powder gel paste and semi liquid. Change between different modules must be easy			
8.	Sampling modules must be automatically identified and spectral test routines must automatically start to verify accessory performance			
9.	The FT-IR must incorporate a high throughput 60 degree interferometer and Gold Coated optics for maximum light throughput			
10.	The interferometer must be permanently aligned. Interferometer design. System that require alignment (either manual or automatic) are not acceptable			
11.	The interferometer bearing mechanism must be wear-free (frictionless) design to ensure unlimited lifetime. Bearings with wear are not acceptable as they require frequent maintenance and costly exchange			
12.	The interferometer must utilize retro reflecting cube corners for instantaneous correction of instability due to mirror tilt			
13.	The system must include a replacement desiccant			
14.	The system must incorporate an automated internal instrument validation unit. The internal validation unit must be able to incorporate different validation standards and be fully software controlled. This instrument validation must not require user interaction and must produce a report			

	documenting the results of the validation tests			
15.	Communication between the spectrometer and controlling PC must be performed using an Ethernet protocol			
16.	The system must be able to be controlled by a laptop computer			

SOFTWARE specifications

Sr. no.	Technical Specifications	Specifications offered by the Party		
		Compiled	Not Compiled	Remarks
1.	The software must be "all-in-one" software for data measurement, manipulation and evaluation			
2.	The software must come with a step by step assistant			
3.	The software must include search capabilities as well as the possibility to create user own libraries			
4.	The software must come with a free starter library			
5.	The software must come with a quantification tool			
6.	The software must come with an easy to use graphical macro editor			
7.	The software must include an automatic instrument test (OQ/PQ)			
8.	The software must allow multi level user management			
9.	The software must be GMP/GLP conform			