NATIONAL CENTER FOR COMBUSTION RESEARCH AND DEVELOPMENT (NCCRD)
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
CHENNAI – 600036, INDIA

Ref. No. ICS/11-12/013/DSTX/TSUN   **Date: 9 October 2013**

Due date: 28 October 2013

Item name: Fourier Transform Infrared Spectrometer (FTIR)

1. Quotations are invited in duplicate for the various items shown overleaf (in Annexure I). The quotations duly sealed and superscribed on the envelope with reference no. and due date, should be addressed to the undersigned so as to reach on or before the due date mentioned above.
2. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
3. The total cost of the equipment in terms of CIP Chennai should be clearly mentioned.
4. Terms of warranty and guarantee should be explicitly mentioned.
5. Packing and delivery charges, customs and clearance duty should be clearly stated.
6. Goods shall not be supplied without an official supply order.
7. Local firms : Quotations should be for free delivery to this institute. If quotations for ex-godown delivery charges should be indicated separately.
8. Firms outside Chennai: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If ex-godown, packing, forwarding and freight charges must be indicated.
9. The rate of sales / general taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for sales / general taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax (CST) applicable to non-government educational institutions run with no profit motive for which a concession sales tax certificate will be issued at the time of final settlement of the bill.
10. Payment : Specify the mode of payment and if advanced payment has to be made. Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.
11. IIT Madras is exempt from payment of excise duty and is eligible for concessional rate of customs duty. Necessary certificate will be issued on demand.
12. In case of any queries/clarifications, please contact Dr. R. Vinu, Chemical Engineering, IIT Madras, Chennai, at +91-44-22574187 (office), +91-9500158723 (mobile no.) and/or vinu@iitm.ac.in (e-mail).
13. The sealed quotation may be sent to

    Dr. R. Vinu (Assistant Professor)
    Department of Chemical Engineering, IIT Madras
    Chennai – 600036
    Phone: +91-44-22422525
    Mobile: +91 9500158723
    E-mail: vinu@iitm.ac.in

Annexure I

Ref. No. ICS/11-12/013/DSTX/TSUN

Date: 9 October 2013
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Item name: Fourier Transform Infrared Spectrometer (FTIR)

Component	Requirement

Fourier-Transform Infrared Spectrometer (FT-IR)	1. Wavelength range (Mid-IR): 5100 – 600 cm^{-1}
	2. Beam splitter: ZnSe
	3. Detector: DLaTGS
	4. Wavenumber accuracy: better than 0.05 cm^{-1}
	5. Resolution: Variable (64 to < 2 cm^{-1})
	6. Signal-to-noise ratio: atleast 30000:1 peak to peak
	7. Sealed and dessicated optics
	8. Essential accessory:
	  a. Diamond ATR
	  b. Transmission module

Other accessories	Extra rechargeable dessicants (1 or 2 nos.) Pellet holder for solid samples KBr plates for film samples (2 nos.) Performance validation samples Include standard consumables kit Include hydraulic press, KBr die set Include liquid sample holder
Interface	Ethernet connection for FT-IR operation from PC or laptop Power supply: 230 V, 50/60 Hz
Software	Compatible with Windows 7 OS. Include software CD, installation kit and desktop/laptop computer. Software capable of performing all the basic operations like qualitative and quantitative analysis, principal component analysis, data conversion and corrections, spectrum processing, etc. Also include NIST FT-IR spectral library for unknown compound identification.