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ENQ No.: PHY/SAR/25 SEP2012/NCON-2

25 September 2012

Sealed quotations are invited and should reach the undersigned latest by the **25th of October, 2012**, for: FTIR spectrometer for measuring the infra-red properties of microstructured / nanostructured thin films on substrates.

Specifications:

1. Wavelength range: 5500 cm⁻¹ to 500 cm⁻¹ or better
 2. Wavenumber accuracy : Better than 0.1 cm⁻¹
 3. Signal to noise ratio: 10000:1 for routine measurements or better.
 4. Optics: Gold coated mirrors
 5. Modes: Angle dependent Reflection from and transmission through the samples.
 6. Polarization: Two polarizers for polarizer and analyzer
 7. Beam size: variable from 250 micrometer diameter (min.) to 10mm diameter (max.) at least. (The minimum area over which the properties can be measured from a mounted sample should be at least 250 micrometers in diameter or smaller)
 8. Optional quote for humidity resistant ZnSe optical elements for beamsplitters and windows etc. This will be preferred.
- Interferometer should not need dynamic alignment
 - Facility for external beam to attach additional sample compartment for IR microscope / ATR should be possible. Both output and input beam ports should be available
 - Reflection / transmission measurement at various angles of incidence (~5 to 90 degrees) to the sample should be possible – if necessary with an external arrangement. Separate modules can be used for measuring the transmission and reflection independently.
 - The beam size should be controllable with a combination of apertures (variable or fixed in convenient sizes) in combination with focussing optics
 - Facility to control temperature of the sample in the range 20° to 90° C should be available
 - Facility to purge the beam path with nitrogen should be available (cylinder should NOT be provided / quoted for)
 - Should work with 220-240 V / 50 Hz, power input /plug as per BIS standards
 - Interfaced /interfaceable with a personal computer / laptop computer. Do NOT include cost for computer in the quote. USB / GPIB / Ethernet connection is acceptable. Control and input/output from the computer should be possible.
 - Spectrometer output should provide for transmission / reflectance versus wave number in electronic formats, at the least. Quote separately for usual FTIR analysis softwares and libraries – do not include their cost in the quote for the FTIR.
 - Comprehensive warranty of at least three years on the instruments and its parts.

Important essential points:

Quote should be made in two parts: Technical bid and Financial bid separately in sealed envelopes. Financial bids for products whose technical bid is not acceptable will not be opened. Any quote with the financial bid included in the technical bid will be summarily rejected.

The sealed envelopes with the quotes should be superscribed with the Inquiry number and whether it is a technical or financial bid.

Firms submitting acceptable technical bids will be invited to make a technical presentation on the product to the Purchase committee before opening of the financial bids. The committee, at its discretion, may choose to reject the bids of firms not making the presentation.

Quotes should be made options for the following delivery modes

- Ex-works for pickup by our world-wide transport provider
- FOB in country of origin
- CIF, New Delhi
- For delivery to IIT Kanpur

Maximum educational discounts should be applied – this equipment will be used to teach and train students.

Quotes should have a minimum validity of 60 days

Address the quotations to

Prof. S. Anantha Ramakrishna
Department of Physics
Indian Institute of Technology Kanpur
Kanpur – 208016 India.

so as to reach before the last date, i.e., 25 October 2012.

Sincerely
S. Anantha Ramakrishna