

DEPARTMENT OF PHYSICS
INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI- 110016

Date: 02-09-2011

NOTICE INVITING QUOTATIONS

Sub: extended Deadline : NIQ for the spectrometers for UV Vis/NIR detection

Please refer to the NIQ of the above subject Dt: 16-08-2011. This is to inform all the interested vendors that the quotation deadline has been extended upto **5 PM** on **16-09-2011**.

Please note that:

- **The NIQ details are same as earlier (enclosed herewith)**
- **Those who have already submitted quotations need not send the quotations again and their previous quotations will be considered.**
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G. Vijaya Prakash
PI of the project

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Date: 16-08-2011

NOTICE INVITING QUOTATIONS

Sub: spectrometers for UV Vis/NIR detection

Please send your quotation for purchase of above said item(s) as per specifications given below. Your quotations should reach latest by **5 PM** on **31-08-2011**. Quotations are solicited only for item manufactured by reputed company with proven past record of sales, supply and after-sale service.

I. Spectrometer 1:

Double beam and Double monochromator spectrometer to measure UV-Visible-NIR region absorption, transmission and reflection spectra.

Specification:

1. wavelength range: ~190nm – ~3000nm
2. Accuracy : Wavelength accuracy < 0.2nm (UV-VIS) and <0.8nm (NIR)
3. Slits/spectral bandwidth: variable selection from ~0.1nm to 8nm (Vis) and ~0.1nm to ~20nm (NIR)
4. Baseline accuracy/noise : $\sim 10^{-4}$ abs
5. Lamps : Halogen and Deuterium lamps with >2000 hrs life (replacement lamps are to be provided/quoted), with selectable/automatic switching capability
6. Detection system: double (pre and main) monochromators with Czerny-Turner turnet and gratings of ~1000groovs/nm (UV-Vis) and ~300groovs/nm (Red-NIR), with control on grating change-over.
7. Detector Modules : three detectors, PMT, InGaAs and PbS detectors
8. Sample Compartment : Double beam
9. Sample Holders : 10mm path length cuvettes as well as solid sample (~2mm thick) holders . two 10mm cuvettes should be provided.
10. I/O: RS232 or USB (cables should be provided)
11. Software: compatible to windows Vista/7, (and XP), capable to measure absorption, transmission and reflection (both steady steady-state and measurement over time), spectra processing (smooth, peak find, derivative, conversion etc.,)
12. Warranty : 1 year min.

Accessories (optional)

1. Reflection accessory : compatible to the above instrument. Specular reflectance measurements, 5 deg, angle of incidence, min. size of the sample area should be 5mm dia
2. Temperature controller : compatible to the above instrument. Peltier cooler, ~5-60°C, step selection of 0.1°C or less , cell path length 10mm. One cell each on sample & reference should be temperature controlled.

II. Spectrometer 2:

Double monochromator spectrometer to measure excitation, emission and synchronous emission spectra in the region 200 to 900nm.

1. Light source: 150W xenon source with ozone free lamp housing
2. Monochromator : ~1200 grvs/mm (or above) gratings both excitation and emission side, F/2.5 monochromators both sides
3. Detector : photomultiplier tube (red extended)
4. Scan range: from 200 to 900 nm (including zero-order) both excitation and emission
5. Slit widths : variable, 1.5 to 20nm (both excitation and emission sides),
6. Accuracy : 1nm or lower wavelength resolution, S/N more than 150
7. scan response and scan speeds : variable and selective
8. Scan mode selection: excitation, emission and synchronous (variable from 1nm to 20nm) scannings
9. Sample Holders : single cell for 10mm path length cuvettes . Solid sample (~2mm thick) holders . 10mm cuvettes should be provided.
10. I/O: RS232 or USB (cables should be provided)
11. Software: compatible to windows Vista/7, capable to measure excitation emission, synchronous spectra (both steady state and measurement over time), spectral processing (smooth, peak find, derivative, conversion etc.,)
12. Warranty : 1 year min.

TERMS & CONDITIONS COVERING SUBMISSION OF QUOTATIONS

1. Technical requirements

- 1) All items are to be in metric scale only.
- 2) The quotation must contain the following details, otherwise quotation cannot be considered.
 - a. The quote must contain all the items.
 - b. The technical bid must contain all the required specifications, drawings, graphs (transmission/reflection/response spectra of components if any) etc.
 - c. Along with the technical bid, please enclose support documents related to previous sale of the above items(s) within India.

- 2. DELIVERY:** The rates quoted must be for C.I.F. Delhi (Air Freight) (if required)
- 3. TERMS OF PAYMENT:** **100% payment on delivery and satisfactory installation**
- 4. INSTITUTE'S RIGHTS :** IIT Delhi reserves the rights of acceptance or rejection of any or all quotations.
- 5. VALIDITY OF QUOTATIONS:** Quotations should be valid at least for a period of 3 months.
- 6. SUBMISSION OF QUOTATIONS:** **Both Technical and price bids are to be quoted separately in separate sealed covers. Both these bids** should be sent in a sealed cover marked at the top SUBJECT AND DUE DATE

31st August 2011

Quotations should be sent, on or before due date to:

**Dr. G. Vijaya Prakash,
Department of Physics, IIT Delhi, Hauz Khas,
New Delhi 110 016 (India).**



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PI of the project**