

# Nano Research Facility Indian Institute of Technology Delhi

## Notice for inviting quotations

Dt: 25-08-2011

Sub: Purchase of 1/2m imaging monochromator with UV-VIS and NIR detection attachments

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 09<sup>th</sup> September 2011**. Quotations are solicited only for item manufactured by reputed company with proven past record of sales, supply and after-sale service.

### **Imaging Monochromator ( 1No.)**

1. Focal length : 500mm or higher
2. F/# no. : 6.5 or lesser
3. Resolution : 0.05nm or better with 1200gr/mm grating and 10um slit
4. Triple grating turnet
5. One entrance slit, two exit ports to accommodate two array detectors ( manual) : slit width variable from 10 $\mu$ m ( or less) to ~3mm; height upto 14mm ; detector flanges for detectors.
6. Gratings ( 3Nos.; size: 68mmx68mm) to optimally cover the wavelength range 200nm to 1700nm

### **Detectors**

#### 1. UV/VIS spectroscopy CCD (1No.)

1. CCD to cover 200nm to ~900nm with good quantum efficiency
2. Format : 1024 x 255, 26um pixels; active area size 26x6mm or more
3. Pixel well depth : greater than 390,000 electrons, dark current less than  $\sim 10^{-4}$  e-/pixel/sec.
4. Register well depth : 1M electrons or better
5. Peltier (TE) cooling with option of achieving -100C (or less) detector temperature
6. compatible to the above monochromator

#### 2. NIR spectroscopy photodetector array (1No.)

1. InGaAs detector to cover ~700nm to 1700nm
2. Format : 512 x1, 25um pixels,
3. dark current 20ke-/pixel/sec . or less
4. Quantum efficiency more than 80%
5. Peltier (TE) cooling with option of achieving -90C ( or less) detector temperature
6. compatible to the above monochromator

### Other requirements

- Both Monochromator and detectors should be controllable through USB port. Relevant controller software, drivers, electronics, cables should be provided. Relevant drivers for external programming ( such as Labview) should be provide.
- Minimum of 1 year warranty is required.

## 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

**09<sup>th</sup> September 2011**

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