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**Enquiry No: IITK/PHY/2017-2018/455**

**Enquiry Date: 27/04/2017**

**Closing Date: 12/05/2017**

Subject: Inviting sealed quotation for high resolution spectrometer system (for plasma spectroscopy) with accessories

Dear Madam/Sir,

Sealed Quotations are invited for a high resolution spectrometer system for plasma spectroscopy. The specifications of the spectrometer system are given below.

**Technical specifications:**

**A. Spectrometer**

Focal Length: 750 mm

Aperture: F/9.7

Magnification (Vertical @ centre of CCD): 1

Gratings: Interchangeable indexed triple turret

Slit width range (input): 10  $\mu$ m to 3.0 mm

Wavelength Accuracy: 0.03 nm

Wavelength Repeatability: 10 pm

USB communication

1800 l/mm, 265 nm peak, holographic grating

1200 l/mm grating, 500 nm blaze

Mirror

## **B. Detector**

Active pixels: 1024 x 255

Pixel size (W x H): 26 x 26  $\mu\text{m}$

Image area: 26.6 x 6.6 mm with 100% fill factor

System window type: UV-grade fused silica

Register well depth (typical): 1,000,000 e-

TE Maximum cooling: - 80 °C (air cooled), guaranteed - 100 °C (coolant chiller, coolant @ 10 °C), should be possible to add chiller at future date

Maximum spectra per sec: 88

Read Rates: 33 kHz, 50 kHz, 100 kHz

Read noise: As low as 4 e-

Dark Current: 0.0004 e-/pixel/sec at -100 C

Linearity: Better than 99 %

Digitization: 16 bit

USB based

### **Some additional points:**

1. UV/VIS fiber with adaptor, the fiber should be a bundle of 19 or more with ferrule termination at the spectrometer end to allow maximum signal coupling to the spectrometer.
2. Single software to control both spectrometer and CCD, both should be manufactured by the same original equipment manufacturer (OEM) to ensure tight integration.
3. OEM should be manufacturer of ICCD which can be coupled to the same spectrograph, datasheet for ICCD should be enclosed with the offer.
4. Please enclose authorization from the OEM. It is preferable that the OEM should have installed and supported several such spectroscopy systems in the past 5 years in India, please enclose references.

### **Terms and condition:**

1. Warranty for 24 months from date of installation.

2. Possibility of after-sale services in India.
3. Mode of delivery : CIP, IIT Kanpur, and the delivery should be made on or before three (3) months from the date of issue of purchase order.
4. Educational discount as applicable
5. **Important:** Technical and financial quotation should be sealed separately and put in a larger single envelope and sent by speed post to the address mentioned in the letter head. Soft copy of the quotation will not be accepted.
6. Quotation should carry proper certifications like authorization certificate, proprietary certificate, etc. (if applicable)
7. Please mention tender notice number on top of envelope.