

## NOTICE INVITING QUOTATION

Technical and price bids are invited for the purchase of a “Fluorescent Microscope” as per minimum specifications, terms and conditions given below.

### **Minimum Specifications for Fluorescent Microscope:**

#### **Research Microscope**

- Research Microscope for reflected light and transmitted light, with inbuilt 12V/100W illumination.
- Focus drive (coarse, medium and fine) and torque adjustment.
- Plan Acromat Objective set : 5x/0.12, 10x/0.25, 20x/0.40, 50x/0.75, 100x/0.85 and Phase contrast objectives : 20x/0.40 PH, 40x/0.65 PH, 100x/1.30 oil
- Harmonic Compensated Optical System
- Objective nosepiece with minimum 6 objectives and 1 to 100 X magnification.
- Minimum 4-fold illuminator for Reflected Light. Color-coded and centerable iris aperture and field diaphragm. Provision for polarizer/ analyzer
- Daylight filter, Grey filter & panchromatic green filter for reflected light and transmitted light; Brightfield reflector.
- Inbuilt Lamp housing with lamp mount for halogen lamp 12V 100W, with 1-lens collector and heat protection filter, 5 no. of additive halogen lamps
- XY-Stage: for transmitted and reflected lights
- Trinocular Phototube with fixed photo tube and beam splitter positions with different vis/phot slots: 0/100,50/50,100/0
- Harmonic Corrected Two nos. Focusable & Adjustable wide field Eyepiece 10x/22
- Color coded Universal Condenser for phase, brightfield and other techniques.

#### **Camera**

- Digital color high-sensitivity coded CCD camera specific for material and fluorescence microscopy with specifications: Grade Zero sensor, RGB mosaic colour filter, with Electronic global shutter/progressive scan readout shutter control, Minimum Resolution - 1.5 megapixel and Max. scaled resolution 3.3 megapixel or above, Minimum pixel size - 6.45  $\mu\text{m}$  x 6.45  $\mu\text{m}$ , colour depth minimum- 36 bit, A/D converter -minimum 12 bit dynamic range ,Minimum Quantum efficiency - Blue 470 nm 77%; Green 530 nm 73%; Red 600 nm 100%, speed - 35fps

#### **Software**

- The instrument should be software driven. Software control for individual features including size, shape, position, orientation and intensity parameters for multiple individual features or particles to be provided.
- System should be able to capture an image of large sample than microscope field of view while maintaining high resolution in three dimensional live image building application.
- Additional software for image overlay and movie capture.

**Fluorescence facility**

- Lamphousing for reflected light fluorescence, with centerable lamp mount for 100W mercury lamp, with heat protection filter.
- Narrow band Fluorescence filter for UV, Blue & green excitation and Quantum Dot Fluorescence Filter for QDots605(Ex 415-455, Em 618-633) & QDot 655 ( Ex 415-455, Em 648-663)

**Computer**

- Compatible Branded computer system with i5 or better processor, Window 7 professional, min. 2GB RAM , Hard Disk : 320GB or greater, Graphic Card : 1Gb nvidia, Monitor: LCD 20'', MS office 2007/2010 with Branded Laser colour printer should be supplied by the vendor along with the system.
- Microscope camera and software should be from same manufacturer.
- Dust cover for complete set.
- System should be upgradable and can be motorized in future.

**Terms & Conditions:**

1. The quotations must have validity of at least three months.
2. Quotation must include insurance and air-freight charges, delivery period of the items(CIF, New Delhi).
3. The products will be used for educational purposes. Any applicable academic institution discounts should be offered and stated clearly.
4. Detailed Brochures should accompany the offer.
5. If the bidder is an authorized dealer then the authorized Indian dealership certificate from the principles should be enclosed.
6. Warranty of the system must be given in the quotation.
7. Payment will be through irrevocable letter of Credit.
8. In case the items are proprietary products of the company, Proprietary item certificate from the manufacturer stating the same must be provided with the quotation.
9. Training / Installation should be provided.
10. Institute reserves the right to accept or reject any or all the quotations without assigning reasons thereof.

The technical and price bids should be kept in separate sealed cover marked as "technical" and "price bids" on the top of the envelopes. Both the envelopes should be kept inside a bigger envelope marked as "**Bids for Fluorescent Microscope**" with due date . The bids should be sent to Prof. S.K.Khare, Chemistry Dept. IIT Delhi, Hauz-Khas, New Delhi-110016 latest by **Thursday, 7<sup>th</sup> February, 2013, 5 PM.**

**Prof. S.K. Khare**  
**Chemistry Department**