## Enquiry no. CHM/PS/11-12/12 DATED 24/02/2012. (Extended DATE upto Monday 12<sup>th</sup> of March 20012.)

## **Technical Specification for the Fluorescence Correlation Spectrometer**

Sealed quotations have been invited by the undersigned and the last date for receiving the quotation is on Monday  $12^{\rm th}$  of March 2012(extended).

Sincerely,

Dr. Pratik Sen Assistant Professor Department of Chemistry Indian Institute of Technology Kanpur Kanpur 208 016, U.P., India

## Contact: Dr. Pratik Sen, Department of Chemistry, IIT Kanpur (psen@iitk.ac.in) Kanpur, PIN – 208 016, UP, India

- 1. Optical Microscope or cage system: Inverted Confocal having three external ports (right, left and back), Built-in Tube lens in one port, Turret of 5 or 6 positions, Three or more Dichroic holders
- 2. Microscope objective: 60X, NA1.2, Water immersion with correction collar
- 3. Detector: Single Photon Avalanche Photo Diode with Power supply, <250 dark counts/second, with FC-connector, Wavelength range 400 1000 nm or larger
- 4. Digital Correlator Card: Two in-port Hardware correlator, Capable of providing fluorescence fluctuations (for Pulse Height Analysis) as output signal along with online correlation curve.
- 5. Light Source: DPSS Laser @532 nm; power 50mW or higher with TEM00 mode, Diode laser @405 nm; power 100 mW or higher with Circular Beam (TEM00 mode)
- 6. Optics and Opto-mechanics: All necessary Opto-mechanics, All necessary optics Dichroic mirrors and Emission filters that fits into the Microscope holders Mirrors with flatness  $\lambda/8$ , Lenses, all with AR coating, Iris (6 nos.), ND filters (OD = 0.1 to 2 in steps of 0.2), 5 axes fiber positioner with FC-connector, Compatible Optics

and opto-mechanics for both the lasers should be quoted.

- 7. Optical fiber patch cords (1 meter or higher in length with both sides FC-connector)
- (a) Inner Dia. 25 micron
- (b) Inner Dia. 50 micron
- (c) Inner Dia. 100 micron
- 8. Table top and vibration isolation support (Optional): The optical table with vibration isolation legs and with pump (oil-free), Size: 6 feet by 4 feet (or similar metric dimension) with M6 screw holes at 25 mm grid, Flatness: +/- 0.1 mm over large distance
- 9. Computer: The quotation should include a complete PC/laptop set for data acquisition and company should also quote for a black and white laser printer