



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
**Powai, Mumbai 400076.**

**PR No. 1000028012 (Rfx No. 6100001199)**

**Detailed Technical Specifications for FLUORESCENCE SPECTROFLUORIMETER**

Light source	:	Xe lamp (150 W or better)
Monochromator	:	Holographic grating or better
Wavelength range	:	Ex/Em: Zero order, 200 - 850 nm
Sensitivity (RMS)	:	8000:1 or better
Resolution (Ex / Em)	:	1.0 nm (at 546.1 nm)
Band width (Ex / Em)	:	1, 2.5, 5, 10, 20, L5, L10 nm
Wavelength accuracy	:	±1.0 nm or better
Wavelength Repeatability	:	±0.3 nm or better
Wavelength scan speed (Ex : Em)	:	variable and max.60,000 nm/min
Detector	:	Ex: Silicon photodiode, Em: PMT
Photometric Range	:	-10,000 to +10,000
Sensitivity Selection	:	High, Medium, Low, Very Low, Manual, Auto SCS
Shutter Function	:	Standard (Automatic control)
Sample Compartment	:	10 mm rectangular cell holder, nitrogen purgeable
Recognition of Accessory	:	Standard, automatic
Measurement programs	:	Spectra measurement, Quantitative measurement, Fixed wavelength measurement, Time course measurement, 3D Spectra measurement, Absorbance measurement
Spectra correction program	:	Standard
Temperature Accessory	:	Water Cooled -10°C to 110°C
Polarizer and Anisotropy accessory	:	Standard (200 nm to 700nm)

**Software Analysis tools** including kinetic analysis, temperature curve fitting, and mathematics tools, Unlimited license to install, the data display software on other PC's to allow data inspection, analysis and presentation at the desktop must be include; Software should be periodically updated free of cost.

**Essential Accessories:** The system must be supplied with essential spares like syringes, tubing, protein cleaning solutions, filters, chiller units, all accessories for N<sub>2</sub> gas purging, and FL cuvettes: 5 cuvettes for 1 ml and 5 cuvettes for 0.15 ml sample to accommodate the lowest sample volume.

**Computers and accessories**

One Branded state-of-art Desktop PC from a reputed make (with a latest processor at least i5or i7, LED monitor at least 21" size, 8 GB RAM and 1 TB hard disk and preloaded with latest Operating System software. Online UPS 3kVA with minimum 30 minutes of backup

**Warranty:** Five years of comprehensive warranty must be included with application support and help in studying the protein structural analysis. Periodic calibration of instruments should be done.

Provide a list of 5 installations in Institutes of national importance and a list of engineers and application specialists with the organization.