



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

Reference (PR No. 100020792) RFx No.6100000771

Technical specification for Spectrofluorimeter

1. All reflective L-Format optics sample compartment with computer controlled 10 position excitation filter wheel with UV cut blue pass and blue cut green pass filters, reference channel excitation correction detector, single cuvette sample compartment for 10 mm quartz cuvette, manual filter holders for customer supplied filters, computer controlled 6 position emission filter wheel
2. Double excitation Czerny-Turner coma-corrected excitation and emission monochromators with triple grating turrets for extended wavelength selection, computer controlled excitation shutter and computer controlled slits
3. 450 watt xenon illuminator with all reflective collection optics.
4. Cooled PMT housing with computer controlled toggle between photon counting ,analog mode, TCSPC lifetimes or phosphorescence)
5. R928P photomultiplier tube.
6. Computer work station, mouse and monitor.
7. Phosphorescence lifetime measurement module, with variable high rep rate pulsed xenon source for excitation in the second entrance port of the excitation monochromator; Choice of light sources would be by a flipping mirror.
8. Cold finger dewar accessory (77 K)
9. Liquid nitrogen cooled InGaAs detector (800-1550nm) with appropriate electronics, optics and accessories.
10. Polarization accessory: L-format fully automated dual Glan-Thompson polarizers (250-2500nm).
11. Photoluminescence quantum yield accessory for solid, liquid, powder and thin films and small light sources, based on an external integrating sphere (wavelength range: 250-2500nm), connected to the instrument using optical fibers, included with the accessory. Required neutral density filters should be included.
12. At least five Neutral density filters, 50x50 mm, 0.03 - 3.0



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13. Solid sample holder for viewing front-face fluorescence of thin films, powders, pellets, paper, fibers, or microscopic slides. Should include variable alignment angle facility for signal optimization.
14. All filters required for smooth operation of the instrument.
15. Instrument should be supplied with 3 years warranty.