

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

Ref. PR No. 1000044187

Rfx. No. 6100001987

<u>Technical Specifications for Spectrofluorometer -1 No.</u>

Sr. No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1	Source	350 W		
	CW ozone-free xenon arc lamp			
2	Monochromators	Required		
	Czerny-Turner design with plane			
	gratings for optimized focus at all			
	wavelengths and minimum stray light			
3	Excitation Grating	1200 groove/mm		
	blazed at 330 nm			
4	Emission Grating	1200 groove/mm		
	blazed at 500 nm			
5	Bandpass	0 to 30 nm, continuously		
		adjustable		
6	Wavelength Accuracy	± 0.5 nm or better		
7	Integration Time	1 ms to 160 s		
8	Base Detector	185 to 900 nm, air-cooled		
	Photomultiplier R928P,	and stabilized		
9	Reference Detector	Required		
	UV-enhanced silicon photodiode			
10	Standard Filter Holders for	Required		
	Excitation and Emission Path			
	2" square filters can be added for any			
	specific use			
11	Sensitivity	10,000:1		
12	Steady State Reaction Kinetics	1 KHz to 0.02 Hz		
	Acquisition Rate			
13	Integrating Spheres for PLQY	external 150 mm sphere		
		with 2 quantities		

mm diameter sphere, or external 150 mm sphere 14 Filter holder with Filters included 15 Quartz cell 6 16 Solid Sample Holder 2 17 Thin Film Temperature dependent measurement assembly preferably 18 Software Software for the control of the instrument and data analyses with configurated computer+ Monitor 19 Training The quote should include cost of installation, acceptance tests, demonstrating performance, and operational training of 5 people. 20 Other requirements Required Availability of spare parts: The vendor has to guarantee that all the spares for the offered spectrofluorometer and attachments will be available for at least the next 10-15 years. Pre-installation requirement (electrical, humidity and gas, etc.) Should be mentioned along with the offer. 21 Power Supply + 6 KVA UPS Suitable UPS (true sinewave, online, one phaseout) for 1 hour of back up should be provided. All equipment should operate with 220 V, 50 Hz power supply. 22 Documentation Complete product manual must be provided, that covers the operation, basic troubleshooting, calibration procedure, and maintenance. 23 Warranty Required		Easy, quick change of either internal 80	
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