



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai - 400076

PR No. 1000037223

Rfx No. 6100001642

**Technical Specifications for Liquid Nitrogen Cryostat with Temperature Controller & Accessories (Qty-1)**

Sr. No.			Compliance (Yes/No)
1	<b><u>Basic Cryostat:</u></b>	<ol style="list-style-type: none"><li>1. Liquid Nitrogen (LN2) bath variable temperature optical cryostat.</li><li>2. Temperature range: 77K -300K.</li><li>3. Top loading cryostat with sample in exchange gas.</li><li>4. Sample should be changeable while cryostat is cold.</li><li>5. Sample space <math>\geq</math> 20mm.</li><li>6. Suitable sample holders for liquid cuvettes and thin films for measurement in both reflection and transmission geometries.</li><li>7. Should have 5 optical windows (4 radial and 1 axially positioned). The axial should be blanked for now and to be used in future.</li><li>8. N.A: f/1 with 15 mm diameter window aperture.</li><li>9. Windows should be user changeable.</li><li>10. 10-pin electrical wiring to the sample should be provided with feed through separate from that of sensors and heaters.</li><li>11. Stability +/- 0.1K, 15hr Hold Time at 77K (nominal)</li><li>12. Room temperature to base temperature &lt;20 min.</li><li>13. LN2 tank capacity <math>\geq</math> 1.2L</li><li>14. Weight should be &lt; 5Kgs</li></ol>	--



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2	<b><u>Temperature Controller:</u></b>	<ol style="list-style-type: none"><li>1) Controller should be of same make as cryostat.</li><li>2) Touch screen interface.</li><li>3) Upgradeable to at least 4 channel using expansion slots for additional sensor, heater, PID, Aux cards.</li><li>4) 80W per channel heater output.</li><li>5) Supports all standard sensor types.</li><li>6) Supports cryogen level meter cards. Ethernet, GPIB, Serial or USB interface.</li></ol>	
3	<b><u>Warranty</u></b>	1-year warranty for the entire system should be provided.	