

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
DEPARTMENT OF CHEMISTRY

DATED: 19/08/2013

No. IITK/CHM/JKB/2013/001

Kindly send us sealed quotations for the following items. Quotations should be addressed to **Dr. J. K. Bera, c/o. Head, Department of Chemistry, IIT Kanpur 208016**, and must reach on or before Monday, 05 September, 2013.

Items	Specifications
1. Ice Flake Machine (imported)	Production: Approximately 150 kg (24h), Ice Flake, Air-cooled. Storage bin: 100 Kg
2. Water Cooler	Production for 24 h Water temperature: Approximately 4°C Attachable with Filter and Reverse Osmosis
3. Hood for solvent still	Constant Bypass Type with approximate size: Working Area inside the hood: 1800 mm (width) × 850 mm (depth) × 600 mm Ht. Bottom to worktop) Height of Work Surface from ground: 600 mm
4. Fume Hood with Sink for Chemistry Lab	Constant Bypass Type, with approximate size. Working Area inside the hood: 1200 mm (width) X 850 mm (depth) X 900 mm Ht. Bottom to worktop) Height of Work Surface from ground: 900 mm
5. 4 °C Refrigerator (Imported)	Capacity: Approximately 380 L Temperature range: 1 – 10 °C Lock : Yes Defrost : Yes No. of lids/doors : 1 Type of door : Glass
6. -40 °C Freezer (Imported)	Capacity: 620 liters Inner door, adjustable rack, digital indicator, alarm for temperature variation, upright configuration.
7. -20 °C Freezer (Imported)	Capacity: 350 liters Inner door, adjustable rack, digital indicator, alarm for temperature variation, upright configuration.
8. Schlenk line with vacuum pumps	Schlenk manifold (four) with Vacuum pumps with catalyst column and heating arrangement.
9. Rotary Evaporator with heating bath.	Vertical condenser Rotation Speed: 20-250 rpm Heating bath volume: 4-5 litre Heating bath temperature: 20-95° C or higher

	<p>Temperature accuracy: $\pm 1\text{ }^{\circ}\text{C}$ One single power connection for the rotary evaporator and the heating bath is preferred.</p>
10. Recirculating chiller for rotary evaporator	<p>Temperature range within $-10\text{ }^{\circ}\text{C}$ to ambient temperature or higher Temperature accuracy $\pm 1\text{ }^{\circ}\text{C}$ Digital display. Compact size. Tank volume: minimum 3 litres Flow rate: minimum 2.5 litres/min</p>
11. Vacuum pump for Rotary Evaporator	<p>Two-stage diaphragm pump made of chemically resistant materials Preferred capacity: More than $1.5\text{ m}^3/\text{h}$ Final pressure: Less than 10 mbar</p>
12. Rotary Evaporator with recirculating chiller, vacuum pump and other required accessories as a single package.	<p>All the components have to be compatible with each other.</p> <p>Rotary Evaporator should be equipped with vertical condenser, manual lift, rotation speed of 20-250 rpm, a heating bath with a volume of 4-5 litres and preferably having a single power connection for the rotary evaporator and the heating bath.</p> <p>Recirculating chiller should have a working range of $-10\text{ }^{\circ}\text{C}$ to ambient temperature, a tank volume of minimum 3 litres, digital display and a preferred flow rate of 2.5 litres/min or higher</p> <p>Vacuum pump should be a two stage diaphragm pump with a final pressure less than 10 mbar</p>