SAVITRIBAI PHULE PUNE UNIVERSITY DEPARTMENT OF CHEMISTRY

परिशिष्ट 'क'

Ref. No. Enquiry / Quot/Chem/Store/20-21/ /07.01.2021

Quotations are invited for the sup on or before		to role in temperate		
	15.01.2021			i jarka .
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Sr. Description of No. Materials/Item/Work	Approximate Quantity	Rate Per unit	Amount (Rs.)	Remarks
TWO PORTS GLOVE BOX (REGENERATIVE) WITH ACCESSORI	01 NO			
(SPECIFICATIONS AS PER ATTACHE	D)			
Note : 1) Quotation validity atleast 9	90 days from due date.			
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Two ports Glove box (regenerative) with accessories:

The quotations are invited (in two separate sealed-envelops; technical and commercial bids) from internationally acclaimed manufacturers viz. M-Braun, GS, Ex-Vigor Tech, Jacomax etc. having several decades of experience in designing and manufacturing of glove boxes.

Purpose: to handle moisture and oxygen sensitive materials and solvents in an inert (Ar or N2) atmosphere.

Applications: deposition of thin films for solar cells, Li and other moisture sensitive metals, To electrochemical measurements in dry organic solvents.

Glovebox technical specification:

	Specification		Specifications to be filled by Vender
1.	Glove box	items	
(a)	(Size dimension) (HxLxD)mm Dimensions are indicative	900-950 (H) x1100-1300(L) x700-800(D)	
(b)	Body	Stainless Steel S304	
(c)	Surface and glass coating	chemical and scratch resistance;	
	Glass Panel	Laminated glass	
(d)	Leak rate	At least 0.05V% /hour ISO 10648-2 procedure	
(e)	Glove assembly	2 Butyl gloves at least 0.4mm diameter O ring sealed with port cover.	
(f)	Feed through	(a) Cable glands quantity 1 (2-3cm Exact diameter will be shared in purchase order) to insert thick circular cables. (b) 4x banana quantity 1 (c) 240V Electrical feed through) to connect gazettes like balance, hot plates, spin coater etc. x1	
(g)	Light and shelves	LED lights:	Part 1



	Specification		Specifications to be filled by Vender
		3 height adjustable SS shelves Approx. size: 1000mm(L)x 220mm)	.,
(h)	Dust filters	Dust filter 0.3um or better HEPA at inlet of blower Quantity 1	
(i)	Box pressure control	Fully Automatic Programable Logic Controller (PLC) pressure users define. comfort valve or Foot pedal	
2.	Main Ante Chamber		
(a)	Dimension	Installed at right-side. Cylindrical 370-400mm (D)x600mm (L) SS (2.5mm)	
(b)	sliding tray	SS	
(c)	Door	Aluminium Anodize (~10mm)	
(d)	Pressure gauge	Analogue or digital	
(e)	Handling	Manual	
(f)	Vacuum pump	Rotary type or better Oil mist filter, automatic gas ballast control Evacuation rate minimum 250-300 L min ⁻¹	
3.	Mini Ante chamber	Optional or Box should have a provision to add appropriate mini ante chamber in future.	
4	Gas purification		
	Circulation Blower Capacity	20-60 m ³ hour ⁻¹	
(a)	Close-loop automatic recirculation	Automatic close loop: circulation should be controlled by O2/H2O sensors Circulation should start automatically if O2 and moisture levels exceed. Threshold O2 and H2O levels in the box: less than 1.0 ppm	

Pune-7.

	Specification		Specifications to be filled by Vender
(b)	Purifier column capacity	@O2 removal 20-30L and water ~1Kg	
5	Solvent adsorbent	In line solvent adsorbent activated charcoal or equivalent at least 1.0 kg.	
6	Controlled panel	PLC 7" color touch screen monitor	
7	Working gas	N2 and Ar	
	Sensors	O2 and Moisture sensors in close loop with PLC and with real time display of their levels on screen.	
8	Regeneration of catalyst	Automatic with H2/N2 or H2/Ar mixture	7
9	Warranty	Minimum 1year	
10	Important Note:	Globally acclaimed companies having reputation in designing and manufacturing of glove boxes for several decades will be given the preferences.	

Shunbhay

HEAD
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