# **TENDER INVITATION NOTICE (Re - Tender)**

## Department of Chemistry University of Kerala Kariavattom campus, Thiruvananthapuram

#### Last date of submission of Quotation-09/02/2024

#### Quotation No: DC/ST/32/Eq./23-24 dt. 02/02/2024

Sealed Competitive Quotations are invited for the supply, installation, testing and commissioning of the following equipment at the Department of Chemistry, University of Kerala, Kariavattom, Thiruvananthapuram. The specifications required are given below:

Instrument	Specifications	
100mW, 980nm Alignment Laser Diode	• Output Power (mW):100	
	• <b>Operating temperature</b> (°C): -10-50	
	• Wavelength tolerance: ±5	
Quantity: 1 No.	• <b>Modulation Frequency</b> (kHz):0 – 10	
	• Color: infrared	
	• Wavelength (nm):980.00	
	• <b>Beam Diameter</b> (mm):2 × 4 typical	
	• Length (mm):36.00	
	• Operating Voltage (V): 5	
	• Beam divergence (mrad):<6.0	
	• Laser class (CDRH): IIIb	
	Focus Adjustable	
	• TTL Modulation up to 10kHz	
25mW,	• Output Power (mW):25	
808nm Alignment Laser Diode	• <b>Operating temperature</b> (°C): -10-50	
	• Wavelength tolerance: ±5	
	Instrument 100mW, 980nm Alignment Laser Diode Quantity: 1 No. 25mW, 808nm Alignment Laser Diode	InstrumentSpecifications100mW, 980nm Alignment Laser Diode• Output Power (mW):100Quantity: 1 No.• Operating temperature(°C): -10-50Quantity: 1 No.• Modulation Frequency (kHz):0 – 10• Color: infrared • Wavelength (nm):980.00 • Beam Diameter (mm):2 × 4 typical • Length (nm):36.00 • Operating Voltage (V): 5 • Beam divergence (mrad):<6.0 • Laser class (CDRH): IIIb • Focus Adjustable • TTL Modulation up to 10kHz25mW, 808nm Alignment Laser Diode• Output Power (mW):25 • Operating temperature(°C): -10-50 • Wavelength tolerance: ±5

#### **INSTRUMENTS FOR RE-TENDER**

	Quantity: 1 No.	• Modulation Frequency (kHz):0 – 10
		• Color: infrared
		• Wavelength (nm):808.00
		• Beam Diameter (mm):2×4 typical
		• Length (mm):36.00
		Operating Voltage: 5
		• Beam divergence (mrad):<5.0
		• Laser class (CDRH): IIIb
		Focus Adjustable
3.	Spin coater	• A microprocessor-controlled Programmable system,
	Quantity: 1 No.	• With a Large 8 Teflon (PTFE coated SS substrate
		bowl)
		• Should have a built in 100 multi-Program editable
		programs.
		• It has a PMMA Transparent lid with IR sensor
		protection for bowl.
		• Oil free vacuum Pump <sup>1</sup> / <sub>4</sub> HP, 1440 RPM, single
		phase; 75 LPM; 650 mm Hg ,220 v; 50 Hz
		• Starter kit consists of ,8mm OD PU tubing 2 mtr;
		• Vacuum pump silencer, Power cord.
		• Actuator: a PID based speed Controlled DC motor;
		• Spinning speed should be up to 10,000 RPM;
		Multisegment RPM / Time programming
		• Speed Programmable: 200- 10,000 RPM.
		• Spinning acceleration - 100 - 3000 rpm /sec.
		• 100 preset programs can be saved in the system
		memory.
		• Speed accuracy - $\pm 0.1 \%$
		• Time Prog : 10 - 1200 secs.
		• Display -2 Line alphanumeric LCD display.
		• Spinning disk size - 75mm Std with provision up to
		100 mm
		• Transparent Lid with sensor protection facility.

		• Suitable for substrates sizes: 5 mm to 75mm & amp;
		100 mm.
		• Sample Spill over drainage should be offered.
		• Should have N <sub>2</sub> Gas purging facility as standard.
		• Safety fault alert for Motor and integrated ON/OFF
		for vacuum pump.
		• Online iR based heater / Curer for homogeneous
		coating of substrate plates.
		• Weight 8 kgs.
		• Dimensions - 300 x 365 x 300 mm.
		• Power - 220/230V Ac. 50Hz
		• Standard accessories like 2 metre PU tube of 8 mm
		OD with Nipple.
4	Refrigerator	• Upto 12 hours of cooling retention even during power
	for laboratory purpose	cuts
		• Total capacity – 330 L
	Quantity: 1 No.	• Freezer capacity- 95 L & Cooler capacity – 235 L
		• No. of doors- 2
		• Refrigerant type – R134a
		• Type- Top freezer
		• Energy Efficiency- from 3 to 5 stars
		• Annual Energy Consumption- Below 244 Kilowatt
		Hours
		• High Freezer Capacity
		Installation Type- Freestanding
		• Special Features- Inverter, Stabilizer Free Operation,
		Door Lock
		• Voltage- 220-240 Volts
		• Defrost System- Frost Free
		• Indoor dimensions (W*D*H) – 620*630*1645 mm or
		better
		At least 2 year warranty, Included Components- Ice Tray,
		Key, User manual, Warranty card

5	Digital Melting	Temperature range: ambient to 350 °C	
	Point Apparatus	Resolution: 1 °C	
	(Quantity No. 1)	Display: 3 digit LED display	
		Heating control: Microprocessor controlled closed loop	
		PID, Automatic ramp rate of heating	
		Warranty: 1 year	

### **Terms and Conditions:**

- Quotes should be inclusive of cost, freight, taxes etc. and should be delivered at the Department of Chemistry, University of Kerala, Kariavattom
- 2. Pre-installation requirements should be correctly mentioned and a user list should be provided.
- 3. Incomplete & conditional quotations and quotations received after the due date will be summarily rejected without assigning any reasons thereof.
- 4. Quotation submitted shall remain valid for the current financial year.
- 5. The undersigned reserves the right to reject or accept the quotation without assigning any reason.
- Validity: The Bid will be valid for 120 days from its date of opening. Further extension can be done by mutual consent.
- 7. **Installation and Commissioning**: The items shall be installed and commissioned at Department of Chemistry, University of Kerala, Kariavattom Campus. All incidental expenses should be borne by the supplier.
- 8. **Payment:** The University will release the payment only after inspecting the equipment and satisfy that the supply is as per the requirements. The payment will be made after successful completion of the supply and producing invoice in duplicate.

- 9. Warranty/Guarantee: The supplier shall guarantee to repair/replace the items or its part –if found defective within the warranty period of 02 years. The entire expenditure for repair/ replace of the item in this regard shall be borne by the supplier.
- 10.Service facility: Supplier should mention their details of service setup and manpower in Trivandrum who are responsible for after sales service.
- 11.In case of the dispute arises, the decision of University authority shall be final and binding on bidders.
- 12.General rules relating to the purchase of materials/equipment will also applicable to this tender.
- 13. Those firms who are interested to quote more than one instrument should sent individual quotations for each item separately.
- 14. Catalogue of the quoted instrument and images are **mandatory**.
- 15. Those who are interested should send their bid in a sealed cover superscribed with "Quotation for Ref. No: (......)"
  Equipment Name: (.....)" and addressed to The Head, Department of Chemistry, University of Kerala, Kariavattom Campus, 695581, Kerala.

Kindly submit lowest quotes on or before 09.02.2024, 4. 30 P M.

### Sd/-

Dr. Suneesh C. V. Assistant Professor & Head