

# Centre for Renewable Energy and Materials

Department of Chemistry Building

University of Kerala,

Kariavattom, Thiruvananthapuram-695581

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## QUOTATION NOTICE

Competitive quotations are invited from reputed firms / manufactures for the supply, installation and commissioning of the following instruments / equipments as detailed below.

Tender Notification Date	: 23/10/2020
Last Date of Issuing Tender Document	: 09/11/2020
Last Date of Receiving Tender/Bid Closing	: 09/11/2020
Date and Time of Opening Tender	: 09/11/2020, 3.00 pm

**Documents to be Submitted:** Data sheet of the items and Compliance statement, Details of warranty, Address and details of the firm, Financial bid and any other relevant information.

### Item No: 1

**Ref. No. CREM/Eq/PUR/10/2020**

**Equipment Name: Centrifuge machine for separation of component parts**

**Quantity: 1 No.**

### Technical Specifications

Rotor	: 12 x 15 ml, different rotors usable, delivers up to 4000RPM
Time Setting	: 50 sec to 99 mins & Infinite Mode
Ramp	: Adjustable
Speed selection	: Minimum 5
RCF	: 3144 x g (Fixed Angle)
Motor	: Brushless DC Motor
Dimension	: 475 x 585 x 325 mm
Features	: Digital Display, Imbalance Detection, Lid Lock Safety, Automatic Lid Open after the work, 9 Acceleration and 9 Deceleration modes.

**Item No: 2**

**Ref. No. CREM/Eq/PUR/11/2020**

**Equipment Name: Hot Air Oven**

**Quantity: 1 No.**

**Technical Specifications**

Capacity	: 90 Litre
Temp range	: +10 °C to 250 °C
No. of Shelves	: 2, Height adjustable
Door	: In-built glass window
PID temperature controller	: Yes
Alarms and auto Tuning	: Yes
Material	: Stainless Steel (Inner), Epoxy Coated (Outer)
Features	: Automatic cut off of heater and blower when door opened, Solid and plain bottom without electricals, Seamless round cornered edge of internal chamber

**Item No: 3**

**Ref. No. CREM/Eq/PUR/12/2020**

**Equipment Name: Vacuum Oven (with Vacuum Pump)**

**Quantity: 1 No.**

**Technical Specifications**

Capacity	: 40 Litre
Temperature Range	: Upto 250 °C, ±2 °C Accuracy
Pump	: Oil free
Max. Vacuum	: 27" Hg
Pressure	: 55 PSI
Max. Flow	: 45 Ltrs/Min
Motor	: HP, ¼
Features	: Imported Hydraulic Thermostat, Double Walled, Noiseless performance

**Item No: 4**

**Ref. No. CREM/Eq/PUR/13/2020**

**Equipment Name: Electronic balance**

**Quantity: 1 No.**

**Technical Specifications**

Display	: LCD/LED,
Readability	: 0. 001 g
Repeatability	: ± 001 g
Linearity	: ± 002 g
Temperature	: 10 °C to 40 °C
Maximum capacity	: 200 g
Weighing plate	: Stainless steel
Diameter of plate	: 90 mm
Power	: Input AC 100 -240 V, 50-60 Hz/ Output DC 7.5 V
Features	: Glass windshield with sliding doors, Maximum 3 kg weight.

**Item No: 5**

**Ref. No. CREM/Eq/PUR/14/2020**

**Equipment Name: Compound Microscope for biological purpose**

**Quantity: 1 No.**

**Technical Specifications**

Magnification	: 100-1000X
Objectives	: Achromatic, parfocal and parcentric 4X - 10X- 40X SL and 100X SL
Oil immersion	: Yes
Observation Head	: Binocular, 45° inclination, Rotatable through 360°, fixed in any direction
Nosepiece	: Quadruple revolving with accurate centring and positive click stops
Eyepiece	: Wide field WF 10X -20Xmm
Stage	: Focusable with Iris diaphragm and slider slot
Condenser	: Yes
Coarse adjustments	: Yes
Illumination	: LED/halogen bulb, Mirror attachment

**Item No: 6**

**Ref. No. CREM/Eq/PUR/15/2020**

**Equipment Name: Portable Automatic Autoclave with Digital Display**

**Quantity: 1 No.**

**Technical Specifications**

Capacity : 10/20 litres  
Temperature : 105-135 °C  
Pressure : 15/16 Psi  
Material : Stainless steel/Aluminium  
Power : AC 220 V / 50 Hz  
Electric Heating : Yes  
Optional Accessories : Digital temperature indicator, Sterilization indicator, Buzzer, Low water sensor, Low water cut-off device, Containers and baskets, Aluminium basket with handle, Stainless Steel Wire Basket, Plastic Disinfectant Tray  
Features : CE Marked Pressure Valves, Lid Lock, Steam and vacuum release valve, Auto electric cut off

**Item No: 7**

**Ref. No. CREM/Eq/PUR/16/2020**

**Equipment Name: Digital Camera**

**Quantity: 1 No.**

**Technical Specifications**

Brand : Canon  
Model : Canon Powershot 3071C001, 2018  
Dimensions : 11.68 x 12.7 x 9.14 cm, 615.18 Grams  
Battery : Lithium ion, Rechargeable  
Hardware Interface : AV Port  
Mounting Hardware : Camera, Battery Charger, Camera Case, AC Cable (IN), Printed Matter Unit  
Display : 3 Inches, LCD  
Image Stabilization : Yes, Optical  
Max Resolution : 20.3 MP  
Lens Type : Wide Angle

Self Timer : Yes  
Features : 10 fps Continuous Shooting Speed, Bluetooth, Wi-Fi, Electronic  
Viewfinder Type

**Item No: 8**

**Ref. No. CREM/Eq/PUR/17/2020**

**Equipment Name: Ceramic top magnetic stirrer with hotplate**

**Quantity: 1 No.**

**Technical Specifications**

Capacity : 9 Litres  
Plate material : Ceramic Coated SS  
Heater Temperature : Ambient to 300<sup>0</sup>C  
Platform : 26 x 26 cm  
Variable Speed : 200-2200 RPM in steps of 10 RPM  
Run Time : 1-999 mins & infinite  
Set-up plate dimensions: 140 mm  
Protection Class : IP 21  
Features : DC motor, Digital display, PT-1000 probe temperature of medium

**Item No: 9**

**Ref. No. CREM/Eq/PUR/18/2020**

**Equipment Name: Reference Detector for intensity verification For A1 light line Solar  
Simulator**

**Quantity: 1 No.**

**Technical Specifications**

Spectral region & range : NIR, UV, Visible; 190 -1100 nm  
Detector material : Silicon  
Detector type : Solid state  
NEP : < 8.10 x 10<sup>-15</sup>W/Hz<sup>1/2</sup>  
Active area : 2.5 mm square  
Responsivity : @200nm 0.12 A/W Typical (0.10 minimum), Peak @960nm  
0.5 A/W  
Features : DC coupled, Single channel, Calibrated Isc for 1 sun to be provided  
for measuring the intensity

**Tender Inviting Authority:** Director, Centre for Renewable Energy and Materials, University of Kerala, Kariavattom Campus, Thiruvananthapuram, Kerala-695581.

**Terms and Conditions**

1. Incomplete & conditional quotations and quotations received after the due date will be summarily rejected without assigning any reasons thereof.
2. The Bidder shall quote the price in clear terms and the specification of products. The rates quoted must be inclusive of all taxes, cost of supply at the site, warranty and installation charges etc.
3. The price should be quoted only in Indian rupees. The bid shall be typed and signed by the bidder.
4. All the documents mentioned above shall be submitted without fail.
5. **Validity:** The Bid will be valid for 90 days from its date of opening. Further extension can be done by mutual consent.
6. **Delivery:** The item should be delivered at the Centre for Renewable Energy and Materials, University of Kerala, Kariavattom Campus.
7. **Installation and commissioning:** The items shall be installed and commissioned at the Centre for Renewable Energy and Materials, 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. 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.

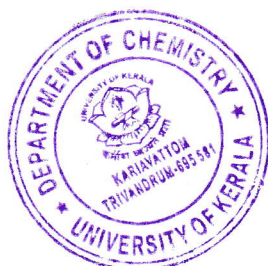
12. The undersigned reserves the right to reject or accept any or all the tenders received fully or partly without assigning any reason thereof.

13. General rules relating to the purchase of materials/equipment will also applicable to this tender.

14. Those who are interested should send their bid in a sealed cover superscribed with **“Quotation for Ref. No: (.....) Equipment Name: (.....)”** and addressed to The Director, Centre for Renewable Energy and Materials, Department of Chemistry Building, University of Kerala, Kariavattom Campus, 695581, Thiruvananthapuram, Kerala.

15. Those firms who are interested to quote more than one instrument should sent individual quotations for each item separately.

16. The bids shall be opened at the office of the Director, Centre for Renewable Energy and Materials, University of Kerala, Kariavattom Campus on the Date mentioned above. If the above date of opening tender happens to be on a holiday or due to any other valid reason, the tender opening process will be done on the next working day or the day fixed by the undersigned.



*J. / 17/10/20*  
21/10/20

Hon. Director

Centre for Renewable Energy and Materials

University of Kerala

**S.M.A. SHIBLI**  
Professor  
Department of Chemistry  
University of Kerala  
Thiruvananthapuram - 695 581

**Hon. Director**  
Centre for Renewable Energy and Materials  
University of Kerala, Kariavattom Campus  
Thiruvananthapuram - 695 581