Indian Institute of Technology, Kanpur
Department of Biological Sciences& Bioengineering

Tender Documents

Sub: ENQUIRY LETTER FOR CO2 INCUBATOR

Tender Enquiry Number: IITK/BSBE/DKD/2021-22/NC-15 **Enquiry Date: 10.11.2021**
Closing Date: 20.11.2021 **Opening Date: 22.11.2021**

Quotations are invited for the above mentioned Subject as per the technical specifications given below:

SPECIFICATIONS

1. Should have at least 170 L of internal capacity.
2. Temperature management of at least 4oC above ambient to 50^0C with control increment of 0.1°C
3. Temperature accuracy should be + 0.4°C at 37°C as per 27 points in the chamber according to German norm DIN 12880* and ambient 22°C, Temperature stability of + 0.1°C at 37°C and ambient 22°C, and Temperature uniformity of + 0.3°C at 37°C and ambient 22°C
4. CO2 gas range should be at least 0.1 – 20% with control increment of 0.1%, accuracy should be + 0.3% at the specified Relative Humidity (RH) at 37°C and ambient 22°C, stability of + 0.1% at 37°C and ambient 22°C and gas uniformity of + 0.1% at 37°C and ambient 22°C across the chamber.
5. CO2 recovery rate of at least of 6 min after door opening and closing event to attain 5% CO2.
6. The input gas pressure required should be 0.1 MPa (1 bar, 14.4 psi); operational gas pressure requirement range should be 0.05 -0.15 MPa (0.5 – 1.5 bar, 7.2 -21.8 psi). The gas tubing should have inner diameter of 6.5 mm and outer diameter of 10 mm
7. Should have optional High-Temperature Disinfection [HTD] of at least 140°C for 2 hours. Entire HTD cycle [including the time for warming up and cooling down to incubation temperature (37°C)] should not take more than 14 hours.
8. The system should have BMS relays built in and option to incorporate onto Data monitoring and documentations modules.
9. The door hinges, associated cable and other accessories should be robust and stringently tested. *
10. Should have a large backlit display for control of temperature and alarms
11. Should have separate single inner glass door for monitoring of samples without disturbing conditions of the chamber.
12. Should come with an inline pressure regulator to ensure less gas consumption and prevent overshooting of pressure which shortens life span of incubator.
13. The Inner chamber should be formed from single stainless-steel sheet with deep-drawn and seamless design with no corners, welds or joints for higher capacity and ease of cleaning.
14. Should have six-sided direct heating elements to ensure even distribution of heat throughout the entire incubator chamber.
15. Should come with a removable humidity tray for easy cleaning and refilling of distilled water.
16. Should be “fan less” design to reduce chance of contamination, reduce noise level, minimum air turbulence and bigger usable capacity.

17. Should have state of the art Dual Channel Infra-Red (IR); NDIR type CO2 sensor with auto-calibration feature to ensure accuracy of sensor automatically and should withstand at least 180^{o}C during high temperature disinfection.
18. The CO2 IR sensor should have a long-life.
19. The incubator should come with standard 3 perforated stainless-steel shelves;
20. Should have optional building management system relays.
21. Should have 02 Nos. Access ports at the back of the chamber to allow for external probes, etc., for third party monitoring of chamber conditions.
22. Should conform to CE certification standards. And with at least one year warranty.

Note: The Quotation should reach the undersigned on Or Before 5 Pm on a 20th November 2021

Indentor Details:
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Terms and Conditions:

1. Quotation Should Be offred through email (**dkdas@iitk.ac.in**)
2. Maximum discount should be offered.
3. Quotations should be valid for minimum 90 days
4. Submitted the complete bank details.
5. Delivery period will be 6-8 weeks after receipt of purchase order.
6. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
7. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
8. Manufacturer authorization certificate from principal company is required if you are a local supplier
9. Include Preparatory item certificate if applicable.
10. The Institute reserves the right of accepting or rejecting any quotation without assigning any reason thereof.
11. All prices should be mentioned F.O.B./CIP/CIF New Delhi or Destination IIT Kanpur.
12. Payment Termes: 100% After Supply the materials.
13. Bidder clearly mention contact details with address and email ID.

Signature
(Dr. Dibyendu Kumar Das)