

**Department of Chemical Engineering  
IIT Kanpur**

**Reference: NV/CHE/01 dated August 1, 2013**

**SPECIFICATIONS FOR CO<sub>2</sub> INCUBATOR**

- The incubator should have a culture space of 1.4 cuft. usable chamber capacity, vertically stackable.
- It should readily be installed in biological safety cabinet.
- Direct heat temperature management design with 6 heated sides including inner glass door, providing temperature uniformity of +/- 0.1°C for gradient-free culturing conditions, without troublesome condensation
- High quality stainless steel culture chamber and interior components, including 4 shelves, constructed of corrosion resistant stainless steel with rounded corners, to simplify cleaning and decontamination practices, minimizing potential for unwanted contamination.
- It should have microprocessor based control electronics easy to operate 3 button membrane touchpad for entering temperature, CO<sub>2</sub>, alarm, calibration and diagnostic function data.
- The incubator should incorporate a bright, easy to read blue vacuum fluorescent display.
- A heated, removable stainless steel humidity water pan should be provided, generating high RH values up to 95%, with rapid recovery rates resulting from direct heating, to promote improved culture growth and prevent desiccation.
- RS-485 digital signal outputs for CO<sub>2</sub> and temperature performance information, to enable convenient data capture with adjustable audible and visual alarm functions should be provided to monitor critical operational parameters.
- The unit should be UL (USA), CUL (Canada) and CE (Europe) certified.
- The unit should have provision to fix Heat Resistant HEPA filter which need not to be removed during Heat Sterilization cycle of 140°C for 12 hours while up gradation.
- The system should have provision for Built-in preventive maintenance system with adjustable timeframe to notifies user when it's time to replace the filter and Snap fit in-chamber HEPA filter should be easily removed without tools during up gradation.

Please submit quotation in a sealed envelope (separate for technical and commercial offer) to the undersigned by 5 PM on August 9 at the following address:

Dr. Nishith Verma  
Professor and Head - Chemical Engineering  
Department of Chemical Engineering  
Indian Institute of Technology Kanpur  
Kanpur - 208016 (India)  
(91) (512) 2596124/7704 (Phone)  
(91) (512) 2590104 (Fax)  
9839 195854 (personal mobile)  
[nishith@iitk.ac.in](mailto:nishith@iitk.ac.in) (email)