

**Department of Mechanical Engineering
Indian Institute of Technology, Kanpur**

IITK/ME/2012-2013 /SB 03

Date: 13-08-12

Sealed Quotation for following term:

Opening date: 13-08-12

Closing date: 18/08/2012

Subject : Purchase of setup for testing of gas-sensing elements.

The detailed specifications are mentioned below.

1. Vacuum chamber size 300 mm dia. , height 200 mm open end with top and bottom plate made of SS with electro-polishing and TIG welded top and bottom flanges.
2. Should have the following provisions:
Vacuum connection, vacuum gauge, heater feed through, thermocouple feed through, gas feed through and multiline feed through, voltage and current measurement connections atleast four.
3. Direct drive rotary vacuum pump pumping with capacity 200lit. /min with anti-suck back facility to avoid back oil that can achieve a vacuum level of 10^{-3} Torr or more.
5. Pirani vacuum gauge with power supply to read the vacuum.
6. On- off valve with provision to throttle gas flow.
7. Heater assembly with provision to control temperature from atmosphere to maximum 800 C with PID temperature controller
8. Programmable power supply – 100 Volt to + 100 volt with varying ramp and maximum current rating 5 milli-amperes with computer, monitor and printer to measure current and voltage characteristics along with a stand for the whole setup.

Form

Dr. Shantanu Bhattacharya (Ph.D.)
Associate Professor
Department of Mechanical Engineering
Indian Institute of Technology, Kanpur