INDIAN INSTITUTE OF TECHNOLOGY, DELHI **Department of Chemical Engineering**

Final Due Date: 04-02-2013 Date of Submission: 18-01-2013

Reference No.: 2013/CHE/SR/SONI02

Department of Chemical Engineering wishes to purchase an ultra-sonicator (probe type) unit as per the specifications given below. Technical specifications and financial offer (in a single sealed envelope with "Quotation for Ultra-Sonicator (2013/CHE/SR/SONI02)" superscribed on it) must reach the Department Office by 5:00 PM on 04.02.2013.

The sealed envelope containing the sealed technical and financial bids (each in individual sealed envelopes) should be addressed to the undersigned.

Specifications and Desired Features:

- Ultra-sonicator to sonicate an oil water mixture of volume not less than 350ml. The sample needs to be sonicated for (approximately) five hours. The amplitude and frequency required should be such that the drop size of the resulting emulsion is in the range of 2-100 microns.
- Please provide the details of the sonication probe like probe diameter and volume that it can sonicate. Vendor should provide a guarantee that the probe will not erode when used for a single five hours period or in successive applications.
- The mode of operation should be such that over-heating of the probe is minimized.
- Cooling arrangement for the sample during sonication should be provided.
- Other typical accessories like the sound protection box, stand, timer etc. should be mentioned.
- Please specify wattage and frequency of sonication (specify ranges if applicable).
- Please specify pulse and amplitude of sonication ((specify ranges if applicable).

Terms and Conditions:

- Ouote should be CIF, New Delhi.
- Order must be delivered and installed within 4 weeks of receipt of order (alternatively, provide delivery schedule).
- Validity of quotation must be at least one month.
- Payment will be made on satisfactory installation and operation, within 15 days of
- successful installation and operation.
- Warranty conditions should be clearly specified.

Prof. Shantanu Roy 18/19/2013 Dept. of Chemical Engineering

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