INDIAN INSTITUTE OF TECHNOLOGY, DELHI

NOTICE INVITING QUOTATIONS

25th Oct. 2011

Sub: Purchase of a Tensiometer

Sealed quotations are invited for the purchase of a 'Tensiometer' with the following features

1) Automatic measurements of interfacial tension and surface tension of liquids with:

   Tension range and resolution: 1 to 1000 mN/m and 0.001mN/m

   Sample stage's traverse range, resolution and speed: 70mm & above; 0.1micro-metre; and 0.09 to 500 mm/min (Programmable)

   Operating temperature: 10 to 130˚C or wider range

   Measurement of static and temperature dependent surface & interfacial tensions of / and/or between liquids using Du Nouy ring.

   Measuring methods: Ring/wire hoop, Plate, Wilhelmy plate, etc.

   Software for control of test, measurement and analysis

   Compliance with standard test methods: ASTM D 0971-91 (for interfacial tension of oil against water by the ring method; ASTM D 1331-56 (for surface and interfacial tension of solutions of surface active agents); ASTM D 1590-60 (for surface tension of water); ISO 6295 (Interfacial tension of oil against water)

   Accessories: sample vessels, platinum plates, rings, thermal chamber, and built-in magnetic stirrer, built in thermometer, keyboard and any other required to perform the above measurements.

   Preferable: Built in ionizer to discharge static charges from sample

2) Dynamic contact angle measurement on solids, fibre bundles and powder and sorption studies on fibre bundle and powders with:

   Weighing range, resolution, data rate and calibration: 210 g; 10 micro-gram; 50 Hz; & automatic

   Software for control of test, measurement, analysis and calculation of surface free energy of solids and its polar and dispersive parts

   Dynamic Wilhelmy method to measure advancing and receding contact angles on solids

   Powder contact angle/ Modified Washburn method for dynamic contact angle and sorption studies on fibre bundle and powders

Accessories: sample holders (solids, powders, fibre bundles, foil/film etc.), 1000 pieces of filter paper and any other required to perform the above measurements.

Temperature measurement with:

Range and resolution: -60 to 450˚C & 0.01˚ C

3) Density measurement of liquids with:

Range 0.5 to 2.0 g/cc; more range is preferable

4) All accessories to connect the system to PC for data acquisition

TERMS & CONDITIONS:

1) Please submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as "Technical Bid" and "Financial Bid". Both the sealed envelopes should be put in a single envelope sealed and marked as "Quotations for TENSIOMETER "due on 14th November 2011". The quote should reach the following address on or before 14th November 2011 up to 5.00 PM.

   Dr. R. S. Rengasamy

   Department of Textile Technology

   Indian Institute of Technology – Delhi (IIT Delhi)

   Hauz Khas, New Delhi – 110016

2) Please quote prices FOB, inclusive of installation charges.
3) Quote can be in Indian Rupees or in international currency and should be valid for at least three months.
4) Attach all the technical literature.
5) Please provide a list of similar installations done in Research Institutes/Universities in India and abroad with complete contact address of the clients.
6) Please specify the maximum warranty period.
7) Cost of installation and training of staff at IIT Delhi for at least 4 working days should be included.
8) If the quote is being submitted by the representative of the Principals, a valid Agency-ship /Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of the Principals should be enclosed.
9) Delivery period should be specified.
10) If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating "certified that ---------- is a proprietary item of M/s. ---- ------- and no other manufacturer make these items".
11) Payment will be through Letter of Credit (L.C.).