CENTRE FOR POLYMER SCIENCE AND ENGINEERING

Ref. IITD/CPSE/Feb Date: 1.2.2013

Notice Inviting Quotations for DSC

Manufacturers of quality thermal characterization equipments are invited to quote for the supply of a **DSC.** The equipment should strictly adhere to the specifications described below. Quotations should include (i) technical and (ii) financial bids separately and be put in separate sealed envelopes and placed together in a sealed outer envelope.

Specifications of Differential Scanning Calorimeter (DSC)

DSC Type : Modulated differential scanning calorimeter
Measurement Technology : Heat Flux Technology.
Software : Suitable to run MDSC and analyze the samples.
DSC Cell : Fixed position
Temperature Range : --85°C to 700 °C with software controlled cooling accessories
Cooling System : Suitable Cooling System
Gas Flow : Mass Flow Controller (range 5ml/min to 200 ml/min) for gas switching.
Temperature Accuracy : ± 0.2°C
Temperature Precision : ± 0.02°C
Controlled Heating rates : 0.1 to 200°C/min
Calorimetric Sensitivity : 0.2 µW
Calorimetric reproducibility : +/- 1%
Calorimetric precision : +/- 0.1%
Baseline curvature : < 0.15 µW
Baseline reproducibility : <0.04 µW
Dynamic range : +/- 350 mW
Power requirements : 100-240 Volt 50/60 Hz

DSC Software Capability:
Software for evaluation of glass transition phenomenon heats of fusion and reaction, melting point and boiling points and specific heat. Peak detection and analysis, online data accquisition and display of running measurements and calibration, storage of both raw DSC data as well as deconvoluted data in the standard DSC curves as well as in the tabular form, options for baseline correction, data smoothening, plot overlay and calculation of results in the real time and view results, trends in graphs and tables. Temperature modulated software for effective separation of thermodynamic and kinetic processes, Excellent thermokinetics software for DSC .Temperature modulation software to be provided to get reversing and non- reversing signals along with automation and Isostep mode.
Computer, printer etc should be included.

Optional : 32 position or higher autosampler

Terms and conditions:

- Validity of the quotation should be for minimum three months.
- Delivery period not more than 50 days.
- Comprehensive on-site warranty for three years
- Prices quoted should be both for FOB and CIF, New Delhi
- power connections should be suitable for Indian supply at 220 V
- All bank charges outside India shall be on Beneficiary's account and within India shall be on opener's account, in case of imported items.
- 100% Payment through letter of credit (L.C.) after successful installation, commissioning and training.
- Please provide bank details for opening LC
- Educational Institution discount should be given.
- If the item is proprietary in nature, a proprietary certificate should be enclosed
- If the bidder is Indian agent, the Agent ship certificate should be enclosed.
- The Institute reserves the right to accept or reject any/all of the quotations without assigning any reasons thereof.
- List of references of users of the quoted equipment must be submitted with complete postal address, email address, Tel. No. and name of the user(s).
- The unit with given specifications must already be in production and supplied to at least one reputed research organization in India or abroad. Please give contact number and email of the concerned person in charge.
- The manufacturing company should have well established network base in India to install, maintain and repair supplied items on long term basis.
- Provide name of Engineer in Delhi NCR Region who has been trained to repair this machine, if available.

Sealed quotations must reach the undersigned on or before 05-03-2013, latest by 14:00 hrs.

Prof. Veena Choudhary (Head)
Centre for Polymer Science and Engineering
Indian Institute of Technology-Delhi
Hauz Khas, New Delhi, 110016, India.