Enquiry No: IITK/ME/sameer/2013/01

Quotations are invited for the purchase of a **Flash Diffusivity Testing Apparatus for common engineering materials (solids/liquids)** to be used for measuring temperature and thermal diffusivity conforming to International standards such as ASTM E 1461. The detail requirement is furnished below:

- 1. Sample size: up to about 25 mm diameter or smaller.
- 2. Temperature range: Ambient to 300°C as well as possibility for below room temperature with add-on/external control.
- 3. Wide range of Thermal Diffusivity Range (for example 0.01 mm<sup>2</sup>/s to 950 mm<sup>2</sup>/s or more).
- 4. Wide range of Thermal Conductivity: (For example 0.05 W/(m·K) to 2000 W/(m·K) or more)
- 5. Repeatability:
  - i. Thermal Diffusivity: below about +/-3 %
  - ii. Specific Heat: below about +/-3 %
- 6. Accuracy:
- i. Thermal Diffusivity: of the order of +/-5 % or better
- ii. Specific Heat: of the order of +/-5 % or better
- 7. Flash Source:
  - i. Suitable Flash Lamp (fopr example Xenon beased) with controllable Pulse characteristics.

Dated: 12 September 2013

- 8. Sensor Type: InSb IR Detector with integral dewar
- 9. Utilities:
- i. Indian AC power conditions, 230 V 50Hz, 15 Amp Controller
- 10. A comprehensive instruction manual.

## **Terms and Conditions:**

- 1. Prices should be on FOB and CIF (IIT Kanpur)
- 2. Prices should include installation and training cost, and all additional charges including freight, insurance etc.
- 3. Discount: maximum educational-discount to be provided.
- 4. Warranty: no less than three (03) years after installation.
- 5. Quotation validity: no less than 90 days from the date of quotation submission
- Quotations should carry proper certifications such as, agency certificates, proprietary
  certificates, printed company profile, detail technical specification, user-list with phone
  numbers.
- 7. AMC options to be included.

Kindly mention "Flash Diffusivity: IITK/ME/sameer/2013/01" on sealed envelope carrying quotations and additional literature including technical details. **Technical and financial bids** need to be submitted separately. The envelopes, duly sealed, should reach the following address **on or before 25**<sup>th</sup> **September, 2013**. Any questions, technical or otherwise should be directed to the undersigned via fax, phone and/or e-mail.

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