**REQUEST FOR QUOTATION**

Date: 07 Dec 2016

The Centre invites quotation from your firm for the item detailed below.

|  |  |  |  |
| --- | --- | --- | --- |
| SL No | ENQUIRY NO & DATE | Description of Items |  Qty |
| 1) | CeNS/2016-17/SA/F10 & 06/12/2016  |  **Residual Gas Analyzer** Note: Detailed Specification in Annexure.  | 1 No |

**NOTE:**

1. The sealed quotation containing **two separate sealed envelopes**, clearly marked as “Techno-Commercial Bid and “Price Bid along with Compliance Statement should be submitted on or before 16th Dec 2016 by 5.00PM through Speed Post / Courier / Registered Post**.**

( b) The quotation may be addressed to the Director, Centre for Nano and Soft Matter Sciences PB No: 1329, Prof. U.R Rao Road, Jalahalli, Bangalore-560013.

1. The cost of Packing, Freight & Insurance (CIF Bangalore) should be indicated separately. A brochure giving technical details of the product should be enclosed.
2. Discount if any should be clearly mentioned.
3. Delivery schedule, warranty details must be clearly indicated.
4. Taxes & duties should be separately shown.
5. Tender bid(s) should be valid for a minimum period of **3 months** from the date of issue.
6. **Terms of payment:**

**i) For Imported Equipment:** 90% through Letter of Credit with usance period of 30 days on proof of arrival of consignment. The balance 10% payment will be released after expiry of the applicable Warranty period or on submission of Performance Bank Guarantee for an equivalent amount (10% of the Invoice value), having validity up to three months from the date of expiry of the applicable Warranty period.

**ii) For Indigenous Equipment:** the payment in INR shall be made through NEFT/RTGS after successful installation and against submission of performance Bank Guarantee equal to 10% value of the equipment, valid for the period of warranty. Complete details such as the bank account number/IFSC/SWIFT/Bank Address, etc. should be provided along with the price bid.

1. Any firm representing the actual supplier should submit authorized dealership certificate in original from the principal company.
2. **Banking charges:** All banking charges applicable outside India will be on suppliers account.
3. **Guarantee and replacement:** The Supplier shall guarantee that the Items/Equipment supplied shall comply fully with the specifications laid down, for material workmanship and performance. The Guarantee should be as mentioned in the specification.
4. The Centre reserves the right to accept or reject any quotation or part thereof without assigning

 any reasons.

1. Sealed envelopes containing the Separate tender bid(s) should be superscribed with " Tender for

 CeNS/2016-17/SA/F10 "

1. Quotations received after the due date shall not be considered.
2. The Centre is exempt from paying Central Excise of Customs duty on purchase under the Govt. of India

 Notification No. 11/280/1993-TU-V dated 29 April 2016.

 Yours sincerely

Administrative Officer

**ANNEXURE**

ENQUIRY NO : CeNS/2016-17/SA/F10

**Technical specification for Residual Gas Analyzer (RGA) :-**

RGA system with a quadrupole probe, electronics control unit, and real-time Windows software package for data acquisition, analysis and probe control.

|  |  |
| --- | --- |
| Mass range | 1 to 300 amu |
| Mass filter type  | Quadrupole |
| Detector type  | Faraday cup (FC)—standard, electron multiplier (EM)  |
| Resolution  | Better than 0.5 amu @ 10 % peak height (per AVS std. 2.3).  |
| Sensitivity (A/Torr)  | 2 × 10-4 (FC), <200 (EM). Measured with N2 @ 28 amu with 1 amu full peak width, 10 % height, 70 eV electron energy, 12 eV ion energy, and 1 mA electron emission current.User adjustable throughout high voltage range.  |
| Minimum detectable partial pressure  | 5 × 10-11 Torr (FC). 5 × 10-14 Torr (EM). Measured with N2 @ 28 amu with 1 amu full peak width, 10 % height, 70 eV electron energy, 12 eV ion energy, and 1 mA electron emission current.  |
| Operating pressure  | 10-4 Torr to UHV (FC)10-6 Torr to UHV (EM)  |
| Max. operating temp.  | 70 °C  |
| Bake-out temperature  | 300 °C (without ECU)  |
| Ionizer Design  | Open ion source, cylindrical symmetry, electron impact ionization.  |
| **Ionizer**  |  |
| Material  | SS304  |
| Filament  | Thoriated-iridium (dual) with firmware protection.Built-in 1 to 10 W degas ramp-up. Field replaceable.  |
| Electron energy  | 25 to 105 V, programmable  |
| Ion energy  | 8 or 12 V, programmable  |
| Focus voltage  | 0 to 150 V, programmable  |
| Electron emission current  | 0 to 3.5 mA, programmable  |
| Probe mounting flange  | 2.75" CF  |
| ECU  | Easily separated from the probe for bakeout.  |
| LED indicators for | Power ON/OFF, filament ON/OFF, degas ON/OFF, electron multiplier ON/OFF, interface Busy, Error, Overpressure, Burnt Filament.  |
| Warm-up time  | Mass stability ±0.1 amu after 30 minutes |
| Computer interface  | Electronic control unit; RS-232C or suitable; 28,800 baud with high-level command set |
| Software  | Windows based application |
| Power requirement  | 240 VAC |