

**Notice Inviting Quotation**

**Supply, Delivery, Installation of completely modular binary High-Performance Liquid Chromatography (HPLC) system with accessories**

Quotations are invited for the purchase of a High-Performance Liquid Chromatography (HPLC) system for the Department of Biochemical Engineering and Biotechnology. Interested suppliers are required to submit their quotations as per the specifications given below. The sealed Quotations are to be submitted in two Separate envelopes;

**A - for Technical Quote (Specifications) &**

**B - for Financial Quote**

(For details see Annexure I)

Both these envelopes should be enclosed in an outer envelope, which should also be sealed and addressed, clearly mentioning on top right corner of the envelope “**Quotation for High-Performance Liquid Chromatography System**” due on **28th February, 2012**. The quotations should reach the office of **Dr. Praveen Kaul, Room No. I-137, Department of Biochemical Engineering and Biotechnology by 5 PM on 28th February, 2012**. If needed, the suppliers may be asked to make a technical presentation before the committee. Institute reserves the right to accept or reject any of the offers without assigning any reasons

**Technical Specifications**

**HPLC pump**

- Programmable flow rate range: 0.0001 – 10 /min
- Flow precision: 0.06% RSD.
- Flow accuracy: +/- 1.0%
- Compressibility compensation: Programmable.
- Flow calibration: Programmable.
- Purge function: Pre-programmed, user initiated.
- Maximum operating pressure: 40 MPa
- Operating pressure limits: Programmable pressure limits, user selectable in psi, bar, kPa.
- Plunger guiding system: Floating, self aligning mount.

- Primary wetted surface materials: 316 stainless steel, sapphire, reinforced fluorocarbon polymer seals.
- Capable of upgrading to Preparative HPLC system
- Pressure pulsation must not exceed 0.3 bar

### **Gradient Mixer**

#### **Rheodyne (Manual) Injector**

- 5, 50 & 500ul sample loops included.
- 25ul Syringe included

#### **UV/Visible Detector**

- Wavelength range: 190 - 700nm.
- Light source: Deuterium.
- Noise:  $< 0.5 \times 10^{-5}$  AU, dry cell, 230nm.
- Drift:  $1 \times 10^{-4}$  AU/hour.
- Linearity:  $< 5\%$  at 2.5 AU,
- Bandwidth: 5 - 8 nm.
- Temperature Controlled Flowcell: 10ul, (Standard.).
- Time programmable: Wavelength, polarity, lamp on/off.
- Measurement range: 0.0001 to 4.0000 AUFS.
- Accuracy:  $\pm 1$ nm.
- Reproducibility:  $\pm 0.1$ nm.
- On-line LCD display of chromatograms/spectras.

#### **System controller**

- Operating range : 10 to 35 °C
- Compliance : 21 CFR part 11
- Data buffering : 24 hours
- Leakage sensor

It allows the system to be controlled, monitored and maintained. If pressure falls below specified value, the expert function will automatically purge the mobile phase. It should be capable of control of up to 4 HPLC systems and data acquisition of upto 8 channels (2 detectors for each system). It should cover full one-point digital instrument control, qualitative and quantitative processing, report creation and self-diagnosis. Sample schedule wizard function should be standard. There should be an on-line help function

context sensitive. The reporting format should be flexible and easy to use in any desired format. The data can be converted to other formats. Spread sheet software and word-processing software can be readily employed to provide data in tables or graphs through industry standard protocols. The software should allow automatic execution of system checks, auto-purge and baseline checks.

### **Software Add On as an interface between HPLC and user**

#### **Column**

C18 (250 mm × 4.6 mm)

#### **Other accessories**

Pentium IV, 2.8GHz , 300GB Hard Disk minimum partition in "C = 200 Gb " and "D =100 Gb" Drive, USB 1.44MB Floppy Disk Drive, 17" sVGA Color Monitor, 4MB VGA Accelerator Graphics Adopter, 2 GB RAM with Windows XP Professional: service pack 2, Internet Explorer 6 and above, 64-bit ,with service pack 4 or 5. DVD Drive, Multimedia with sound card, PS2 type mouse for Windows, One free PCI slot, Printer compatible with Windows XP, Mouse, Manual

### **Terms and conditions**

1. Above specifications also include the supply, delivery and installation of 1 unit of modular binary gradient HPLC system.
2. The HPLC system must be controllable, monitored, capable of performing system maintenance using Microsoft internet explorer web browser.
3. Modules must be connected via fiber optic noise resistant high-speed transmission technology to enhance the reliability and sensitivity of the HPLC.
4. All modules and supplied goods must be GLP compliant

## **Annexure I**

**Envelope A: Technical Quote:** The following details are to be enclosed (*Mention clearly on this envelope – Technical Quote*)

1. Technical brochures mentioning all details with complete address of the principals.
2. A compliance chart based on the specifications as per the NIQ.
3. Any optional equipment / accessory advised to be included separately.
4. Installation requirements including gases, chillers, UPS, etc.
5. List and addresses of organizations in India where the equipment has been supplied.
6. Details of other equipment supplied to IIT Delhi specifying the Department/ centre / lab to which the equipment was supplied. Also mention if the equipment is being maintained by your organization.
7. Address of the technical office, in India, with telephone and FAX numbers. Kindly clarify the type of support available in India.
8. If quote is for imported equipment, sole agency-ship certificate on the letterhead of the principal company, if quotation is from an Indian agent.
9. Proprietary item certificate from the principals, if applicable.
10. The agent should be registered for import with the Ministry of Finance / Commerce.

**Envelope B: Financial Quote:** The following details are to be enclosed/ ensured. (*Mention clearly on this envelope – Financial Quote*)

1. The quotations for the equipment in foreign exchange, if it is to be imported. The cost of spares and optional equipment to be quoted separately. The cost should be based on FOB pricing. If equipment is indigenous, the quote should be in INR and all taxes applicable should be mentioned clearly.
2. Institute makes payment after delivery and successful installation. In case the payment terms are different, it should be mentioned clearly. If equipment is to be imported, the address of the company in whose name the LC is to be opened should be stated.
3. The Comprehensive One Year Warranty.
4. The details of the AMC after the warranty period.
5. Cost for Installation and training at site, if needed, to be provided.
6. Validity of the quote should be 90 days.
7. The delivery period to be clearly specified.