

**INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE  
2A & B, RAJA S.C.MULLICK ROAD  
JADAVPUR, KOLKATA-700032**

**Tender No.: OC/JD/15/03 dated 05.08.2015**

**Sub: "Preparative HPLC"**

**Sealed tender** in two bids system (**Technical Bid & Financial bid**) is invited from bonafide, resourceful and eligible manufacturers/exclusive distributors for "**Preparative HPLC**".

**Part - I(Technical Bid)** of the tender should contain technical details and commercial terms and conditions and **Part - II(Price Bid)** should indicate group-wise price as mentioned in the Technical Bid where applicable. The Technical Bid and Price bid are to be submitted in two separately sealed envelopes distinctly marked accordingly and both to be put inside another envelope, which should be sealed and super scribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Complete tender bids should reach the **office of the Department of Organic Chemistry, Indian Association for the Cultivation of Science, 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata - 700032** on or before the scheduled date & time specified below.

<b>Tender Notice No.</b>	<b>OC/JD/15/03 dated 05.08.2015</b>
<b>Last date and time of submitting tender</b>	<b>10.09.2015 at 3.30 P.M.</b>
<b>Pre-bid meeting</b>	<b>20.08.2015 at 3.00 P.M.</b>
<b>Date and time of opening tender</b>	<b>10.09.2015 at 3.30 P.M.</b>
<b>Place of opening tender</b>	<b>IACS Kolkata, Lab 107A</b>
<b>contact</b>	<b>e-mail: <a href="mailto:ocjd@iacs.res.in">ocjd@iacs.res.in</a> Tel. +91-33-2473 4971 (ext. 1405)</b>

The **technical bids** will be opened first to evaluate the technical specifications of the equipment thereafter, the **Price bids** of only technically qualified bidders will be opened.

**1. TECHNICAL BID:**

The Technical Bid should contain technical specifications and kept in a separate envelope duly super scribed as "**Technical Bid**" on the outer side of the envelope as detailed above.

### Specification of a Preparative HPLC

Tenders are invited for the high pressure preparative liquid chromatography system with the following specifications.

1. Solvent Delivery System - Independent Pumps - 2 No's

- The flow rate should be set between 0.01 to 150 ml/min or better
- Flow rate accuracy should be  $\pm 1\%$
- Flow rate precision should be less than  $\pm 0.1\%$  RSD
- Pressure setting range should be 6000 Psi or better
- It should employ active check valves that allow stable delivery of even non-polar organic solvents such as hexane
- Maintenance kit and automatic rinsing kit must be supplied
- It must have a leak sensor as safety feature

2. Separate Analytical & Preparative Mixer Suitable for high pressure, low pressure and semi-micro applications

3. Detectors should be suitable for Analytical, small scale prep and large scale prep

A. Photodiode Array detector

- Light source D2 and W lamps
- Wavelength accuracy- $\pm 1\text{nm}$
- Wave length precision- $\pm 0.1\text{nm}$
- Noise  $0.6 \times 10^{-5}\text{AU}$  or better
- Wavelength range :190~800 nm
- Drift :  $0.5 \times 10^{-3}\text{Au/hr}$  or better
- Band width of 1.2 nm for high peak resolution
- Flow cell must be temperature controlled from ambient to  $50^\circ\text{C}$
- Should have an automatic wave length accuracy check function

B. Refractive Index Detector

- Refractive Index Range: 1~1.75 RIU
- Noise Level:  $2.5 \times 10^{-9}$  RIU or better
- Drift:  $1 \times 10^{-7}$  RIU/hour or better
- Range:  $1 \sim 5000 \times 10^{-6}$  RIU
- Response: 0.05 ~ 10 seconds, 10 step selection
- Polarity Selection: With a switch
- Automatic Cell Temperature control from ambient to  $50^\circ\text{C}$

C. Fluorescence Detector:

- Light source: Xenon lamp, 150W
- Wavelength range: 200 - 650 nm
- Wavelength accuracy: + 0.2 nm
- Wavelength reproducibility: + 0.2 nm or better
- Sensitivity: 1200 or greater signal- to-noise ratio for Raman line of Water
- Cell volume, pressure : 12uL, 2Mpa (approx. 20kgf/cm<sup>2</sup>)
- Time programming : Excitation / Emission wavelength range, response switching, Wavelength scanning, auto zero etc

4. Manual Injector with auto trigger

- Rheodyne injector with auto trigger and 20 uL, 1mL and 5mL loops
- Injector mounting plate
- Hamilton Micro Syringe 25uL, 2.5mL and 5mL

5. Two separate Column Holders suitable for Holding Analytical and Preparative columns up to 50 mm i.d, T-Joint, Piping kit and other relevant accessories to be included.

6. Column Switching Valve: suitable from automatically switching between Analytical to preparative columns.

7. HPLC Start-up kit, Including Ferrules, Tubing's, Nuts, Wrenches, Manuals etc

8. Chromatography software

- Operation of the system should be very easy and intuitive Windows based software
- Complete system control software all parameters should be computer controlled
- Compatible chromatography software, which can acquire and process data from HPLC system.

9. Preparative column-10u particle size, Column Id- 20mm and column length 250mm

10. Suitable PC and 3 KVA online UPS has to be offered

The financial bid indicating (item-wise) price for the item (s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as "PRICE BID" on the outer cover of the envelope as already detailed above. The price bids of only technically qualified bidders will be opened and they will be intimated the date and time of opening at their email id-s. Rest of the bids will stand rejected.

**PRICE: Price to be quoted both on FOB/CIF/EX WORKS basis. Name of the particular Port from where our authorized forwarder will lift the consignment must be mentioned clearly with FOB/CIF/EX WORKS price.**

### **3. BID SECURITY:**

- i) The financial bid should be super scribed as "PRICE BID" on the outer cover of the envelope.
- ii) **Bid Security (EMD):** An Account Payee Demand Draft of Rs. 60,000/-(Sixty thousand only) in the name of "**Indian Association for the Cultivation of Science**" is to be furnished by the bidders as Bid Security money or Earnest Money Deposit (EMD).
- iii) The Demand Draft for the Bid-Security money should have at least 45 (forty five) days validity period after the opening of the Bids.
- iv) In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

### **4. PERFORMANCE SECURITY:**

An Account Payee Demand Draft of **10% of the order value** in the name of "**Indian Association for the Cultivation of Science**" is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money will be refunded to successful bidder on receipt of THE Performance security money.

### **5) GENERAL INSTURCTIONS:**

- 1) Incomplete & conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof.
- 2) Tender Notice Number and tender for "**Preparative HPLC**" should clearly be written on the envelope.

- 3) At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the Institute website. Prospective bidders are advised to occasionally visit the website ([www.iacs.res.in/tender](http://www.iacs.res.in/tender)) for any amendment.
- 4) **Payment:** 100% against delivery and successful installation subject to submission of performance guarantee.
- 5) **Warranty:** Minimum 2 years.
- 6) **Installation/Demonstration/Application Training at site:** Free of cost by the supplier
- 7) **Service facility:** Supplier should mention their details of service setup and Manpower in Kolkata who are responsible for after sales support. Response time should be within 24 hours.
- 8) **Validity of tender:** Tender submitted shall remain valid at least for three months from the date of opening the tender. Validity beyond three months from the date of opening of the tender shall be by mutual consent.
- 9) The tender should accompany a compliance chart.
- 10) The rate should be inclusive of all taxes, transportation etc. Nothing extra will be paid in addition to the quoted rate.
- 11) The model number, make, and a printed literature of the product shall submit positively.
- 12) Proposed delivery schedule should be mentioned clearly.
- 13) Manufacturers/exclusive distributors/vendors should have history of supplying this type of instrument to this or other Scientific Organizations.
- 14) Authorized Dealership Certificate is must in case of principal manufacturing company is not quoting directly.
- 15) Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.

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16) In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of technical bids will be the following working day at the appointed time.

17) In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.

18) For any clarification regarding technical specifications, etc. please send your queries to "Dr. Jyotirmoyee Dash" [ocjd@iacs.res.in](mailto:ocjd@iacs.res.in).

19) The Institute reserves the right to reject any or all of the tenders received without assigning any reason thereof.

**R E G I S T R A R**