

Request for Quote (RFQ) from Global manufacturers or its authorized Indian distributor for procurement of High Performance Liquid Chromatography (HPLC) system with PDA Detector

**Summary:**

<b>Tender Number</b>	OC/VP/2024/HPLC
<b>Tender Date</b>	22 February 2024
<b>Item Description</b>	High Performance Liquid Chromatography system with PDA Detector
<b>Tender Type</b>	Two bid system: (a) Technical Bid (Part A) (b) Commercial Bid (Part B)
<b>Place of Tender Submission</b>	Department Office, Room No. A109 Department of Organic Chemistry Indian Institute of Science Bangalore 560012
<b>Last Date &amp; Time for Submission of Tender</b>	15 March 2024, 5:00 pm

### **To whom it may concern**

This is a Request for quote (RFQ) from Global manufacturers or its authorized Indian distributor for procurement of **High Performance Liquid Chromatography (HPLC) system with PDA Detector** at the Department of Organic Chemistry (OC), Indian Institute of Science, Bangalore.

All interested vendors shall submit a response demonstrating their capabilities to produce the requested equipment to the primary point of contact listed below.

The deadline for submission of proposals is 15 March 2024 by 5:00 pm. Proposals should arrive at the Department Office, Room No. A109, Department of Organic Chemistry, Indian Institute of Science, Bangalore, Karnataka 560012, India.

Direct all questions concerning the acquisition to **Dr. Vignesh Palani** by email only at: [vpalani@iisc.ac.in](mailto:vpalani@iisc.ac.in)

### **General Terms and Conditions**

1. Quote should come only from the Original Global Equipment Manufacturer (OEM) or their authorized Indian distributor.
2. The bid should be submitted in the two-cover system, i.e., technical bid and commercial bid separately in sealed covers. The technical bid should contain all commercial terms and conditions, except the price.
3. The technical bid must contain a point-by-point technical compliance document. The technical proposal should contain a compliance table that should describe your compliance in a "yes" or "no" response against each of the items in the table listed in this RFQ. If the response is "no", the second column should state the extent of deviation. The third column should state the reason for the deviation, if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirement table below.
4. The commercial bid must include the price of the instrument (CIF, Bangalore, applicable Custom Duty will be borne by the Institute) and all components including controller accessories indicating component-wise and itemized breakup.
5. Price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (installed and ready to use) in our facility. Please quote the price of each optional line item separately.
6. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).
7. The lead time for the delivery of the equipment should not be more than 3 months from the date of receipt of our purchase order. It should be clearly mentioned in the technical and commercial bids.
8. All the quotations must be valid for at least 90 days at the time of submission.

9. List of customers and references: The Bidder should have supplied similar equipment in Central Universities preferably in centrally Funded Technical Institutes (IITs, IISc, IISERs, NITs). Please provide the details and contact information.
10. The Bidder must NOT be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect should be provided.
11. Items in addition to that listed in the technical table that you would like to bring to our attention, such as data sheets, technical plots etc. can be listed at the end of the compliance table.
12. Vendors are encouraged to highlight the advantage of their tools over comparable tools from the competitors.
13. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
14. The Institute reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids, at any time prior to the award of contract without thereby incurring any liability of the affected bidder or bidders.
15. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
16. The vendor should have a good track record of having previously supplied a minimum of 5 HPLCs in IISc Bangalore and a minimum of 50 HPLCs in Karnataka region and should be able to provide End User Certificates from at least five users.
17. If the goods are found to be defective, they have to be replaced or rectified at the cost of the supplier within 30 days from the date of receipt of written communication from us.

### **Service, Training, and Warranty**

1. The vendor must have local dedicated Sales & Service team & Application lab in Karnataka.
2. The vendor must demonstrate that it has a proven appropriate set-up and capability to provide after-sales service efficiently and effectively. The supplier should have a similar system in their facility to that proposed in this tender for training purposes.
3. On-site installation, commissioning, and training shall be conducted by a qualified factory-trained engineer.
4. Support should be available from Monday to Friday, 8:30 am to 5:30 pm (excluding Public Holidays), local time.
5. A declaration of Conformity certificate and System Validation certificate must be provided. All modules must be GLP compliant.
6. Warranty terms and additional warranty options are must for all the components. Please specify the service plan, like whether the local distributor will address the issue or the parent company. Minimum three years of complete system warranty should be given. If the system

requires service during the warranty period, the vendor must guarantee or replace of instrument for free. Vendor to have logistic support to ensure that over at least 95% of the service parts are readily available and upkeep delivery within 24 hours.

7. Terms and conditions for the annual maintenance contract beyond the warranty period should be mentioned.

8. If there is any delay in replacement or rectification, the warranty period should be extended accordingly.

Technical requirements: Please note that the requirements listed below are only guidelines. Vendors are requested to quote for equipment that meet the criteria to the best extent possible and list deviations, if any. Deviations are NOT an automatic reason for disqualification. They will be discussed by a technical group prior to making an informed decision.

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## **HPLC with PDA Detector Technical Specifications**

### **General system specification:**

The system should be an automatic computer controlled Quaternary High-Performance liquid chromatograph system with suitable software equipped with a suitable pump that can handle four solvents with auto sampler, Column organizer, Photodiode array Detector capable of working in both isocratic & gradient operations. Should have the provision for complete upgradation capability (module wise and system wise) in future.

### **Quaternary pump**

- Pump should provide error-free programming of pump parameters including flow rates, operating pressure limits, compressibility compensation, calibration, and diagnostics.
- The Solvent Delivery Unit (Pump) should be capable of operating with 4 Solvents at a time during gradient operation
- Pump mechanism should be hydraulic system.
- Number of solvent channels should be four.
- Settable flow range should be from 0.001 – 10 mL/min, in 0.001 mL/min increments.
- Flow precision value should be  $\leq 0.07$  % RSD.
- Flow accuracy should be  $\pm 1$  %.
- Must deliver a flow rate of up to 10mL/min.
- Must have an operation pressure range of 0 – 600 bar.
- Inbuilt degassing unit should be available for 4 channels.
- Compressibility compensation should be automatic
- Composition range should be settable: 0 – 100 %
- Composition precision should be  $< 0.2$  % RSD.
- Module should have mobile phase monitoring.
- Degasser should be available and preferably inbuilt
- Electronically controlled seal wash should be available to improve lifetime of the seals and plungers in pump while used with highly-concentrated buffer solutions
- Electronically controlled Inlet valve for higher organic mobile phases & high strength buffers.
- Accessories to make system compatible with normal phase application
- Should have leak sensor.

### **Auto sampler**

- The Auto sampler must have a capacity to hold 100 samples
- Must have an operation pressure range of 0 – 600 bar.
- Injection range should be 0.1 to 100  $\mu$ L.
- Precision should be  $< 0.25$  % RSD.
- Carry over should be  $< 0.004$  %.
- Should have needle flush port
- Injection cycle time should be 20 s or better.

- Should have advanced features like auto dilution, premixing and needle rinsing programs.
- Should have leak sensor

### **Column Organizer and column switching valve**

- Organizer to hold upto 6 Columns
- Easily changeable valves and valve drives which can be mounted on the organizer
- Column switching valve (6-position 14-port) with capability of 6-column selection

### **PDA detector**

- Wavelength range should be 190 – 850 nm or more.
- Wavelength accuracy:  $\pm 1$  nm or better.
- Slit width: Programmable for 1, 4, 8 nm or better
- Noise:  $\pm 0.8 \times 10^{-5}$  AU at 254 nm or better.
- Detector Type: 1024 element Diode Array
- Data Rate: 120 Hz or better.
- Light Source: Deuterium lamp and tungsten lamp or deuterium arc lamp
- Standard flow cell for Analytical Workflow.
- Should have leak sensor.
- Temperature control should be available for the complete optical unit

### **Chromatography Data Software.**

Chromatography Data system have 32/64-bit design for windows 10 or compatible software. Real time triggers to react the condition i.e., to take action on Fault, Stop, Start, wavelength switching, injection etc. The software should be genuine & original.

Additionally, a mobile phone application should be available for troubleshooting guide, Different method calculators and data library with formulas and conversion factor. It should preferably operate offline without internet/Wi-Fi.

### **Consumables and spares**

- 1 nos. C18 3.0x150mm, 2.7um column
- Appropriate Tool and accessories for the HPLC should be provided, including Connecting capillaries, Solvent bottles, communication cable, plastic syringe with adapter, appropriate hex keys, wrenches, and screwdrivers.

### **PC:**

PC along with latest configuration with LCD/LED monitor, optical mouse, keyboard.

- Suitable Branded PC with i5 Processor, 8 GB RAM, 1 TB HDD should be quoted. Or equivalent should be quoted.

### **Warranty**

- 3 year warranty to be quoted

**Other Requirements:**

- Vendor should supplied & installed 10 HPLC instruments installations in Karnataka/ Government organizations in past 5 years. Vendor should share installation list with contact details.
- Vendor should have service support and application support team in Bangalore.

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