

Global Tender Notification for the Procurement of HPLC System with PDA & RI Detectors

This is a Request for a Quote (RFQ) from Global manufacturers or their authorized Indian distributor for the procurement of **High-performance liquid chromatography (PDA & RI detectors)** at the Department of Organic Chemistry, Indian Institute of Science, Bangalore (dated 26th April 2023).

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 bids is 17th May 2023 (5 PM IST). Proposals should arrive at the Office of the Chairman, Department of Organic Chemistry, Indian Institute of Science, Bangalore, Karnataka 560012, India.

Direct all questions concerning the acquisition to **Prof. Akkattu T. Biju** by email only at: atbiju@iisc.ac.in

As per the OM No.F.4/1/2023-PPD dated 03-04-2023 on Relaxation on Procurement of Certain Items through GTE, HPLC Systems (among 364 Medical devices) are exempted from the instructions related to GTE (for details, see the Annexure A of the OM, Sl. No. 220).

General Terms and Conditions

1. Quote should come only from the Global Manufacturers 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 the 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. 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.
5. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).
6. 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.

7. All quotations must be valid for at least 90 days at the time of submission.
8. 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, CSIR Labs, etc.). Please provide the details and contact information.
9. 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.
10. 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.
11. Vendors are encouraged to highlight the advantage of their tools over comparable tools from the competitors.
12. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
13. 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 the contract without thereby incurring any liability of the affected bidder or bidders.
14. After the award of the purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
15. The vendor should have a good track record of having previously supplied similar equipment in IISc and other centrally funded universities/institutes.
16. The vendor should be able to provide End User Certificates from at least five users.
17. The vendor is encouraged to provide recommendation letters from the user's university/institute, and the contact of people with the PO number.
18. 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.
19. The detailed technical literature and make of each component should be submitted by the bidders.
20. The quotations should be on CIF terms FOR-IISc Bangalore basis.

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. Please specify the service plan, like whether the local distributor will address the issue or the parent company.
7. Three years of complete system warranty should be given for all the components. 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 3 days.

8. Terms and conditions for the annual maintenance contract beyond the warranty period should be mentioned.
9. Vendor to provide a copy of the Site-Preparation checklist.
10. If there is any delay in replacement or rectification, the warranty period should be extended accordingly.
11. Any problems that occurred during the warranty period should be rectified within 2 weeks.

Technical requirements

Please note that the requirements listed below are only guidelines. Vendors are requested to quote for equipment that meets the criteria to the best extent possible and list deviations, if any. Deviations are NOT an automatic reason for disqualification. A technical group will discuss them before making an informed decision.

Technical Specifications

The HPLC system should be an automatic computer controlled Quaternary High-Performance liquid chromatograph with suitable software equipped with a suitable pump that can handle four solvents with auto sampler, Column Compartment, UV detector capable of working in both isocratic & gradient operations.

Quaternary Pump

1. Pump should provide error-free programming of pump parameters including flow rates, operating pressure limits, compressibility compensation, calibration, and diagnostics.
2. Mode of operation should be quaternary gradient with integrated Degasser.
3. Electronically controlled Inlet valve for higher organic mobile phases & high strength buffers.
4. Pump mechanism should be hydraulic system.
5. Settable flow range should be at least 0.001 – 10mL/min.
6. Flow precision value should be ≤ 0.07 % RSD.
7. Flow accuracy should be ± 1 %.
8. Must have an operation pressure of 600 bar or better.
9. Should have a pH range 1.0 — 12.5.
10. Integrated degassing unit for 4 channels.
11. Composition precision should be < 0.2 % RSD.
12. Module should have mobile phase monitoring.
13. Should have the provision for complete upgradation capability (module wise and system wise) in future.
14. Should have leak sensor.

Manual Injector

Suitable manual injector with loops of 20uL, 50uL and 100uL must be provided with maximum pressure limit of 600 Bar.

Column compartment

1. The Column Compartment should be Thermostatted with cooling facility 10 degrees below ambient to 85 degrees.
2. Four or more columns of at least 300 mm should be accommodated.
3. Column compartment should be with Peltier cooling and solvent preheating.
4. Temperature accuracy should be ± 0.5 °C.
5. Must have Two Independent Temperature zones in column compartment.
6. Must have future upgradable option available for onsite upgrade for automated "Switching valve" for 4 columns.

PDA Detector

1. Wavelength range: 190-800 nm or better.
2. Wavelength accuracy: ± 1 nm or better.
3. Slit width: Programmable for 1, 2, 4, 8, 16 nm or better
4. Noise: $\pm 0.8 \times 10^{-5}$ AU at 254 nm or better.
5. Detector Type: 1024 element Diode Array
6. Data Rate: 120 Hz or better.
7. Light Source : Deuterium lamp and tungsten lamp or deuterium arc lamp
8. Standard flow cell for Analytical Workflow.
9. Should have leak sensor.
10. Temperature control should be available for the complete optical unit.

RI Detector

1. Should have Detection type: Refractive Index.
2. Should have Short term noise: $< \pm 1.25 \cdot 10^{-9}$ RIU
3. Should have Drift: 200×10^{-9} RIU/h*
4. Should have Refractive index range: 1.00–1.75, calibrated..
5. Should have Flow cell: 8 μ l, 5 bar pressure maximum.
6. Should have Temperature control: Ambient +5 degree Celsius to 55 degree Celsius.
7. Optical zeroing should be Digital via software and manually via set screw.
8. Valves should be available for Automatic purge and automatic solvent recycle.
9. Should have leak sensor.

CDS Software

Chromatography Data system have 32/64-bit design for windows 7 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.

Columns

The vendor should provide the following columns along with the HPLC system.

1. One CHIRALPAK IJ, Analytical 150 x 4.6 mm, 5 μ m.
2. One CHIRALPAK AD-3, Analytical 150 x 4.6 mm, 5 μ m.
3. One CHIRALPAK OD-3, Analytical 150 x 4.6 mm, 5 μ m.
4. 1 nos. C18 4.6 x 100mm, 2.7 μ m.

HPLC microliter syringes

1. Four 25 μ L
2. One 100 μ L

In addition, appropriate tools 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.

Warranty : Three years standard warranty to be offered on the entire system.

Training : The system should be accompanied by a Conformity Certificate.

Onsite demonstration and training for the faculty/scientists/students to be provided periodically for the handling of the system and its application.

A declaration of Conformity certificate & System Validation Certificate must be provided. Suppliers should have an application lab and a local office in Karnataka.

Optional items: Total warranty of 3 years + 2 years AMC optional

Other requirements

1. The payment terms should be specified in the commercial proposal, which should be consistent with IISc's domestic purchase policies.
2. Please provide details of the number of trained personnel in India, the number in the southern region, or Bangalore who can service the instrument.
3. Please include other options currently available which can be added in the future.
4. The vendor should attach product brochures along with the technical bid.
5. A set of basic experiments for performing routine checks of acceptable operation with clear instructions to be provided. A standard sample to estimate column efficiency should be included.
6. The quotations should be in USD or INR only.

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