



CSIR-Indian Institute of Petroleum

(Council of Scientific & Industrial Research)

P.O.I.I.P., MOHKAMPUR, DEHRADUN – 248005 (UK) INDIA

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TENDER NOTICE NO 26/2017-18

Sealed tenders under two bids system (Part-I Technical bid along with EMD and Part II Price bid) are invited from the Indian / Foreign manufacturers/ Authorized Distributors or Indian Agents for the supply, installation and commissioning of the following equipment:-

Sl.No	File No.	Description	Qty	EMD (in Indian Rupees)
1.	PUR/1/17-18/356/RRB/RTD/PO:	High Pressure Liquid Chromatography-HPLC with UV/Vis Detector and RI	One	Rs 70,000.00 (Rs Seventy Thousand Only)

The bids must reach this office on or before **21.02.2018** upto **14:30 hours (IST)** and shall be opened on **same day at 15:00 hours (IST)**.

Please visit our website www.iip.res.in for further details for standard bid documents.


(Stores & Purchase Officer)



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INVITATION FOR BID / NIT (Two Bid System)

1. Sealed tenders under two bids system (part-I Technical bid along with EMD and part II Price bid) are invited from the Indian / Foreign manufacturers/ Authorized Distributors or Indian Agents for the supply, installation and commissioning of the following equipments:-

Sl No.	Tender No.	Description of items	Qty	EMD (in Indian Rupees)
1.	PUR/1/17-18/356/RRB/RTD/PO:	High Pressure Liquid Chromatography - HPLC with UV/Vis Detector and RI (Detailed specification as per Annexure)	One	Rs 70,000.00 (Rs Seventy Thousand Only)

2. The complete set of "Standard Bid Document" is available in our website www.iip.res.in at free of cost. The same may be downloaded and used while preparing your bid. A copy of the same may be attached along with the bid, duly signed and stamped.
3. The bids must reach this office on or before 21.02.2018 upto **14:30 hours (IST)** and shall be opened on **same day at 15:00 hours (IST)**.
4. EMD should be in favor of Director, I.I.P, Dehradun in form of Demand Draft or Bank Guarantee.
5. The Director, Indian Institute of Petroleum, Dehradun reserves the right to accept any or all tenders either in part or in full or to split the order without assigning any reasons there for.
6. The Indian agent of the foreign suppliers should be enlisted with DGS&D.


(Stores & Purchase Officer)

Procurement of High Pressure Liquid Chromatography-HPLC with UV/Vis detector and RI

Technical Specification

1. Pump-01 No

- It should be an integrated high pressure binary gradient solvent delivery system
- The flow rate - 0.01 to 5 ml/min and more
- Flow rate accuracy : $\pm 1\%$
- Flow rate precision: $\pm 0.5\%$ RSD
- Maximum Pressure: 5000 psi or better
- Compressibility compensation: Programmable
- Automatic rinsing kit should be provided

2. Inbuilt Degasser

- Membrane degassing unit should have two or more flow lines

3. Manual Injector: A suitable fixed loop manual injector with 5, 10 and 20 μL .

4. Auto sampler

- Sample injection volume setting range: 0.1 μl to 100 μl .
- No. of samples – 20 or more with different capacity
- Auto sampler thermo stat temperature range 4 $^{\circ}\text{C}$ to 40 $^{\circ}\text{C}$ in 1 $^{\circ}$ increments.
- The Carry over must be below 0.005 %
- Injection volume accuracy : $\leq 1\%$
- Injection precision: $\leq 0.25\%$ of RSD

5. Column Oven or Compartment

- The temperature range should be ambient to 60 $^{\circ}\text{C}$ or more
- Temperature control precision : $\pm 0.1^{\circ}\text{C}$
- For minimum 2 columns can accommodate or better
- Quick Change 2-position/6-port valve with software controlling.

6. Dual wavelength UV/Vis Detector

- Wavelength range : 190 nm - 600 nm
- Light source: Deuterium lamp
- Lamp lifetime : 2000 h or more
- Wavelength accuracy : ± 1 nm
- Linearity range: > 2.5 AU (5%) upper limit or better
- The Drift: 1×10^{-4} AU/hr at 230 nm or better
- The Noise Level $\leq 1 \times 10^{-5}$ AU
- Data Rate: 60 Hz or better
- Software for automatically maximizing signal to noise in both uv and visible range to get low noise and consistent results over time with option of Peak purity analysis.

7. Refractive Index Detector

- Refractive Index range : 1 to 1.75 RIU
- Noise Level : 2.5×10^{-9} RIU max
- Drift: $\leq 2 \times 10^{-7}$ RIU/h max
- Zero point adjustment: Auto zero



- Cell volume: 8ul. Or better
- Flow Cell: Fused Quartz or better
- Flow rate: 0.1 to 10.0 ml/min. or better
- Cell pressure: 5 bar Or better

8. Software:

- The chromatography software should be compliant with latest windows based operating system. The software should have standard HPLC software features like interactive graphics, tool bar for online editing, batch data processing, automated baseline correction, peak integration, overlay, baseline compensation, S/N ratio adjustment.
- It should have database library, oracle data base, online help & answer wizard report publisher, versatility for multitasking without multiple software package with all the necessary hardware to run the software.

9. Essential Items:

S.No	Description	Qty
1.	C-18 Column (250X4.6 mm, 5u)	02No.
2.	C18 column (100X4.6 mm, 3.5u)	02 No
3.	Shodex RSpak KC-G 8B (8.0mmI.D. x 50mm) + KC-811 (8.0mmI.D. x 300mm) x 2	01 set
4.	Aminex HPx-87H (8.0mmI.D. x 300mm)	02 Nos.
5.	Hi-Plex Ca, 7.7 x 300 mm, 8 µm	02 Nos.
6.	PC with latest configuration	1 No
7	20, 50, 100, uL Hamilton syringes	3 sets

10. Consumable and accessories-

Except PC, printer and column entire configuration have to be send by OEM including spares and consumables.

11. Installation warranty and Training

- All the OEM parts and spares/ consumable have to quoted with individual Item Numbers and unit price.
- 2 years warranty on parts and labour.
- Full installation and commissioning at the cost of supplier
- Compatibility with non-proprietary vials and plates etc.
- Spares required after warranty period should be given with prices as optional.
- Necessary-pre installation advice should be sent immediately before shipping the instrument.
- All electrical fitting must be flame proof and certified for operation in hydrogen/hazardous atmosphere
- Two sets of operation , service manual and electronic circuit diagram of instrument have to be provided free of cost
- All relevant calibration certificates must be provided
- Onsite user and maintenance training troubleshooting and Operation training of the instrument at our site and at manufacture training centers for two persons for 3-4 days at no cost to IIP
- System performance Guarantee certificate from supplier

Optional

Recommended list of spares for smooth running of the instrument and additional CMC/AMC charges for three years on annual payment basis.