



# CSIR-Indian Institute of Petroleum

(Council of Scientific & Industrial Research)

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

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## TENDER NOTICE NO 03/2017-18

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. | Tender No.                   | Description of items   | Qty | EMD<br>(in Indian Rupees)                 |
|--------|------------------------------|--|-----|---|
| 1.     | PUR/1/16-17/311/RRB/CCPD/PO: | High Temperature Programmable Furnace                        | One | Rs 80,000.00<br>(Rs Eighty Thousand Only) |
| 2.     | PUR/1/17-18/19/JK/ASD/PO:    | Gas Chromatograph-Sulfur Chemiluminescence Detector (GC-SCD) | One | Rs 1,00,000.00<br>(Rs One Lakh Only)      |

The bids must reach this office on or before **02.06.2017** 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](http://www.iip.res.in) for further details for standard bid documents.

  
(Stores & Purchase Officer)



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ISO-9001 Regd. Institute

## TENDER NOTICE NO. 03/2017-18

### 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:-

| SI No. | Tender No.                   | Description of items   | Qty | EMD<br>(in Indian Rupees)                 |
|--------|------------------------------|--|-----|---|
| 1.     | PUR/1/16-17/311/RRB/CCPD/PO: | High Temperature Programmable Furnace<br>(Detailed specification as per Annexure)                        | One | Rs 80,000.00<br>(Rs Eighty Thousand Only) |
| 2.     | PUR/1/17-18/19/JK/ASD/PO:    | Gas Chromatograph-Sulfur Chemiluminescence Detector (GC-SCD)<br>(Detailed specification as per Annexure) | One | Rs 1,00,000.00<br>(Rs One Lakh Only)      |

2. The complete set of "Standard Bid Document" is available in our website [www.iip.res.in](http://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 02.06.2017 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 registered with DGS&D.**

  
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### TECHNICAL SPECIFICATION

Gas chromatograph-Sulfur Chemiluminescence Detector (GC-SCD) based analyzer capable of analyzing sulfur species in hydrocarbon distillates such as petroleum gas, naphtha, gasoline, kerosene, ATF, diesel and VGO. The GC must also comply with ASTM D5623 method (for Liquid), ASTM D5504/UOP-791-94(for gas).

1. The GC should be equipped with suitable column providing adequate resolution of the sulfur components of interest as mentioned above.
2. The GC column oven should have operating temperature range from 5°C above ambient to 450°C with a temperature set point resolution of 1°C or better.
3. Minimum 9 ramps or more(10steps or more)
4. Oven cool down from 450°C to 50°C should be in less than 5 minutes.
5. The GC should provide real time ambient temperature and pressure compensation.
6. The GC should have electronic pneumatics control (EPC).
7. The system should have one Sulfur Chemiluminescence Detector (SCD). The detector function should be based on latest technology using dual plasma burner and controller.
8. The detector should provide a linear and equimolar response to sulfur compounds without interference from hydrocarbon matrix.
9. The linear dynamic range of the SCD detector should be  $\geq 10^4$
10. The SCD detector should have detectability of 10ppb sulphur/s or better.
11. The sulfur to carbon selectivity should be  $> 10^7$  gS/gC
12. Programmable split/split less injectors
13. Maximum injector port temperature should be 450 °C.
14. Injector system should have automatic liquid sampler (ALS) with at least ten vials.
15. The chromatography software should be compliant with latest windows based operating system. The software should have standard GC 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.
16. The analyzer should be supplied with a branded computer along with printer with latest and required configuration for running the system software for data acquisition, data processing and data storing and printing purpose.
17. Installation, complete demonstration of the capabilities of the system with standard sample of sulfur compounds, commissioning and comprehensive free onsite training of IIP personnel by factory trained service/application engineer. The training should

cover troubleshooting, routine analysis of different petroleum fractions, interpreting data, report preparation.

18. Power requirement of the system should be 220 V, 50 Hz
19. 12 months warranty from the date of commissioning.
20. A certificate from the vendor is required stating that it will provide compulsory ten year service support with required spares after the supply of the instrument.
21. The party must furnish the list of customers using the offered system supplied by them.

**Optional Requirements:**

- The vendor should quote separately essential spares and consumables if any required for at least five years of trouble free operation.
- Additional 24 months of comprehensive warranty after completion of the compulsory 12 months warranty.
- Calibration standard mixtures for ASTM D5623 method (for Liquid), ASTM D5504/UOP-791-94(for gas).



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