



CSIR-Indian Institute of Petroleum

(Council of Scientific & Industrial Research)

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

Ph.0135-2525762 & 2525945, Fax. 0135-2660072, 2660202-203

E-Mail- pmitra@iip.res.in, rawats@iip.res.in

Website : www.iip.res.in



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TENDER NOTICE NO 14/2017-18

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/1/17-18/129/AKG/FTL/PO:	Sulfur Analyzer	One	Rs 60,000.00 (Rs Sixty Thousand Only)

The bids must reach this office on or before **25.10.2017** 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 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/1/17-18/129/AKG/FTL/PO:	Sulfur Analyzer (Detailed specification as per Annexure)	One	Rs 60,000.00 (Rs Sixty 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 **25.10.2017** 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 enlisted with DGS&D.


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Technical Specifications

EDXRF based analyzer for measuring sulfur content present in automotive gasoline containing up to 3.7 % (m/m) Oxygen (including those blended with ethanol up to 10 % (V/V)), in diesel fuels (including those containing up to about 10%(V/V) Fatty Acid Methyl Ester (FAME) having sulfur contents in the range 8 mg/kg to 50 mg/kg. The instrument should comply with ISO 13032-2012

Essential Requirements:

1. **Principle of Sulfur Detection: Conforming to ISO 13032** (Principal: The test portion, in a cup fitted with an X-ray transparent window, is placed in a beam of exciting radiation from an X-ray tube. The intensity of the sulfur K-L_{2,3} characteristic X-radiation is measured and the accumulated count is compared with a calibration curve constructed from sulfur standards covering the range of sulfur contents under examination)
2. **Sample Preparation:** Minimal
3. Removable Sample Cup, providing a sample depth of at least 5 mm and equipped with replaceable X ray transparent film (as per ISO 13032 method requirement)
4. **Sample Loading/Sample Tray:** Minimum 6 positions sample tray with ability to fit secondary safety windows in each location.
5. **Sample Chamber:** Air with optional Helium
6. **Source of X ray excitation**, with significant flux at X ray energies above 2.5 keV (For X-ray detectors with a resolution greater than 200 eV at 2.3 keV, all characteristic X-ray lines originating from the X-ray tube anode shall have an energy above 3.3 keV)
7. **X ray detector**, with a resolution not exceeding 800 eV at 2.3 keV
8. **Filters:** Means of discriminating between sulfur K-L_{2,3} characteristic X-radiation and other X-rays of higher energy (if required).
9. Signal conditioning and data-handling electronics, including the functions of pulse counting and an energy region for the S peak as a minimum, equipped with necessary software for quantitative estimation of sulfur
10. The precision and bias for sulfur measurement as per ISO 13032
11. **Safety provisions** with respect to X ray radiation must be provided.
12. **Voltage requirement** of the system should be 220V, 50 Hz, Min/Max operating temperature from 15 °C to 35 °C.
13. Supplier should provide a list of users addresses in India, where the supplier has supplied the quoted model if it is a new model than the list of users of previous model should be provided.

14. Video of operation of Instrument should be provided
15. Supply, Installation and Commissioning of Equipment at FTL Noida.
16. Free on-site training of IIP/FTL personnel by trained engineer from the company.
17. Twelve months comprehensive warranty from the date of commissioning.
18. Provide Service (with detailed circuit diagram) and operational manual.
19. Support for services and spares should be available for next 10 years after commissioning of the equipment.
20. All the technical specifications should be supported by documentary evidences.

Optional Requirements:

Supplier should quote separately essential spares for analyzer and for carrying out the analysis of 2000 samples and Certified Reference Materials (CRM) in the full measuring range and Sulfur compounds such as Dibutylsulfide(DBS) and Dibutyldisulfide(DBDS). And warranty for 2nd year. .


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