



**CSIR – INDIAN INSTITUTE OF PETROLEUM
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)
HARIDWAR ROAD, MOHKAMPUR, DEHRADUN INDIA – 248005**

**EXPRESSION OF INTEREST
for
FINDING / SEARCHING DOMESTIC MANUFACTURERS OR SUPPLIERS FOR
SCIENTIFIC / R&D ITEMS**

IIP REF: IIP/EOI/2020/MII/

HARD COPY of your proposal to be submitted to:

**Controller of Stores & Purchase
CSIR - INDIAN INSTITUTE OF PETROLEUM
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)
HARIDWAR ROAD, MOHKAMPUR, DEHRADUN INDIA – 248005
E-Mail: cosp@iip.res.in, rawats@iip.res.in
Website: <http://www.iip.res.in>**

LAST DATE FOR SUBMITTING WRITTEN PROPOSAL: Dec 1 , 2020, 3.00 P.M

**ENQUIRIES SEEKING NAMES OF INDNETORS / END USERS SHALL NOT BE ENTERTAINED. ALL
INSTRUCTIONS ARE AVAILABLE IN THIS DOCUMENT ONLY. PLEASE READ IT THOROUGHLY.**

CSIR-Indian Institute of Petroleum (IIP), Dehradun, an ISO 9001 Institute, is one of the leading constituent laboratories under Council of Scientific & Industrial Research (CSIR) engaged in R&D work in petroleum refining, natural gas and petro-chemicals and contributing towards creation of state of the art technology & products intends to procure various scientific instruments/ items as per the detailed specifications provided in this document. Normally most of these items with the kind of specifications and parameters required for users in IIP for their research purposes are available through international manufacturers / suppliers. In pursuance of recent policies / guideline /orders issued by various Ministries of the Govt. of India to encourage domestic manufacturing and preference to domestic suppliers under various programs like 'Make in India', 'Atma Nirbhar Bharat' etc. interested firms capable of offering the listed items are requested to respond to this notice.

Firms are requested to refer to the **Order Nos. P-45021/2/2017-PP (BE-II) dt. 15.06.2017 as amended vide order of even number 28.05.2018, 29.05.2019, 04.06.2020, and 16.09.2020** issued by Public Procurement Section of DPIIT, Min. of Commerce & Industry, Government of India in their own interest to know about the provisions related to domestic suppliers for participation in open tenders. Firms may also refer to various other policies / programs of the Govt. related to promoting domestic manufacturing and/or supply.

Following is the list of items with their detailed specifications that are required by users in CSIR-IIP to meet their research requirements. WE STRONGLY ENCOURAGE INDIAN MANUFACTURERS / SUPPLIERS OF SAME / SIMILAR ITMES TO GO THROUGH THE TECHNICAL PARAMETERS AND WRITE TO US EXPRESSING THEIR INTEREST TO MANUFACTURE / SUPPLY THE SAME. WHEREVER IT IS FELT THAT ANY / SOME PARAMETERS ARE RESTRICTIVE OR SUPERFLOUS IN NATURE, DOMESTIC MANUFACTURERS CAN BRING THE SAME TO OUR NOTICE.

DOMESTIC MANUFACTURERS / SUPPLIERS, INDIAN SUBSIDIARIES OR AGENTS OF FOREIGN MANUFACTURERS / SUPPLIERS ARE REQUESTED TO GO THROUG THE PROVISION OF ORDERS ISSUED BY DPIIT, MIN. OF COMMERCE & INDUSTRY OR ANY OTHER ORDER / CIRCULAR ISSUED BY OTHER MINISITRIES TO EXPRESS THEIR INTEREST TO SUPPLY THE ITEMS REQUIRED BY CSIR-IIP IN COMPLIANCE OF THE PROVISIONS OF THE THOSE ORDER(S)/CIRCULARS.

AFTER EVALUATING RESPONSE TO THIS EOI NOTICE, CSIR-IIP WILL DECIDE ABOUT FLOATING GLOBAL TENDER ENQUIRY (GTE) AFTER SEEKING APPROVAL OF THE COMPETENT AUTHORITY ONLY FOR SUCH ITEMS FOR WHICH NO DOMESTIC MANUFACTURER OR SUPPLIER HAS EXPRESSED INTEREST TO SUPPLY THE ITMES WITH THE REQUIRED SPECIFICATIONS IN PURSUANCE OF THE SAID GOVT. CIRCULARS / ORDERS / NOTIFICATIONS.

CRITICAL DATE SHEET

क्रमांक Sl. No.	प्रक्रमStage	दिनांकऔरसमयDate & Time
1.	प्रकाशनकादिनांकऔरसमय Publish Date & Time	06.11.2020 1600hrs IST
2.	दस्तावेजविक्रय / डाउनलोडकाप्रारंभदिनांकऔरसमय Sale /document Download Start Date & Time	06.11.2020 1600hrs IST
3.	संदेह / सवालपूछनेकीअंतिमदिनांकऔरसमय Last Date & time for receipt of queries	13.11.2020 1500 hrs IST
4.	बोलीपूर्वसम्मेलन, यदिहोतो Pre-bid Conference, if any	NOT APPLICABLE
5.	बोलीजमाकरनेकीप्रारंभिकदिनांकऔरसमय Bid Submission Start Date & time	06.11.2020 1600hrs IST
6.	बोलीजमाकरनेकीअंतिमदिनांकऔरसमय Bid Submission End Date & Time	01.12.2020 1500hrs IST
7.	बोलीखोलेजानेकीदिनांकऔरसमय Bid Opening Date & Time	02.12.2020 1500 HRS IST

1	Item Name :	GAS ANALYSER SYSTEM FOR ONLINE/OFFLINE USAGE
		<p>One Gas analyser with two(02) TCD detectors and one (01) FID, Injectors 1 no split/split less capillary injection port for offline and 1 no heated GSV and required number of valves for online usage for gas phase analysis for permanent gases (H₂, O₂, CO, CO₂, N₂), H₂S, H₂O, C₁-C₆ hydrocarbon in a single injection with all isomer separation. Software should be to generate a single report for both the detectors for a single injection.</p> <p>Performance Highly precise retention time repeatability (< 0.0008 min) Area repeatability(<0.5%RSD),full EPC for all inlets and detectors.</p> <p>GC Flow Control Highly precise electronic pneumatic control (EPC) or electronic flow control (EFC) or pneumatic pressure control (PPC) or digital pressure control (DPC) for injectors, detectors and auxiliary gases controllable through input keyboard or GC software. The precise pneumatics and temperature control must be evident with chromatographic performance of the instrument. Pressure set point of at least 0.001 psi. Flow or pressure set point parameter for on each inlet/injector or detector should be displayed on screen. Automatic control of split vent, automatic setting of split flow rates and split ratios by software. Alarm facility for heater, sensor and gas flow faults.</p> <p>GC Oven Temperature range ambient +5°C to 450°C . Temperature set-point resolution should be 0.1°C. Maximum achievable temperature ramp up to 120°C per minute or better. Multi ramp (more than 9) temperature programming and plateaus with high accuracy. Fastest cooling down rate for oven (less than 5 minutes for cooling from 400 to 50 °C). Ambient rejection: 0.01°C per 1°C</p> <p>Inlet/Injector One capillary split/splitless (S/SL) inlet and one gas sampling valve (GSV) Temperature range: 50°C to 400°C or better. Split ratio of 6000:1 or more in both S/SL Must be able to connect capillary columns with internal diameter ranging from 0.1 to 0.53 mm. All injection ports should be independently heated. Multi-port automatic heated gas sampling valve for on-line analysis with 0.25, 0.5ml and 1 ml loop using GC Transfer Line from a micro reactor (to reduce high pressure to ambient pressure)</p> <p>Detectors Highly sensitive Flame Ionization Detector FID. Flame out detection and automatic re-ignition. Maximum temperature of FID should be 450°C or better Maximum detection limit: less than 2 pg Carbon/sec. Linear dynamic range should be 10⁷ or better Thermal Conductivity Detector (TCD). Thermal Conductivity Detector (TCD) compatible with ¼ and 1/8 inch columns Maximum temperature of TCD should be 400°C or better Maximum detection limit should be minimum 800 pgtridecane /mL or 300pg butane with He carrier. Linear dynamic range should be 10⁵ or better Filament protection: standard Air/He and hydrogen lines should have separate controls for both detectors. Data Acquisition rate 300 Hz or more for both detectors (TCD&FID)</p> <p>Data acquisition and analysis Latest windows operating system supported advanced user friendly data analysis/acquisition software equipped with quantitative data analysis feature (including original CDs with license numbers).Software should provide a single and compiled report for both the detector for a single injection. PC with latest processor intel i5(at least 5th generation) and windows 10 operating system, 8 GB RAM, 1TB HDD, DVD RW multi with 22" LED monitor, Wi Fi, Lan port, USB key board, USB mouse along with all original operating system and mother board CDs. PC with higher than above mentioned specifications is preferable. The system must be capable of carrying out self-diagnostics in case of errors.</p> <p>Accessories A set of GC columns as spare (one set installed in analyser separately) At least 10 ferrules each for injector and detector interface for wide and narrow bore capillary GC columns. 50nos of low bleed septa for GC inlet. Column inlet nuts: 2Nos Nuts, ferrules, spanner, tube cutter, screwdrivers, wrench and SS tubing for carrier connection into GC. 2 bottles snoop leak detector and glass wall. Liners for S/SL inlet (5nos)</p>

Sample loop 2 mL
Calibration gas mixture RGA standard

Installation, Warranty, AMC and Training

Necessary pre-installation advice should be sent immediately before shipping the instrument.

At least 12 months comprehensive warranty from the date of commissioning.

Onsite comprehensive user and maintenance training.

Complete demonstration of installation checkout specifications failing which instrument will not be accepted.

Detailed circuit diagrams, service and operation manuals.

A certificate of the principal firm be included stating the instrument spares and service will be available 10 years after the supply.

Terms and conditions for instrument

The supplier must provide installation, commissioning and complete training to users without any additional cost and supply relevant operating and servicing manuals in printed and soft formats.

The supplier must demonstrate that they have appropriate setup and capability to provide after sales technical support and timely servicing of the instrument. In addition, list of existing users of similar instruments from other institutes should be provided along with the availability of trained and efficient service engineers.

The tender document MUST enclose valid standard specification documents from the company and every specification must be a part of that standard document.

The valve diagram must be supplied with the tender.

For and on behalf of CSIR

Sd/-

Controller of Stores & Purchase

IMPORTANT INSTRUCTIONS

- INTERESTED FIRMS NEED TO SUBMIT PROPOSALS IN HARD COPY FORMAT LATEST **BY Dec.1, 2020**. WE MAY NOT BE ABLE TO CONSIDER PROPOSALS RECEIVED AFTER THIS DATE. THIS WILL NOT HOWEVER PREVENT YOU FROM PARTICIPATING IN THE OPEN TENDERING PROCESS, IF DONE SUBSEQUENTLY THROUGH GeM OR CPPP PORTAL.
- PLEASE NOTE THAT CSIR-IIP'S ITEM SPECIFICATIONS / PARAMETERS ARE BASED ON USERS RESEARCH REQUIREMENTS AND FUNCTIONAL NEEDS AND MAY INVITE THE FIRMS FOR PRE INDEPENDENT MEETING / PRESENTATION /DISCUSSIONS. INTIMATION RE. THAT SHALL BE SENT SEPARATELY BY EMAIL ONLY AND ALSO HOSTED ON CSIR - IIP WEBSITE. THERE IS NO NEED TO FOLLOW UP TELEPHONICALLY AND/OR THROUGH EMAIL.
- WRITE ON THE MAIN ENVELOPE 'EXPRESSION OF INTEREST' FOR 'ITEM NAME' WITH 'REF. NO.' AS GIVEN IN THIS BID DOCUMENT. THE ENVELOPE MUST BE ADDRESSED TO THE **CONTROLLER OF STORES & PURCHASE** AND SENT TO THE ADDRESS PROVIDED ON THE TITLE PAGE OF THIS DOCUMENT.
- SEND ONLY TECHNICAL LITERATURE / BROCHURE. THERE IS NO NEED TO ENCLOSE RECOMMENDATION LETTERS OR ANY OTHER DETAILS NOT CONCERNED WITH THE TECHNICAL ASPECT OF THE ITEM AT THIS STAGE. **PLEASE NOTE THAT NO FORMAL OPENING WILL TAKE PLACE AT A SPECIFIED DATE OR TIME FOR THE OFFERS RECEIVED AS THIS BEING PROSPECTING ACTIVITY IS JUST AN INFORMATION GATHERING / SEEKING EXERCISE AND NOT A TENDERING PROCESS.**
- THIS EXERCISE IS BEING CARRIED OUT TO GET DETAILED IDEA ABOUT THE TYPE OF SPECIFICATIONS, TECHNICAL PARAMETERS INDIAN MANUFACTURERS ARE WILLING AND ABLE TO MANUFACTURE AND / OR SUPPLY (IN PURSUANCE OF VARIOUS GOVERNMENT POLICIES / GUIDELINES / INSTRUCTIONS) FOR THE TYPE OF EQUIPMENT DESIRED TO BE PROCURED BY CSIR – IIP SO THAT CSIR – IIP CAN AVOID GOING FOR GLOBAL TENDERING AND ENCOURAGE DOMESTIC MANUFACTURING AND COMPETITION.
- **BEING A PUBLIC FUNDED ORGANIZATION CSIR-IIP IS ENTITLED TO CONCESSIONAL GST @5% AND CONCESSIONAL CUSTOMS DUTY PAYABLE UNDER...**
- OPTIONALLY FIRMS MAY ALSO ENCLOSE 'BUDGETARY OFFER' TO ENABLE US TO GET BROAD IDEA ABOUT THE PRICING. **PLEASE NOTE THAT THIS IS NOT A TENDER OR BIDDING PROCESS AND THE PRICES SENT BY YOU SHALL NOT BE USED TO MAKE PURCHASE DECISION AT ALL.** WE WILL FRAME ITEM SPECIFICATIONS & DETAILED BID DOCUMENT AFTER WHICH TENDERING PROCESS SHALL BEGIN. YOU MAY GET OPPORTUNITY TO PARTICIPATE IN OUR TENDERING PROCESS WHERE BID PRICES ARE ALSO REQUIRED TO BE QUOTED. **DISCLOSING BUDGETARY PRICES AT THIS STAGE IS PURELY OPTIONAL & FIRMS MAY SKIP THIS IF THEY FEAR LOSING COMPETITIVE ADVANTAGE AT THE TENDERING STAGE LATER.**
- WARRANTY, EXTENDED WARRANTY AND AMC OFFERINGS AVAILABLE (PERIOD OF COVERAGE AND ESTIMATE) SHOULD BE PROVIDED FOR ALL ITEMS.

For and on behalf of CSIR
Sd/-

CONTROLLER OF STORES & PURCHASE

