



सी०एस०आइ०आर०-भारतीय पेट्रोलियम संस्थान
CSIR-Indian Institute of Petroleum

(वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद)
(Council of Scientific & Industrial Research)

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Reference No.: IIP/PUR/1/22-23/278/EOI/GC-FID/SLJ/ASD/PO:

Date:30.08.2022

Subject: Invitation of Expression of Interest for “**Online High Temp. Gas Chromatograph with Flame Ionization Detector (GC-FID)**”

CSIR-Indian Institute of Petroleum (IIP), Dehradun, and ISO 9001-2015 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. CSIR-IIP has been working on several projects of National importance independently and also in collaboration with well-known Indian & foreign organizations.

This EOI is designed to explore the market and to finalize specifications based on technical discussions/presentations with the experienced Engineering/Fabricating companies/Firms in a transparent manner for “**Online High Temp. Gas Chromatograph with Flame Ionization Detector (GC-FID)**”.

E-BIDS for EOI are hereby invited through Central Public Procurement (CPP) Portal (<https://www.etenders.gov.in>) and only online offers will be entertained from the registered bidders of CPP Portal.

Reference No.: IIP/PUR/1/22-23/278/EOI/GC-FID/SLJ/ASD/PO:

Supply of “**Online High Temp. Gas Chromatograph with Flame Ionization Detector (GC-FID)**”

Last date of submission : 21.09.2022 by 3:00 PM

Date of opening : 22.09.2022 at 3:00 PM

Interested bidders may download the details from our Website: www.iip.res.in or on CPP Portal (<https://www.etenders.gov.in>).

For and on behalf of CSIR

S/d
Controller, Stores & Purchase

Subject: Invitation for Expression of Interest (EOI) for “Online High Temp. Gas Chromatograph with Flame Ionization Detector (GC-FID)”

CSIR-India Institute of petroleum (IIP), Dehradun an ISO 9001 Institute is one leading constituent under the council of scientific & Research (CSIR), engaged in R&D work in petroleum refining, natural gas and petrochemicals and contributing towards the creation of the state of the art technology & products. CSIR-IIP has been working on several projects of national importance independently and also in collaboration with well-known Indian organizations.

EOI are invited from reputed firms for supply of “**Online High Temp. Gas Chromatograph with Flame Ionization Detector (GC-FID)**” for CSIR-IIP, Dehradun. The entire part of Gas Chromatograph must be of same original equipment manufacturer (OEM).

Firms that have executed similar orders previously can apply along with documentary evidence for the same. The firms should also meet the other parameters as given below and required to submit the following information along with their applications:

- a) Name of the firm with constitution /proprietorship detail, etc with the date of establishment/ registration
- b) List of at least three similar orders completed in the last seven years as above with testimonials from the department concerned and the details of contact persons.
- c) The firm should not have incurred any loss in more than 2 years during the last 5 years ending 31st March, 2022.
- d) List of orders in hand giving details of department, and cost, date of start and completion with present progress, and the clients’ contact details.
- e) The certified Balanced Sheet and Profit & Loss account of the firm for the previous two years (2020-2021 and 2021-2022) must be enclosed with the offer.
- f) Please submit articles of Association along with the offer to outline the scope of activities and standing of the firm.

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 and any subsequent amendments thereto*** 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

Offers against this EOI containing the technical aspects and contractual terms and conditions of the proposed procurement without a bid price should be submitted in form of E-BIDS through Central Public Procurement (CPP) Portal (<https://www.etenders.gov.in>) and only online offers will be entertained from the registered bidders of CPP Portal. Last date of submission of EOI is **21.09.2022 by 3.00 PM.** and shall be opened on the **22.09.2022 at 3:00 PM.** Shortlisted firms shall be called for making a presentation at a later date.

If the Procuring Entity is of the view that after EoI stage, there is likelihood of further participation by many more bidders and to avoid getting trapped into a legacy technology, the second stage bidding may not be restricted only to the shortlisted bidders of EoI stage. In the second stage, normal OTE/GTE bidding may be done.

If any information furnished by the applicant is found incorrect at a later stage, it shall be liable to be debarred from tendering/taking up of work in CSIR. CSIR-IIP reserves the right to verify the particulars furnished by the applicant; independently. CSIR-IIP reserves the right to reject any prospective application without assigning any reason.

Technical specifications for “Online High Temp. Gas Chromatograph with Flame Ionization Detector (GC-FID)” having high resolution touch screen colour display and the capability of mounting three injectors & three detectors for CSIR-IIP, Dehradun. Specifications are as follows.

The material would include the following properties:

Specification for Online High Temperature Gas Chromatograph-FID (GC-FID)

Online High Temperature Gas Chromatograph with Flame Ionization Detector (GC-FID) having high resolution touch screen colour display and the capability of mounting three injectors & three detectors with the following specifications (product stream has high boiling components of carboxylic acids and related organic compounds): -

A) COLUMN OVEN:

Oven temp range up to 450°C

Maximum programmable temp ramps rates: at least 100°C/ min or better

Temperature set point resolution 0.1°C

Cool down rate: Oven cool down temperature should be less than 7 minutes

Retention time repeatability <0.0008 minutes or 0.008% or better

B) INJECTOR (Required No. 01)

Split/Splitless with Electronic Flow Control

- Pressure range : 0- 150 psi or better
- Max temperature : 450 °C
- Split range : 7500:1 or better
- Capability of mounting three injectors

C) DETECTOR (Required No. 01)

Flame Ionization Detector (FID)

- Max. Temp: 450 deg C
- Detectivity: 1.8pg C/sec.
- Linear dynamic range: 10⁷
- Data Acquisition Rate: 500 Hz or better
- Auto flame out detection
- Auto flame re-ignition
- Capability of mounting three detectors

D) Auto Sampler:

The Auto sampler should have capacity of 10 vials or more.

E) SOFTWARE:

- The software should be able to acquire data from all the detectors and should have a single point control of all gas chromatographic parameters
- The software should have the facility for interactive graphics, tool bar facility for online editing, recalculation, batch data processing, overlay, peak integration, S/N (signal to noise) ratio, programmable integration control, baseline compensation, options for continuous averaging of calibration data, weighted regression etc.
- All standard chromatographic parameters for qualitative and quantitative analysis should be available

F) PC and printer

- The system should be supplied with a branded computer (i-5, 8 GB RAM, 1 TB HDD, 21” TFT monitor) along with double sided printing printer with latest and required configuration for running the system software for data acquisition, data processing and data storing and printing purpose.

G) Column:

- Suitable Columns for analysis of hydrocarbons High temperature PDMS column or equivalent (30m X 0.25mm X 0.25 um; 2Nos.), High temperature 5% phenyl + 95% PDMS column or equivalent (30m X 0.25mm X 0.25 um; 2Nos.) and PEG column or equivalent (30m X 0.25mm X 0.25 um; 2Nos.)

H) Gas purification Panel

Warranty: 12 months warranty from the date of commissioning

For and on behalf of CSIR

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