

CPPP Tender ID : 2024_CSIR_204977_1

Minutes of Pre-Bid Conference (PBC) held on 22-08-2024 for proposed procurement of "Supply, installation and commissioning of "GC-MS instrument" - 1 No."

Chairpersons / Members of the Technical Sub Committee (TSC) present during PBC including domain experts present during PBC:-

1. Dr. N.Lingaiah, Chairman
2. Dr.PratyayBasak, Member
3. Dr.G.Jithender Reddy, Member
4. Sri. D. Venkateswara Rao, Member
5. Dr.SreepriyaVedantam, Member
6. IO/PL representatives: Dr C. Chandra Sekhar

Representatives of the following firm attended the PBC:

1. M/s Smart Lab Tech Pvt., Ltd., (Representative of Varian GCMS System)
2. M/s Camtek Labs (Representative of Agilent GCMS system)

The following points were discussed during the PBC:

Query raised by M/s. Camtek Labs, and response of CSIR-IICT:

Query -1: GC Mainframe (8 .Fast data transfer, acquisition speed 300 Hz or more-able to "Catch" very sharp peaks) in the revised specifications 500 Hz is recommended

Response: In the revised GCMS specifications, we amended acquisition speed 300Hz to 500 Hz

Query-2: MS Detector with EI source (3. Detector: Electron Multiplier with low noise overdrive lens giving dynamic range 8×10^7 or better) in the revised specification 1×10^6 or better Extended Dynamic Range is recommended

Response: In the revised GCMS specifications the amendment was made accordingly

Query-3: MS Detector with EI source (6. Inert Ion source: The mass spectrometer must use an ion source where the metallic parts are constructed from inert material. Ion source temp controllable form 140-350^oC or better stainless steel is not acceptable) in the revised specification ion source temperature is recommended as 150-350^oC rather than 140-350^oC

Response: In the revised GCMS Specifications the ion source temperature was amended accordingly.

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Query raised by M/s. Smart Lab Tech Pvt., Ltd., and response of CSIR-IICT

Query 1. GC Mainframe (8 . Fast data transfer, acquisition speed 300 Hz or more-able to "Catch" very sharp peaks) In the revised specification acquisition speed of 300 Hz to 500Hz was recommended

Response: In the revised GCMS specifications, the amendment was made accordingly.

Query 2. GC Mainframe (12. Flame Ionization Detector)In the revised specification one FID detector was recommended

Response: In the revised GCMS Specifications the amendment was made accordingly.

Query 3. Split/Splitless Injector: In the revised specification 2 injectors were recommended

Response: In the revised GCMS specifications the amendment was made accordingly

Query 4. Auto Sampler: In the revised specification auto sampler with tray of of more than 16 vials instead of 16 or Equivalent was recommended

Response: In the revised GCMS specification the amendment was made accordingly

Query 5. MS Detector with EI source (1 pg OFN, m/z 272 should give S/N > 2000:1 or better for the entire mass range (Helium carrier gas)±0.1 amu/48 hours) in the revised specifications 1500:1 was recommended instead of 2000:1

Response: In the revised GCMS specifications the amendment was made accordingly

Query 6. MS Detector with EI source (3. Detector: Electron Multiplier with low noise overdrive lens giving dynamic range 8×10^7 or better) in the revised specification 1×10^6 or better Extended Dynamic Range is recommended

Response: In the revised GCMS specifications the amendment was made accordingly

Query 7. MS Detector with EI source (6. Inert Ion source: Ion source temperature controllable in the range of 150-350°C was recommended instead of 140-350°C

Response: In the revised GCMS specifications the amendment was accordingly.

Query 8. MS Detector with EI source (10. Filament: Dual (Automatic Switching during analysis) In the revised specification Filament: Dual with automatic switching was recommended

Response: In the revised GCMS specifications the amendment was made accordingly

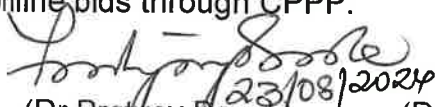
Query 9. Software for control of GC as well as GCMS: (02. Audit trail) In the revised specifications Audit trail in the GCMS instrument was recommended to be removed

Response: In the revised GCMS specifications the amendment was made accordingly

C. Chandu Sekhans

Points clarified by CSIR-IICT Team during PBC:


The representatives of the participating firm/further informed that they do not have any issue or suggestion with respect to other points of tendered specifications and related requirements given in the tender document. Participating bidders have been informed that points raised by them during PBC will be examined by CSIR-IICT's **Technical Sub Committee (TSC)/Technical team** constituted for the purpose of procurement of said equipment and **post PBC changes** in tendered specifications and requirements to be agreed after due consideration of the same by TSC, **if any**, will be uploaded in CPPP as part of **revised/amended tendered specifications** along with CSIR-IICT website www.iict.res.in or before 23.8.24. All bidders are requested kindly to take a note of the changes, if any, in tendered specifications subsequent to **PBC** held today, i.e. 23-07-2024 before they start submitting their online bids through CPPP.


(Dr. Pratyay Basak)
Member



(Dr. Jithender Reddy)
Member


(Dr. Sreepriya Vedantam)
Member


(Sri. D. Venkateswara Rao)
Mohan)
Member


(Dr. C. Chandra Sekhar)
IO (on behalf of Dr SVM)


(Dr. S. Venkata)
PL


(Dr. N. Lingaiah)
Chairperson

File Ref. No. PUR/IICT/DMS/0071/RE/24-25
2024

Dt: 22-08-

CPPP Tender ID : 2024_CSIR_204977_1


The following changes has been made in tendered specification subsequent to PBC held on 22.08.2024

S. No.	Existing Specifications	Revised/Amended Specifications
1	GCMS instrument specification 07-08-2024 (enclosed)	GCMS instrument amended specifications 22-08-2024 (enclosed)


All the other tender terms remains unchanged. Bidders may please submit their bids accordingly.


(Dr. Pratyay Basak)
Member



(Dr. Jithender Reddy)
Member


(Dr. Sreepriya Vedantam)
Member


(Sri. D. Venkateswara Rao)
Member


(Dr. C. Chandra Sekhar)
I/O on behalf of Dr SVM


(Dr. S. Venkata Mohan)
P/L


(Dr. N. Lingaiah)
Chairperson

Chapter 4

Pur/IICT0071/RE24-25/EQPT

Specifications and Allied Technical details for Supply, Installation and Commissioning of "GC-MS instrument"

End Use: The proposed instrument is crucial for the identification and quantification of plastic monomers and oligomers in environmental samples for DBT project. It will also play a important role in bioremediation studies involving microbial processes, both at the lab and pilot scale, across various DBT, DST, and CSIR projects in the Department of Energy and Environmental Engineering.

Scope of Supply, specifications and incidental works : as detailed below-

GC Mainframe:

1. Gas Chromatograph with advanced/Electronic Flow Control for Simultaneous Pressure, Temperature and Flow Programming
2. Large Column Oven with Temperature range from ambient +4°C to 450°C or better
3. Temperature Accuracy:±1%
4. Temperature Uniformity of $\leq 2^{\circ}\text{C}$
5. Graphical user interface with large LCD display/Touch screen display
6. Constant Pressure/Constant flow mode
7. Self-diagnostic function with GLP/GMP support
8. Fast data transfer, acquisition speed 500Hz or more –able to "Catch" very sharp peaks
9. The maximum heating rate should be 100°C/min or better
10. Fast Oven cooling speed 450°C to 50°C within 5 minutes or better
11. System should have the capability to accommodate Narrow Bore (0.1 mm i.d) to Wide bore capillary Columns (0.53 mm i.d) Columns or better
12. Flame Ionization Detector, quantity required 01 nos

Split/Splitless Injector: Quantity required 02 nos

1. The split ratio setting range: 0-9999.9 or higher
2. Number of temperature programming steps: 7 or higher

Auto Sampler:

C. Chandea Sekhara

[Signature]

1. The system should have a robotic auto sampler with a tray of minimum 16 vials or more sample rack.
2. Injection volume linearity: should be $\pm 0.5\%$

MS detector with EI Source:

1. **Sensitivity EI Scan(Installation Checkout):** 1 pg OFN, m/z 272 should give S/N > 1500:1 or better for the entire mass range (Helium carrier gas) ± 0.1 amu/48 hours
2. **Mass stability :** ± 0.1 amu/48 hours
3. **Detector:** Electron Multiplier with low noise Overdrive lens giving dynamic range of 1×10^6 or better Extended Dynamic Range
4. **Detector Type:** suitable electron multipliers or equivalent detector to reach the required sensitivity
5. **Scan rate:** The mass Spectrometer shall have an electronic scan rate of 20,000 u/sec
6. **Inert Ion source:** The mass spectrometer must use an ion source where the metallic parts are constructed from inert material. Ion Source temp controllable from 150-350°C or better stainless steel is not acceptable.
7. **Mass Range:** The instrument must scan from 0.6 to 1090 U or better
8. **SIM Capacity:** The mass spectrometer shall have the capability to create 100 SIM ion
9. **SIM speed:** Down to 0.1 m sec
10. **Filament:** Dual (Automatic Switching)
11. **High vacuum pumping Speed:** The high-vacuum region must utilize an air-cooled high vacuum turbo pump with a minimum pumping speed of 255 L/s (Helium)
12. There should be provision for Hydrogen and Nitrogen gas to be used as carrier gas apart from Helium.

Software for Control of GC as well as GCMS:

1. 64 bit windows based Software should provide Single point control of all GC Parameters, Injectors and detectors.
2. Software should have Security, System check, software integrity and System Suitability test should be included as standard functions.
3. Flexible report format i.e for Method, Chromatogram, Mass Spectrum, Peak table, Quantitation result, calibration curve, Status Log, texts, graphics
4. It should provide automated tuning and file management functions with Library Search Facility
5. There should be User friendly post run analysis facility with flagging
6. Complete Software control of vacuum system with Auto start-up/shut-down and vacuum protection against power failures.

Warranty: 3 year Warranty

C. Chandra Sekhara
[Signature]

Basic GCMS system with upgradable model

Inspection & Tests

Will be done to check the efficiency and efficacy of the contractual supply, if required.

General

1. Total cost must include 36 months comprehensive onsite **Warranty** (labor+parts, etc.,) on the complete system.
2. Total Price must include transportation and complete installation, commissioning, demo and training of the unit(s) at user end.
3. Availability of spares and service engineer support shall be confirmed for a period of 10 years as part of after sales service support on applicable charges.
4. Technical presentation/demonstration of the offered equipment as per tendered specification need to be provided, if so required by CSIR-IICT.
5. List of users (Govt. Of India Institutes/CSIR Labs. And other research/academic organizations) of the same/similar models as the one(s) offered along with the names, addresses, telephone numbers and e-mail ID's to be enclosed. Supplier may also facilitate IICT user to see the working condition of similar or offered equipment with existing customer, if available.
6. The Supplier shall at its own expense and at no cost to the purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified here.
7. The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination. Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the purchaser.
8. The purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the purchaser or its representative.

C. Chandra Sekhara



