

**CENTRAL INSTITUTE FOR RESEARCH ON COTTON TECHNOLOGY
(INDIAN COUNCIL OF AGRICULTURAL RESEARCH)
ADENWALA ROAD, MATUNGA, MUMBAI – 400 019.**

Gram: TECHSEARCH

Tel. No: (022) 24127273 / 76
(022) 24184274 / 75
Fax No.: (022) 24130835
(022) 24157239

Tender Ref. No.: Admn II/Tender/01/ Plasma

Date:

TENDER NOTICE

Sealed tenders are invited from Reputed Firms/Authorized Dealers/Indian Agent for supply of the following items:

Sr. No.	Description	Qty.	Delivery Place
1	Gas chromatography-mass spectrometry (GC-MS) System	1 One	CBPD C.I.R.C.O.T. Matunga, Mumbai – 19

Tender documents with detailed specification and terms and conditions can be had in person or through post from the Asstt. Admin. Officer (Adm.II) on payment of Rs.1000/-(Rupees One Thousand only non refundable) by cash or draft. **The draft towards tender document and cost of EMD @ 2% should be from any Scheduled bank drawn in favour of ICAR Unit : CIRCOT payable at Mumbai.**

The tender document can also be downloaded from our website <http://www.circot.res.in> and D.D. towards cost of downloaded tender document to be submitted with the tender.

Tender conditions are given in the Tender Documents.

Last date for issuing tender documents in person	14.02.2012	Up to 4.00p.m.
Last date for issuing tender documents by post	15.02.2012	-do--
Last date for tender i.e. due date	15.02.2012	-do--
Date of opening tender	16.02.2012	11.30 a.m.

Sd/-
Asstt. Administrative Officer(AdmII)

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Tender Ref. No.:Admn II/Tender./01/Plasam

Price per set of Tender Rs. 1,000/- (Rs. One Thousand only)
EMD: 2% of value quoted

	Date	Time
Submission of Tender	15.02.2012	Upto 04.00 p.m.
Opening of Tender	16.02.2012	11.30 a.m.

Sr. No.	Description	Qty.	Delivery Place
1	Gas chromatography-mass spectrometry (GC-MS) System	1 One	CBPD C.I.R.C.O.T. Matunga, Mumbai – 19

Indicate discount offered if any: _____

Indicate:

- (i) the rate/quantum at excise duty (if applicable)
- (ii) Other taxes and total quantum of taxes:
- (iii) Octroi, (if any):

**TOTAL NET COST INCLUDING ALL TAXES INVOLVED
IN INDIAN CURRENCY:
IN FOREIGN CURRENCY:**

In the absence of non-indication of Total Net Cost (either in Indian Currency or in foreign currency) the Tender is liable for rejection
(We do not issue any kind of concessional Tax/Octroi Form except Excise Duty Exemption and Custom Duty Exemption Certified)

Name (In block letters)

Capacity in which tender signed

Address in full

With Telephone and Fax No., if any

(SIGNATURE OF TENDERER)

TENDERERS SHOULD FURNISH SPECIFIC ANSWERS TO ALL THE QUESTIONS GIVEN BELOW. TENDERES MAY PLEASE NOTE THAT IF THE ANSERS SO FURNISHED ARE NOT CLEAR AND/OR ARE EVASIVE, THE TENDER WILL BE LIABLE TO BE IGNORED.

Tender No.

Due for opening on

Offer is open for acceptance till

Whether the stores offered fully conform to the technical particulars and specifications/Drawings specified by the purchaser in the schedule to Tender. If not, mention here details of deviations.

Brand of stores offered

Name and address of manufacturer

Please confirm that you have offered packing as per tender enquiry requirements. If not indicate deviations.

Weight of consignment

Please give your permanent Income Tax A/c No. and Current Income Tax Clearance certificate.

Please indicate name and full address of your Banker.

Please indicate firm dates by which date delivery, erection and commissioning can be completed

Business name and Construction of the firm. is the firm registered under

The Indian Companies Act,1956

**The Indian Partnership Act,1932
(Please give the names of Partner)
any other act; in that case give the names
of the owners with addresses**

Whether the tendering firm is are

Manufacturer

Manufacturer's authorized Agents, in that case please enclose with tender the copy of manufacture's authorization

Holders in stock of the stores tendered for

Please state whether the inspection clause is acceptable to you

Here state specifications:

Whether the price rendered by you is to the best of your knowledge and belief, not more than the price usually charged by you for stores of same nature/class or description to any private purchase either foreign or as well as Govt. purchaser. if not state the reasons thereof. Also indicate the margin of difference

State whether business dealings with you have been Banned by Min. Deptt. Of supply

Please confirm that before submission of Tender you have read all the instructions and terms and conditions of Tender carefully and have complied with accordingly.

Signature of witness : Signature of Tenderer

Full Name & address of Witness in Block letters

Full name &Address of the person signing (in Block letters)

Date:

Place:

Whether signing as Proprietor/Partner Constituted Attorney/ dully authorized by the Company

TERMS AND CONDITIONS OF TENDER

1. Tenders are also required to note the following for compliance and submit their tenders accordingly. Non-compliance of the following will make the tender liable to be ignored/rejected.
2. Specifications of the stores to be supplied are as per "sheet enclosed"
3. Stores are required at Central Institute for Research on Cotton Technology (CIRCOT), Adenwala Road, Matunga, Mumbai-400 019
4. Inspection : The inspection authority is the Director, CIRCOT, Mumbai. The inspection of the items supplied will be done at Mumbai by the inspection authority or his representative.
5. Delivery is required immediately.
6. Tenders are required to quote strictly as per our technical specifications. Deviations to the specifications of any must be brought out clearly giving a deviation statement.
7. Quotation as well as enclosures is to be supported with technical details.
8. Tenderers will give complete break-up of the prices of each items of store including the final CIF value the ex-works price of the foreign principals packing and handling/FOB charges by air freight. Also the station of dispatch is to be indicated.
9. In case the tenderer is a foreign firm quoting direct, they should give the name & address of their Indian Agents/Associates Representative for servicing in India.
10. Indian Agents should give their Income Tax Permanent Account Number and also latest income Tax clearance Certificate.
11. The tenderer should guarantee suitable packing to avoid loss/damage during transit.
12. This tender is non-transferable.
13. Sales Tax : If it is desired by the tenderer to ask for sales tax to be paid extra, the same must be specifically stated. In the absence of any such stipulation in the tender, it will be presumed that the prices quoted are inclusive of sale tax and not liability for payment of sales tax will be levied upon the purchaser.
14. The total net price including all taxes, etc., as on date, should be indicated in words and figures.
15. ii) Excise Duty : This Institute having valid Excise Duty Exemption under Govt. Notification No. 10/97 Central Excise dated 1st March, 1997.
16. The Indian agents should unequivocally state that they are regular authorised selling agents for the Principals on whose behalf the quotations have been submitted. They must also indicate whether the Principals named in the tender are the actual manufacturer abroad and not their authorised export agents. In the latter case the tender will straight away be ignored. To qualify as a regular authorised selling agents that agency agreement date with the foreign Principals should be not later than the indent date stipulated in the tender inquiry. The agents should submit an authorisation certificate from their Principals/Manufacturers.

- 17.(a) In case , after consideration to Tenders received, an order is placed to supplier should be in a position to give necessary bank guarantee for an equivalent amount till the successful installation of the item ordered.
- (b) If the tenderer is not in position to give a bank guarantee for an equivalent amount he need not submit the tender.
18. (i) Guarantee Period : Not less than 12 months after Commissioning of Equipment/Machinery.
19. (ii) The supplier should also give a guarantee for after sales service for a period of 3 years. Only those supplier who can give an assurance for after sales service need to submit the Tender/Quotation for supply of the items advertised.
20. One set each of the Operating Instruction Manual and Service Manual should be delivered along with the equipment.
21. The date of DD should not be prior to the date of this Tender Notice.
22. CIRCOT will not be responsible for Postal delays/loss of documents in transit.
23. The price/rate quoted should be preferably in Rupee currency.
24. Right to accept or reject the tender in full/part thereof without assigning any reason is reserved.
25. No request for the extension of the due date will be entertained.
Envelope containing the Tender should be superscribed as "Tender for **Gas chromatography-mass spectrometry (GC-MS) System** "due on..15.02.2012"
26. The quotations must include a printed catalogue of the related items giving all its salient reatures.
27. List of institutes/organizations, where the unit has been supplied may be given.

Director
Central Institute for Research on Cotton Technology (CIRCOT), Mumbai

TENDER INSTRUCTIONS

Please read carefully

1. Detailed specifications are available in Tender documents.
2. Please do mention Tender No. and due date on the envelop while requesting for Tender documents.
3. CIRCOT will not be responsible for any postal delay / loss of documents in transit.
4. The tender received within the due date / time will be opened on 16.02.2012 at 11.30 hrs.
5. Right to accept or reject any of the Tender In full / part thereof without assigning any reason is reserved, with the Director, CIRCOT.
6. In case the Tender opening day happened to be a holiday then the Tender will be opened in the next working day.
7. Net cost including Octroi Taxes, Transportation, etc. should be clearly indicated on the 1st page of Tender Form.
8. Details of after – sales – services after the guarantee period should be indicated separately. Servicing of the equipments at concessional rate of a minimum period of least 3 years.

MODE OF RELEASE OF PAYMENT (IN SHORT)

1. In case of Imported Stores:
 - (a) Through Irrevocable Letter of Credit.
 - (b) Either Principal or their Indian Agent to produce performance Guarantee to the tune of 20% of value of Store for a period of one year i.e. during warranty period.

2. In case of indigenous Stores:
 - (a) 20% payment can be released (if the supplier demands) along with the P.O. / (provided the supplier furnishes a Bank Guarantee equivalent to 10% of cost of stores)
 - (b) Balance 60% against delivery of stores in good condition and as per specification.
 - (c) Bank Guarantee (a) will be released when delivery is made.
 - (d) Balance 20% after successful installation / commissioning.
 - (e) Before release of balance 20% (refer (c) above), the supplier has to furnish a performance Guarantee equivalent to 20% of cost of Equipment/Machinery/Instrument.

Technical Specification

Specifications of Gas chromatography–mass spectrometry (GC-MS) System

Bench-top quadrupole transmission based **Gas chromatography–mass spectrometry (GC-MS)** system. Gas Chromatograph should provide all the important information such as Temperature, Pressure/ Flow parameter, flow rates, type of carrier gas, split flow, and all detector parameter. The system should be assembled with suitable programmable electronic controller and/or software for sample injection, running and data analysis. The Gas Chromatograph, Mass Spectrometer, Head Space, Gas sampling system *etc* from the single vendor would be preferred to avoid the questions of service and maintenance responsibility in future. **The supplier should provide Details of Local items & Prerequisites offered separately in Indian Rupees.**

<u>Mass Spectrometer</u>	
Mass Range	1 or 2 to 1050 a.m.u. or more with unit mass resolution
Analyzer	Single Quadrupole system with pre-filter/pre-rod (required to eliminate neutrals) Metallic quadrupole must be robust enough to allow cleaning of any contaminates
Pumping System	High capacity efficient turbo molecular pump (TMP) or Differential turbo molecular pump with approximately 250 L/sec capacity to build the required vacuum within minimum time The TMP with more capacity of will be preferred
Ionization modes	Electron Impact Ionization (EI) and Chemical ionization: Both PCI and NCI
Ion source type	Must be able to be removed directly from the front of instrument. Must contain components that can rapidly be exchanged both between EI/EI as well as EI/CI.
Detector	Electron Multiplier Tube
Interface Temp	Up to 300 °C or better
Source operating temp	Must be settable from 50 °C to 300 °C or better
GC Transfer line	Must have independent temperature control over the same range as the ion source.
Scanning Mode	The system should be able to perform selected and full Ion scanning mode for simultaneous data acquisition
SIM/Scan	Automated SIM & SIM/Scan operation simultaneously Must be able to acquire intermixed and time-overlapping full scan and SIM data for maximum sensitivity.
Sensitivity for EI	S/N = 700:1 or better for 1 pg OFN

mode	
Sensitivity for PCI	S/N = 500:1 or better for 100 pg of benzophenone
Sensitivity for NCI	S/N = 500:1 or better for 100 fg OFN
Data management	Must be able to library search compounds from a chromatogram (commercially available or user generated) and use the information to propose possible structure of the molecule or construction of quantitation methods
Libraries	Licensed and/or certified latest version of NIST library would be preferred Others library may also be quoted as an optional item
Dynamic Range	Must have a linear dynamic concentration range approximately 10 ⁶ Better
Scanning Rate	12,000 amu/sec or better
Resolution	Unit Mass
Vacuum Gauge	Must come standard with a wide-range gauge capable of measuring from 75 to 10 ⁻⁹ torr.

Gas Chromatograph system

General requirement	The GC must be Fully Automated Microprocessor controlled GC with 6 port valve assembly.
Different controller	GC shall have Electronic Flow Control / Electronic Pressure Control / Programmable pneumatic control / Advanced Flow Control for the pneumatic zones i.e. both injector and detector.
Channel and display	Must be dual channel with real time chromatogram display in LCD
GC oven temperature range	Ambient to 450 °C with user selectable
Ramp rate	Up to 120 °C/ min. or better
Ramps	At least 08 ramps or more programming steps
Oven Size	Capable to accommodate 2 Capillary Columns simultaneously or One capillary and one packed column
Cooling of GC oven	GC oven must be capable of fast cool-down from 450 °C to 50 °C within 5 minutes or less time period
Injector type and number of points	Two (2) injector ports It should also have back-flush facility Programmable Temperature Vapourizer Injector / Programmable Split/Splitless Injector : Maximum temperature : 450 °C, 2 or more ramps with heating rate of 200 °C or more. Should have capability of large volume injection of 50 µL or more. Capillary column injector.
Pneumatics Injector	Programmable electronic control for injectors with single point control via software. Automatic leak testing facility and three (3) ramp pressure program.

Split/Splitless Injector (01 No.) (two injectors if possible)	<p>Programmable Split/Split Less Injectors to operate with micro bore to wide bore capillary columns</p> <p>Temperature setting should be done up to 400 °C or better in 1 °C increments or better. Split ratio setting range: 1:100 or better. Total flow rate setting range: 0 to 100 mL/min or better. Pressure setting range: 0 to 680 kPa/100 psi with 3 or more steps programming.</p>
Sample Injection System	
Liquid Auto-sampler	<p>To inject liquid ranging from 0.1 µl to approximately 30 µl with variable speed & varying syringe sizes and must be operated through software.</p> <p>Capacity of 40 or more samples vials.</p> <p>It should have capability of injecting into both the injectors without manual intervention.</p>
Gas Sampling Valve	<p>Party should quote minimum 6 or more ports gas sampling valve for injection of gaseous sample.</p> <p>Suitable system to collect the gas/mixture of gases from the atmospheric pressure plasma zone in a gas tight syringe or gas reservoir balloon and followed by injection directly into the injector or gas sampling valve would be preferred.</p>
Headspace for solid & semisolid sample, mixture of two liquids sample, or sample contaminated with particulate matter.	<p>Automated headspace sampler should have tray capacity of 25 vials or higher</p> <ul style="list-style-type: none"> • Oven Temperature range for Transfer line/Sample up to 200 °C or better. • Should have an enclosed sampling design without exposure to atmosphere. • System must have transfer line technique to avoid exposure to atmosphere/contamination. • Must be easy to change the injection volume without any hardware changes or internal tubings. It should be controllable through software. • Should have graphical colour display to show the headspace parameters at a glance. • It should have overlapping thermostated facility to reduce the analysis time with 10 vial or higher capacity oven. • Head space sampler with built in shaking provision for various kinds of samples should be quoted (As an optional item) • System must be controllable through software • The system should be quoted with starter kit containing at least 200 number of 20 mL or equivalent vials, caps,

	septa, springs, headspace needle, O-rings, hand crimper for sealing vials etc.
Detectors	
Flame Ionization Detector (FID) – 01 no	Operating temperature from up to 450 °C or equivalent It should have minimum detection limit of 3×10^{-12} gC/sec or better Dynamic linearity – 10^6 or better
TCD detector- 01 no	It should be quoted with software protection to prevent filament burnout Minimum detection quantity should be < 1ppm nonane or equivalent Dynamic range: 10^5 or better Temperature range : up to 350 °C or better
Electron capture Detector (ECD) – 01 no	Detection Limits ~7 fg/ml Lindane or better Dynamic linearity – 10^4 or better Operating temperature from 100 °C to 400 °C or equivalent This detector should be quoted and to be used depending upon the requirement
Mass detector	Electron Multiplier as mentioned above
Others Important Items for GC-MS system	
Detector splitter-	System should be provided with electronic flow controller and/or splitter for detection in GC and MS system the simultaneously. The GC should be quoted with facility of detector switching of choice (i.e. FID and MS) anytime during run or between injections.
Software	GC & MS Software must be user friendly and easy to operate and control most of the parameters of GC-MS/GC. GC software should be compatible with Windows 7/XP
Capillary columns and /or packed columns Total 04 Nos.	Two columns (2) would be used simultaneously with 2 detectors of GC or one with GC and other one with GC & MS Injection point: Two (2) to enhance the productivity. Suitable column must be quoted for various gases such as Nobel (He, Ar etc.), common gases (N ₂ , Air, CO ₂ , NH ₃ , O ₂ etc) and reactive and non-reactive hydrocarbon, fluorocarbon and silicone based gaseous and vapour sample Suitable compatible column must be quoted for various types of liquids such as ionic polar and non-polar. Based on the above samples to be analyzed, suitable compatible capillary columns must be quoted. If packed

	<p>column is required, it must also be quoted. The most popular and commonly used capillary column must be quoted three or four (3/4) in Nos. Three (3), if one capillary column is used.</p> <p>Preferable: 01 no. Polar columns + 01 no. non polar columns + others 02 no. (important and commonly used)/01 packed and 01 commonly used.</p> <p>The system should be quoted with suitable columns for the analysis of gaseous and vapour sample as mentioned above, namely DB-5 capillary column or equivalent (30 m), DB-624 column or equivalent (30 m), Molecular Sieve PLOT Column or equivalent.</p>
General Requirement for GC-MS system	
Spares/Consumables:	All the important spares and consumables items for the two years should be quoted for smooth running of the equipment
Maintenance	The equipment should be easy to operate and maintain. Preferably, it should have front access for opening filament, Ion source, and prefilters/prerods <i>etc.</i>
Training and customer support	Supplier should provide user training at site to the user Customer support centre should be in Mumbai or near to Mumbai
Water purification unit for Type I RoDi ultrapure water to be used for GC-MS sample preparation	The input water must be tap water and output water would be ultrapure Type I water according to ASTM D1193, ISO 3696, or equivalent standard. Capacity of production: Up to 15 lit/day The system should be automatic
U.P.S. for running the GC-MS system	Branded U.P.S. of around 10 kVA capacity with back-up of around 60 min. or more must be quoted
Gas cylinders with regulators	Gas cylinders with regulator required for ionization by EI, NCI, PCI and for detector such as MS, FID, TCD, ECD such as Helium (He), hydrogen (H ₂), Methane (CH ₄), Air or any other cylinder (if required) must be quoted
Gas filtration & distribution station with moisture trap	Gas filtration and distribution line for the above mentioned gases must be quoted
Computer and printer	Branded compatible computer with required configuration must be quoted for running the GC-MS system smoothly Branded compatible colour laser jet printer must be quoted for report generation
Miscellaneous	Any other important accessories (if any) may be quoted for running the GC-MS system
Warranty	Warranty period of the equipment must be quoted and it should be minimum one (1) year.

Terms and Conditions

Quotation should be submitted in sealed cover envelope superscripted "**Quotation for the Gas chromatography–mass spectrometry (GC-MS) System, Due on 15-02-2012**" So that it can reach to our Institute on or before 15-02-2012

1. The quotation without above superscription on the cover will not be considered.
2. The quoted model must be compatible with Indian power supply: **230 Volts/50Hz A.C. supply.**
3. Validity of quotation should be indicated.
4. Quotation received by fax will not be accepted.
5. We do not issue any kind of concessional forms except excise duty.
6. The party should quote the price for the above mentioned material. They should also quote separately the delivery and installation charge, if any.
7. Delivery period should be specifically mentioned and it should be as small as possible.
8. Warranty terms and conditions must be specified clearly.
9. **Original brochures/equipment manual/relevant document** of the quoted model should be enclosed along with the supporting data with the quotation.
10. Institute reserves the right to order equipment with better quality over lower price and to accept or reject any or all the quotations without assigning reasons thereof.