



केन्द्रीय औषधीय एवं सगंध पौधा संस्थान, लखनऊ  
CENTRAL INSTITUTE OF MEDICINAL & AROMATIC PLANTS  
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)

(Council of Scientific & Industrial Research)

पोस्ट आफिस- सीमैप, लखनऊ  
P.O. CIMAP Campus, Lucknow-226015

Date: 30.01.17

**Corrigendum**

In continuation of our tender for procurement of Gas Chromatography coupled with mass spectrometer & Supply, Installation, Testing and Commissioning of IP CCTV Based Video Surveillance Solution at CSIR-CIMAP, Campus, Lucknow dated 10.01.17 and consequent upon the pre bid meetings held on 20.01.17, 11.00 Am & 2.30 PM the competent authority has approved some modifications in the technical specifications of the tender. The last Date of submission of bids is extended till 13.02.2017, 2.30 PM. The Technical Bid for the above tenders will be opened on 13.02.2017, 3.30 PM. For details please visit CIMAP website [www.cimap.res.in](http://www.cimap.res.in).

The rest of the terms and conditions of the tender document remains unchanged.

Stores & Purchase Officer



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**शुद्धिपत्र**

गैस क्रोमैटोग्राफी कपल्ड विद मास स्पेक्ट्रोमीटर और सप्लाई, इंस्टालेशन, टेस्टिंग और कमीशनिंग ऑफ आईपी सीसीटीवी बेस्ड विडियो सर्विलेन्स साल्यूशंस एट सीएसआईआर-सीमैप, कैम्पस, लखनऊ के क्रय हेतु जारी निविदा दिनांक 10.01.17 के क्रम में दिनांक 20.01.17 को क्रमशः 11.00 पूर्वाह्न एवं 2.30 अपराह्न को आयोजित पूर्व बोली बैठक के संदर्भ में सक्षम प्राधिकारी ने तकनीकी विशिष्टताओं में कतिपय संशोधन अनुमोदित किया है। बिड जमा करने की अंतिम तिथि 13.02.17 अपराह्न 2.30 बजे तक होगी। तकनीकी बिड दिनांक 13.02.17 को अपराह्न 3.30 बजे खोली जाएगी। संबंधित विस्तृत विवरण सीमैप की वेबसाइट [www.cimap.res.in](http://www.cimap.res.in) पर उपलब्ध है।

निविदा की शेष नियम और शर्तें यथावत रहेंगी।

भंडार एवं क्रय अधिकारी

## Specs after Pre Bid Conference

### **Specifications for Gas Chromatograph coupled with Mass Spectrometer (GC-MS)**

Gas Chromatograph coupled with Quadrupole Mass Spectrometer with following technical specifications:

Vendor to offer All required Pre requisites for complete working & Installation of GC-MS System. Branded PC (Dell /HP/IBM ) Monitor 21 inch, Laser Printer, work station facility. Data Handling & Reporting with Licensed Software for full control of the system. Supplier to provide details on local items & prerequisites offered separately.

#### **Gas Chromatograph:**

Software controlled Gas Chromatograph and easy integration with mass spectrometer and headspace.

1. Oven should accommodate two capillary columns
2. Oven Temperature range: Up to 450°C
3. Temperature set point resolution better than 1°C
4. Oven Cool down rate should be less than 5 minutes **or better**.
5. Back flush facility to enhance the column & detector life.
6. Pressure setting point should be 0.01 psi or less.
7. Two **programmable** injectors with variable split ratio for fused silica capillary column.
8. **Programmable** injector temperature 350 °C.
9. Septum purge facility : Gas saver mode to reduce helium gas consumption.
10. GC should have provision of EPC / APC/ PPC **or equivalent features** for both injectors.
11. **Injector** starter kit, which includes quality PTFE injector septa, stainless steel nut, liner etc.

#### **Mass Spectrometer:**

1. System should be compact and offer highest sensitivity with working mass range of 1000 Da or more with standard calibration mixture. True simultaneous SIM and scan.
2. Ionization modes:  
Electronic Ionization (EI) and Positive and Negative Chemical Ionization (PCI/NCI).
3. Ion Source:  
Source temperature up to 300°C or more with quick change over for EI/CI mode
4. Mass Analyzer:  
Quadrupole with pre and post filters, high ion transmission efficiency and pre filter with facility for active ion beam focusing eliminates neutral noise and offers best sensitivity **or suitable feature/technology to achieve the same**.
5. Resolution: unit
6. Turbo molecular pump:  
Turbo molecular pump 250 liters / sec or higher capacity preferable for fast vacuum & easy & quick change over from EI to CI. Column change in MS without venting the vacuum
7. Electron Energy: 10 to 100 Electron Volt (eV)
8. Detector : With good negative ion sensitivity and No detector calibration.
9. Latest Licensed Libraries to be quoted with (NIST, Wiley), User Customizable library & automatically searching of Multiple Libraries.
10. It should offer Auto tuning in all ionization modes & should remain tuned for longer time avoiding frequent tuning for better system performance.
11. Reagent Gas for CI should be Methane. Methane cylinder with SS body regulator should be supplied with all clearance certificates. Carrier gas for EI should be helium. Helium cylinder with SS body regulator should be supplied with all clearance certificates.
12. Performance Specification with capillary injector should be as given below or better :

Mode	Test	Specification
EI Scan	1 pg Octafluoronaphthalene (OFN) from m/z 50 to 300 for m/z 272	S/N $\geq$ 750:1
PCI Scan	100 pg Benzophenone (BZP) from m/z 80 to 230 for m/z 183 or better with methane	S/N $\geq$ 250:1
NCI Scan	200 fg OFN for m/z 272 Or better with methane	S/N $\geq$ 600:1

#### Headspace sampler:

1. Pneumatic control (EPC, PPC or APC) head space with deactivated fused silica capillary in transfer line.
2. Injector volume: 1ml
3. Vial heating temperature > 150 °C
4. Preferably valve and loop temperature should be > 150 °C
5. Headspace Vials 10 to 20 ml capacity. Adapter free.
6. Automatic leak check.
7. Head space starter kit.
8. Twelve vials should be simultaneously thermostated

#### Other requirements:

1. Fused silica capillary columns (30m x 0.25mm x 0.25 $\mu$ m) with different column phases: 5% diphenyl-MS and polyethylene glycol (two each).
2. Microliter syringes 0.5  $\mu$ l and 1.0  $\mu$ l (two each).
3. Injector kit (septa, liner, O-ring)-one packet each.
4. Filament-5 pieces
5. Branded gas purification panels for helium and methane gases.
6. A suitable online UPS (10 KVA, 220v/50Hz) from branded make such as APC/Numeric etc. with at least 30 min backup time.
7. Training for software application and maintenance at site and Vendor's lab for at least two persons.
8. Single point of control for both GC-MS and Headspace system.
9. Instrument should be a fully functional system and compliance should be quoted point wise along with documented support and page number.
10. Up gradation of software should be given free of cost.
11. Maintenance network and availability of Engineers needs to be mentioned.

Note: All the GC components should have EPC, PPC or APC

**Warranty:** One year warranty and four years additional Comprehensive Maintenance Contract (CMC)/ warranty with rates quoted on annual basis. Also quote the list of consumable items, which are not covered under CMC.

#### Optional items

1. OQ/PQ and IQ compliance.
2. Provide the list of Preventive Maintenance Kit, which has to be included with CMC.
3. One additional EI source with complete sets.
4. Column nuts and ferrules (two packets each).