



केन्द्रीय औषधीय एवं सगंध पौधा संस्थान, लखनऊ
CENTRAL INSTITUTE OF MEDICINAL & AROMATIC PLANTS

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)

(Council of Scientific & Industrial Research)

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P.O. CIMAP Campus, Lucknow-226015

दिनांक - 29.01.2016

शुद्धिपत्र

कॉन्फोकल माइक्रोस्कोप, वाल्क-इन प्लांट ग्रोथ चेंबर, लिक्विड क्रोमैटोग्राफी कपल्ड विद क्वाडरूपोल टाइम-ऑफ-फ्लाइट (क्यूटॉफ) मास स्पेक्ट्रोमीटर एवं लेबोरेटरी फर्नीचर की क्रय हेतु जारी निविदा दिनांक 12.01.16 के क्रम में दिनांक 22.01.16 एवं 27.01.16 को आयोजित पूर्व बोली बैठक के संदर्भ में सक्षम प्राधिकारी ने तकनीकी विशिष्टताओं में कतिपय संशोधन अनुमोदित किया है। निविदा प्रस्ताव जमा करने की अंतिम तिथि दिनांक 04.02.16 से बढ़ाकर दिनांक 11.02.2016 समय अपराह्न 2.30 बजे की गयी है। तकनीकी बिड 11.02.16 को अपराह्न 3.30 बजे खुलेगी। संबंधित विस्तृत विवरण सीमैप की बेबसाइट www.cimap.res.in पर उपलब्ध है।

निविदा की शेष तकनीकी विशिष्टतायें, नियम और शर्तें यथावत रहेंगीं।

भंडार एवं क्रय अधिकारी

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Corrigendum

In continuation of our tender for procurement of Confocal Microscope, Walk-in Plant Growth Chamber, Liquid Chromatography Coupled with Quadrupole Time-of-Flight (Q-TOF) Mass Spectrometer & Laboratory Furniture dated 12.01.2016 and consequent upon the pre bid meeting held on 22.01.16 & 27.01.16, the competent authority has approved some modifications in the technical specification of the tender. The Last date of submission of Bids has been extended from 04th February 2016 to 11th February 2016 upto 2.30 PM. The Technical bids will be opened on 11th February 2016 at 3.30PM. For details please visit CIMAP website www.cimap.res.in.

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

Stores & Purchase Officer

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Specifications for Liquid Chromatography coupled with Quadrupole Time-of-Flight (Q-TOF) Mass Spectrometer

Liquid Chromatography coupled with Quadrupole Time-of-Flight (Q-TOF) Mass Spectrometer with following technical specifications:

Vendors to offer all required prerequisites for complete working & Installation of LC- Q-TOF System for seamless integration between LC and Q-TOF with atleast 10 years spares support.

A. Liquid Chromatography System with Auto sampler facility:

Software controlled LC and easy integration with Q-TOF mass spectrometer, autosampler and thermally controlled column compartment.

1. Pump system: Binary gradient pump for high pressure solvent mixing at 18000 psi or better.
2. Flow rate: Within the maximum range of 2 ml/min
3. Flow precision and accuracy: precision must be equal to or less than 0.08% RSD with $\pm 1\%$ accuracy.
4. Auto sampler capable to work at 18000 psi or higher pressure. Injection volume upto 50 μ l or more. Provision for keeping a minimum of 96 samples or more.
5. Column oven facility: 70 ° or above.
6. Detector: suitable PDA detector (190-600nm or more).
7. Online degasser with automatic system control.
8. Liquid chromatography flow splitting device.

B. Q-TOF Mass Spectrometer specification:

1. Working mass range:
TOF: m/z upto 10,000 Da or more
Quadrupole: m/z upto 2,000 Da or more
2. Source and Ionization modes:
Source with facility of both ElectroSpray Ionization (ESI) and Atmospheric Pressure Chemical Ionization (APCI) source. Software controlled gas flow and heating facility.
3. Mass Analyzer: MS1 comprised of a high resolution quadrupole analyzer along with pre filter facility for maximum resolution and ion transmission.
MS2 shall be comprised of TOF analyzer with resolving power better than 40,000 FWHM or more.
4. Mode of acquisition: MS Scanning, MS/MS product ion scanning. Simultaneous MS and MS/MS scanning.
5. Collision Cell: Software controlled/ programmable Collision Cell with collision energy control feature for MS/MS experiments.
6. Vacuum System:
Software controlled automated vacuum system with Turbo molecular pump in combination with roughing pump with feature of safe operation in case of power failure.
7. Mass resolution: 40,000 FWHM or better.
8. Mass accuracy: 1ppm or better (MS mode); less than 2ppm (MS/MS mode).
9. Mass Sensitivity: Full scan sensitivity in MS/MS mode for ESI: S/N 500:1 (1pg of reserpine) or better without compromising the system resolution.

10. Linear dynamic range: 4 orders or better.
11. Spectral acquisition rate: 20 spectra/sec or better in MS and MS/MS modes.
12. System Software: Latest Licensed Operating software.
13. Data handling System:
Branded PC (Dell /HP/IBM) Monitor 21 inch or more, Laser Printer, work station facility.
Data Handling & Reporting with Licensed Software for full control of the LC and MS systems.
14. Compatible N₂ generator (PEAK make) with external scroll compressor (Anest Iwata make) to fulfill gas requirement.
15. Direct Infusion: Syringe pump or equivalent for direct infusion of natural product/synthetic compounds.
16. Reference Mass Introduction: System should be capable of internal reference mass correction for MS and MS/MS operation.
17. Chemical Reference Kit for mass calibration.
18. Columns: three C18 and two C8 (2.1 micron column).
19. Training for software application and maintenance at site and Vendor's lab for 2-3 persons.
20. Single point of control for both LC and Q-TOF MS.
21. Others items required for complete installation like gas purifier and regulators (SS) etc.
22. Standard Warranty (quote the list of consumable items, which are not covered under standard warranty).
23. UPS of 20 KVA for more than one hour backup.
24. Spares: The following spares should be kept as on site stock during warranty period:
 - a. for Mass spectrometer: sufficient spares like capillaries, heaters, O-rings, seals, insulators, spacers, reference samples, probe tips, consumable kit for ESI, APCI and other necessary spares required during the warranty.
 - b. Supply of Auto sampler vials (min. 3000 pieces of different size), syringes (25, 50, 100, 500, ~1, 5 ml one each) for regular use.
 - c. For Liquid chromatography system: Check valve (inlet and outlet)- 2 each, Plunger (2 numbers), pump seals (at least 20), Rotor seal (2 numbers), Seal replacement kit.
25. Stainless steel tank for storage of gas: one (150 litre capacity).
26. Warranty of indigenous items shall be covered by quoting party.

Optional Items:

25. OQ/PQ and IQ compliance.
26. 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.
27. Provide the list of Preventive Maintenance Kit, which has to be included with CMC.

Instrument should be a fully functional system and compliance should be quoted point wise along with documented support and page number. Up gradation of software should be given free of cost. Maintenance network and availability of Engineers needs to be mentioned.