

कृषिरसायनसंभागDIVISION OF AGRICULTURAL CHEMICALS  
भा.कृ.अनु.प.-भारतीयकृषिअनुसंधानसंस्थानICAR-INDIAN AGRICULTURAL RESEARCH INSTITUTE  
पूसा, नईदिल्ली- 110012 PUSA, NEW DELHI-110012  
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मिसिल संख्या File No.1-2/2019-20/12-225/AC

दिनांक Dated: 30/12/2019

IIIrd -Time Tender

निविदा-सूचना

निदेशक भा0कृ0अ0प0-भारतीय कृषि अनुसंधान संस्थान नई दिल्ली द्वारा निम्नलिखित वैज्ञानिक उपकरण / वस्तु की आपूर्ति एवं कार्य हेतु प्रतिष्ठित निर्माताओं / अधिकृत डीलरों / आपूर्तिकर्ताओं से दो बोली प्रणाली (तकनीकी एवं वित्त बोली) के अन्तर्गत सील बंद ऑनलाईन क्यूटेशन **2D-LC-MS/MS** के लिये आमंत्रित की जाती है । क्यूटेशन /निविदा प्रस्तुत करने की अंतिम तिथि 27/01/2019 समय 01 बजे दोपहर तक । क्यूटेशन/निविदा को दिनांक 28/01/2019 को समय 14:30 बजे निर्धारित समिति के समक्ष खोली जाएगी । **Online Quotations are invited from reputed Manufacture/Dealer/Supplier in Two Bid system (Technical bid & Financial bid) for 2D-LC-MS/MS of following Scientific Equipment/Items on behalf of Director ICAR-Indian Agricultural Research Institute, New Delhi. The last date for submission of Bid 27/01/2019 at 1.00pm. The bid will be opened on dated 28/01/2019 at 14.30 hrs. By the prescribed committee.**

विस्तृत नियम व शर्तों को भा0कृ0अ0सं0 की वेबसाईट [www.iari.res.in](http://www.iari.res.in) पर देखें एवं ऑनलाईन के लिए [www.eprocure.gov.in](http://www.eprocure.gov.in) देखा जा सकता है। **Please visit [www.iari.res.in](http://www.iari.res.in) for Details Rules and Regulation and Log on [www.eprocure.gov.in](http://www.eprocure.gov.in) for online.**

क्रम संख्या Sl. No.	वैज्ञानिक उपकरण / वस्तु का नाम Name of Scientific Equipment / Item	मात्रा Quantity
1	<b>2D-LC-MS/MS</b>	One

बोली लगाने के निर्देश और नियम एवं निविदा की शर्तें Instruction to the bidder and terms & conditions of tender:

- 1) आपके द्वारा दी गयी मूल्य दर क्यूटेशन प्राप्त हेतु निर्धारित अन्तिमदिनसे कम से कम 180 दिनों तक मान्य होगी। यदि आपूर्तिकर्ता द्वारा 180 दिनों की न्यूनतम अवधि की वैधता के संबंध में कोई अन्तर होता उसका विषय रूप से उल्लेख होना चाहिए। **The rates quoted shall be valid for a minimum period of 180 days from the last date fixed for submission of bid.**
- 2) क्यूटेशन में दर्शायी गई दरों में भा0कृ0अ0सं0 नई दिल्ली के संभाग / कृषि रसायन संभाग, भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-110012 में सामान / सामग्री की निःशुल्क आपूर्ति अथवा स्थापन शामिल होगा। हालांकि विदेशी मुद्रा में दर्शाए गए उपकरण को एफ0ओ0बी0 आधार पर दर्शाया जाए। **The rates quoted shall be free of cost delivery and installation at the Division of Agricultural Chemicals, IARI, New Delhi-110012. However, equipment quoted in foreign currency must be quoted on FOB.**
- 3) यदि सामान विदेश-निर्मित है और दर विदेशी मुद्रा में दिया गया है तो ऐसी परिस्थिति में कस्टम ड्यूटी छूट प्रमाणपत्र (सी0डी0ई0सी0) जारी किया जाएगा जो कि केवल भा0कृ0अ0सं0 के लिए ही मान्य होगा। **Custom Duty Exemption**

**Certificate (CDEC) will be issued only when the bid is quoted in foreign currency in case of foreign made items only and meant for IARI.**

- 4) क्यूटेशन में संबंधित सामान का पूरा विवरण दिया जाएगा। **Full specifications of the item/article quoted for shall be given in the quotation.**
- 5) उपरोक्त दिए गए दर में यदि किसी भी प्रकार का अतिरिक्त कर /टैक्स/ड्यूटी लगाया जाना है तो उसका संकेत स्पष्ट रूप से दिया जाना चाहिए **If taxes duties or any other charges over and above the rates quoted leviable, actual percentage of such taxes/duties/other charges should be clearly indicated.**
- 6) बोली के साथ बतौर बयाना राशि रु 600000/-(छह लाख केवल) का डिमांड मॉग ड्राफ्ट/भुगतान आदेश/मियादी जमा रसीद/बैंक गारंटी को निदेशक, भा0कृ0अ0स0, नई दिल्ली 110012 के नाम किसी भी राष्ट्रीयकृत बैंक में देय हो, अवश्य संलग्न होना चाहिए। जिसके बिना, क्यूटेशन पर विचार नहीं किया जायेगा। बयाना राशि की मूल प्रति सीधे तौर पर संबंधित निविदा आमंत्रित अधिकारी को आखिरी तारीख तक या ऑफलाईन दर जमा करने से पहले पहुंच जानी चाहिए। डिमांड मॉग ड्राफ्ट/भुगतान आदेश/मियादी जमा रसीद/बैंक गारंटी से संबंधित सभी जानकारी व्यक्तिगत रूप से भेजी जानी चाहिए, इस संबंध में प्राप्त स्कैन कॉपी /या जो डाटा आपूर्तिकता द्वारा दर जमा करने के दौरान दिया गया है उससे मिलान किया जाएगा अन्यथा इस क्यूटेशन का रद्द माना जाएगा। **EMD of Rs. 600000 (Rs. Six Lakhs only) should be in the form of D.D/Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI, payable at New Delhi. The original EMD should be submitted to the Tender Inviting Authority on or before the last date and time of online bid submission. The details of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee physically sent, should tally with the details available in the scan copy and the data enter during the bid submission time otherwise the uploaded bid will be rejected.**
- 7) इस संस्थान द्वारा निविदाकर्ता को किसी भी सुरक्षा जमा राशि और बयाना राशि पर ब्याज नहीं दिया जाएगा। **No interest on security deposit and earnest money deposit shall be paid by the Institute to tenderer.**
- 8) क्यूटेशन प्रक्रिया पूरी होने के पश्चात असफल बोलीदाताओं को उनकी जमा की गयी बयाने की राशि वापस कर दी, जायेगी जबकि सफलतम बोलीदाता के मामले में यह राशि नियम के अनुसार सुरक्षा जमा के रूप में समायोजित की जा सकती है, जो कि ऑर्डर के राशि की 5-10 प्रतिशत होगी और यह डिमांड मॉग ड्राफ्ट /भुगतान आदेश/मियादी जमा रसीद/बैंक गारंटी निदेशक, भा0कृ0अ0स0, नई दिल्ली 110012 के नाम किसी भी राष्ट्रीयकृत बैंक में देय हो, जिसकी वैधता सभी कार्य को पूरा करने के 60 दिनों, साथ के साथ उपकरण/सामान जिसकी कीमत (रु0 1.00 लाख या इससे अधिक) की गारंटी भी शामिल होगी। हालांकि जा उपकरण रु 1.00 लाख एक लाख से कम है उस परिस्थिति में किसी भी प्रकार का निष्पादन जमा राशि नहीं दी जाएगी। **The EMD shall be refunded to the unsuccessful bidders after finalization of the quotation. In case of successful bidder, it can be adjusted towards security deposit which is 5-10% of the order value in the form of D.D/Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI, payable at New Delhi and shall remain valid for 60 days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods costing Rs. 1.00 lakhs (Rs. One Lakh) or more. Here would however, be no performance security deposit for equipment/goods costing less than Rs. 1.00 lakh (One lakh).**
- 9) फर्म द्वारा एक वर्ष की वारंटी प्रदान की जाएगी। यदि सामान/उपकरण के विवरण में वारंटी की अवधि में किसी भी प्रकार परिवर्तन है, तो उस वारंटी को अंतिम माना जाएगा। **One year warranty has to be invariable provided by the firm. In case, there is any variation in the warranty period given in the specification of the item/equipment, the warranty period shall be the final as given in the specification.**
- 10) कार्य के पूरा होने के बाद फर्म / पूर्तिकता को तीन पूर्व रसीद बिल प्राप्त होने के बाद भुगतान e-payment के माध्यम से किया जाएगा। **Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bill triplicate.**

- 11) निदेशक भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली 110012 के पास बिना कारण बताये सभी क्यूटेशनओं को पूर्ण या आंशिक रूप से स्वीकार या अस्वीकार करने के अधिकार प्राप्त हैं। **The Director IARI, New Delhi reserves the right to accept or reject any or all the quotations either in full or in parts without assigning any reason.**
- 12) उपरोक्त शर्तों का पालन न करने वाली क्यूटेशनों को अस्वीकार करने के लिये उत्तरदायी होंगी। **Quotations not complying with the above conditions are liable to be rejected.**
- 13) **TIN/VAT/PAN/C.S.T./GST Nos.** के स्कैन कॉपी को क्यूटेशन के साथ में संलग्न किया जाए। **Scanned copy of TIN/VAT/PAN/C.S.T./GST Nos may be attached with the bid.**
- 14) किसी कारण अनुबंध में कोई विवाद उत्पन्न होने पर भारतीय कानून और न्यायालय, नई दिल्ली की अधिकारिता के अधीन होगा। सचिव, भारतीय कृषि अनुसंधान परिषद द्वारा एकमात्र मध्यस्थ नियुक्त किया गया है, जिसका निर्णय दोनों पार्टियों (Supplier और Purchaser) पर अंतिम माना जाएगा। **In case, any dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & Court at New Delhi. Sole arbitrator is appointed by the Secretary, ICAR, New Delhi. His decision will be final and binding on both parties (Supplier and Purchaser).**
- 15) सफल बोलीदाता को सौंपे गए कार्य को निर्धारित आपूर्ति आदेश के भीतर कार्य करना होगा जैसा आपूर्ति आदेश में दर्शाया गया होगा यदि ऐसा नहीं किया जाता तो कम से कम 2% तथा अधिकतम 10% की क्षति नष्ट कटौती के रूप में उनके बिल से काटी जाएगी। **The successful bidder has to execute the indented Job/Work as mentioned in the supply order place with them within the stipulated period as given in the supply order placed by this office failing with 2% per week and maximum of 10% deduction as liquidated damage charges will be made from the bill in case the job is not completed within the given stipulated period**
- 16) फर्म को इस कार्य/क्षेत्र में 3 वर्ष के अनुभव का प्रमाण पत्र के लिये आपूर्ति आदेश संलग्न करना है। **Firms should 3 years experience in this line, proof in form of work orders during last three years should be enclosed.**
- 17) **Full specification of the article quoted for shall be given in the quotation along with literature/pamphlet/drawing etc. User list of the quoted document may also be additionally provided for reference.**
- 18) **In Case, LC is open for purchase of Foreign equipment all charges outside India will be borne by the firm.**
- 19) **As per CVC's guidelines No.12-2-6CTE-SPJ(1)-2/161730 (circular No.3/1/12) dated 13/1/2012, in a tender either the Indian Agent on behalf of the Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. Further, if an agent submits bid on behalf of the Principal/OEM the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.**
- 20) **The equipment is to purchase for Research purpose and therefore shall be purchased at concessional GST Rate of 5%. The required certificate shall be issued to the successful bidder for availing concessional GST Rate.**
- 21) **The following documents must be uploaded with the technical bid failing which tender will not be accepted at all.**

1. GST Number
2. Pan Card
3. Earnet Money Deposit (EMD) Rs. 600000/- (Rs. Six Lakhs only)
4. Literature/pamphlet/drawing etc. Alongwith user list if any
5. Technical specification of equipment/item alongwith compliance statment in accordance with the tender technical specification.
6. The tender documents duly signed by the concerned firm accepting the same should be attached with technical bid.P
7. Certificate declaring that the firm has not been debarred/Black listed by the Govt. Deptt./Court of law for doing any business in India.

<b>Technical Specification for 2D-LC-MS/MS</b>		Whether complied with YES/No	It, yes, please attach tech literature of the equipment duly printed & clearly specify page No. Of Bulletin which specifically confirm this															
<p align="center"><b>Technical Specification for 2D-LC- MS/MS</b></p> <p>2-Dimensional Liquid chromatography with MS/MS should be able to separate, identify and quantify the low molecular weight and high molecular weight compounds of natural/synthetic origin in MS and MS/MS experiments. The instrument should also have all the licensed software and including natural product library with license to carry out metabolomics and high molecular weight determination studies with a Quadrupole Time of Flight / Hybrid-QuadrupoleOrbitrap or equivalent MS-MS workstation for exact mass and true isotopic measurements.</p>																		
	<table border="1"> <thead> <tr> <th></th> <th><b>Mass System</b></th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Ionization Source</td> <td>Dedicated/multimode ESI and APCI ionization modes for ionization of samples</td> </tr> <tr> <td>2</td> <td>Mass Analyzer</td> <td>Quadrupole-Time of Flight (Q-TOF)/Hybrid-QuadrupoleOrbitrapanalyzers</td> </tr> <tr> <td>3</td> <td>Mass Range</td> <td>TOF: m/z atleast 40,000 Da or better Quadrupole: m/z atleast 2000 Da or better or Orbitrap:m/z upto 6000 Da or better</td> </tr> <tr> <td>4</td> <td>Mass Accuracy</td> <td>≤ 1 ppm (Internal calibration) ≤ 3 ppm (External calibration)</td> </tr> </tbody> </table>		<b>Mass System</b>		1	Ionization Source	Dedicated/multimode ESI and APCI ionization modes for ionization of samples	2	Mass Analyzer	Quadrupole-Time of Flight (Q-TOF)/Hybrid-QuadrupoleOrbitrapanalyzers	3	Mass Range	TOF: m/z atleast 40,000 Da or better Quadrupole: m/z atleast 2000 Da or better or Orbitrap:m/z upto 6000 Da or better	4	Mass Accuracy	≤ 1 ppm (Internal calibration) ≤ 3 ppm (External calibration)		
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5	Mass Resolution	TOF: 35000 or better at m/z equivalent to 1000 Da in MS/MS mode or Orbitrap: 100000 or better in MS/MS mode at m/z 200		
6	Sensitivity	Full scan sensitivity in MS/MS mode for ESI:S/N 200:1 at 1pg of standard sample		
7	Scan speed	High resolution MS/MS should have high speed acquisition with 30 spectra/sec in MS/MS mode or more for TOF or 12Hz/sec or more in orbitrap		
8	MS and MS/MS capability	Should have capability to acquire MS and MS/MS data simultaneously The quoted model should have advanced technologies such as AQT/DITC/Stepwave/Ion funnel or equivalent technology for optimized ion transmission		
9	Sample introduction	Direct infusion and through LC		
10	Integrated syringe pumps	Fully automated data system control for infusion of sample and calibrant		
11	Linear Dynamic range	Linearity of atleast 4 orders of magnitude while maintaining specified resolution for quantitative purposes		
12	Calibration	Should have automatic calibration option using standard samples		
13	Vacuum System	High vacuum system through turbo molecular pump with backup pump		
14	Computer Platform	Branded PC with 27 inch Monitor or better system and high storage capacity with Licensed Software		

		<p>for instrument operation, scan and data processing of all scan function, data handling &amp; reporting in LC-MS/MS.</p> <ul style="list-style-type: none"> <li>• System should have single point of control for both 2D-LC and MS/MS and be able to perform data dependent and data independent workflow and variable precursor ion window</li> <li>• System should have provision for identification of low abundant analyte in presence of higher one.</li> <li>• HRMS Library should be included for Natural products, pesticides, mycotoxins, antibiotics etc.</li> <li>• Libraries offered should have perpetual license.</li> <li>• One colour printer</li> <li>• Separate high configuration workstation should be quoted for off-line data processing and analysis with following or equivalent specifications: Xenon CPU 2.3Ghz (2 processor), RAM 64 GB DDR4, Hard disk 4TB, Graphite card K4200 or better</li> </ul>		
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15	Software	<p>The Original and licensed software should be user friendly &amp; have capabilities to perform the following functions.</p> <p>The MS control software must be a Windows based platform and must have the ability to control both the MS and 2D UPLC devices.</p> <p>The data processing software must incorporate an elemental composition calculator as standard. Included in the calculator must be algorithms for isotope pattern modelling that allow data interpretation of actual isotope patterns.</p> <p>The software should offer data dependent acquisition (DDA) acquisitions.</p> <p>Software for assigning structures to the observed fragment ions of small molecule compounds, drugs, and/or metabolites to known precursor structures should be quoted.</p> <p>Software to deconvolute complex chromatograms, to search mass spectra against the commercially available libraries and for comparing chromatograms must be quoted.</p>		
16	Pre-requisite for running 2D-LC-MS/MS	<ul style="list-style-type: none"> <li>Noiseless, vibration free Nitrogen gas generator with compressor to</li> </ul>		

		<p>provide required high purity (99.999%) nitrogen</p> <ul style="list-style-type: none"> <li>• One on line 15 KVA UPS with 2 hours back up for the entire system including the vacuum pump, nitrogen generator</li> <li>• Three Acclimatizers of two ton each for maintaining temperature and humidity from reputed brand with auto switch over</li> <li>• A branded vibration free table of suitable size for housing the entire MS/MS, LC and computer systems and two quality revolving chair for operator</li> <li>• Should provide mass calibration standard for next two years</li> </ul>		
17	Gas Generator	A suitable imported gas generator with built-in compressor capable of providing all the gases at the required purity (99.99%), pressure and flow rate for the Mass Spectrometer must be quoted. The compressor should be noise-free.		
	2Dimensional-Liquid Chromatography (2D-LC)			
18	LC should be compatible to the MS/MS system for all	It should be 2-Dimensional UPLC/UHPLC with column heater, pump and autosampler		



	the modes of ionizations ESI/APCI)	<p>System should have autosampler for injection of samples</p> <p>Column - C18, C8 RP (sub 2 micron; 5 each), C30 (sub 2 micron; 1 No.) columns having suitable guard column for UPLC (2)</p> <p>Should have vacuum degasser &amp; column oven (35-65 deg.C or better) controlled by software.</p> <p>Necessary tools, operation and maintenance manuals, spike busters to be provided</p>		
	<b>2D Pumps:</b>	<ul style="list-style-type: none"> <li>• Binary gradient pump with pressure upto 15000 psi at at 1ml min<sup>-1</sup> flow rate with degasser</li> <li>• Quaternary gradient pump with low pressure mixing &amp; pressure upto 15000 psi at 1ml min<sup>-1</sup> flow rate with degasser.</li> <li>• Operating Flow Rate Range to be 0.010 to 2.000 mL min<sup>-1</sup></li> </ul>		
	Auto sampler:	<ul style="list-style-type: none"> <li>• An autosampler should be quoted with minimum sample carryover</li> <li>• Autosampler should be available with a capacity of approx. 80 vials or more of 1.5 ml/2 ml capacity &amp; sufficient no. of spare sample vials (1000) must be provided and mentioned in the tender.</li> </ul>		
	Column Heater:	<ul style="list-style-type: none"> <li>• A column heater should</li> </ul>		

		<p>be quoted with temperature from 4 to 90 deg. or better</p> <ul style="list-style-type: none"> <li>• Column capacity of 2 Columns of 150 mm or better with guard columns.</li> <li>• 6 port 2 valve flow divert valve should be quoted.</li> </ul>		
19	Photodiode Array detector for LC	PDA detector (190-700nm or more) should be quoted		
20	Consumables	Necessary consumables for LC and MS/MS such as 5 numbers of syringes each for 0.25 mL, 0.50 mL and 1.00 mL, vacuum pump oil (10L), LC vials (500 no.) solvent filtration kits (1) for all types of solvents, sample filtration devices, etc. should be quoted		
21	Software	<ol style="list-style-type: none"> <li>1. Library/Database-natural products</li> <li>2. Statistical software/Structure identification</li> </ol>		
22	Warranty	12 Months from date of installation+ 2 Years comprehensive warranty for LC-MS/MS full system including hardware and software including Nitrogen Gas generator and vacuum pumps and UPS (Certificate to be attached). PM kit and calibration kit should be part of warranty.		
	<b>Optional Software</b>	Software related to Metabolomics/Proteomics study		

Water purification system	For LC grade water
Sonicator cum shaker facility	For cleaning of syringes etc.
Deep freezer (-20 <sup>0</sup> C)	For storing standards/samples

**Eligibility Criteria**

1. The LC-MS/MS system is to be imported only and should not be the Minimum refurbished or locally supplied.
2. Minimum 5 global installations of the quoted mass system in National R&D Institutions for the past 5 years. Documents supporting documents by means of purchase orders/latest service reports/installation reports to be enclosed. List of installation for the quoted model to be enclosed.
3. Declaration from the Principals that minimum 7 years support in terms of spares and service will be provided.
4. The bidder should also quote CMC for additional 2 years after 3 years of warranty.
5. Specifications and documents at the time of submission of quotation must clearly spell the sought specifications
6. Onsite training/demonstration for one week thrice during the warranty period to the project staffs/scientists to be provided at no additional cost

**General Conditions**

1. Original and licensed Software for the equipment should be provided
2. Documentary evidence in terms of publications for the quoted model.
3. List of service staffs and centers available in India.
4. List of the Indian users of quoted model for last three years
5. Firms should not quote obsolete / discontinued models.
6. Equipment should work under 220 to 240 V/50Hz conditions.

**(Note: Non Compliance to above eligibility criteria will result in rejection of the bid )**

**Other Condition**

1. Are you registered with TIN/PAN and VAT/CST/GST	Yes/No	PAN No. GST No.
2. Have you deposited EMD/- original EMD is to be submitted to the Asstt. Admn. Officer, Division of Agricultural Chemicals before closing date of tender	Yes/No	Amount..... DDNo/FDR/BG No..... Name of Bank
3. Have you enclosed lated authorization certificate resting with sufficient validity period from manufacturer/Principal foreign firm (if any applicable)	Yes/No	Enclose copy
4. Have you ever been debarred/Black listed by the Govt. Deptt./Court of law for doing any business in India attach self-declaration certificate in the regard	Yes/No	Enclose copy
5. Have you enclosed any Literature/pamphlet/drawing etc. Alongwith user list if any	Yes/No	Enclose Copy
6. Have you enclosed the tender documents duly signed accepting the same with technical bid.	Yes/No	Enclose Copy
7. Have you enclosed 3 years experience in this line, proof in form of work orders during last three years?	Yes/No	Enclose Copy

(सहायकप्रशासनिकअधिकारी)Asstt. Admn. Officer