

जैव रसायन संभाग

DIVISION OF Biochemistry

भा.कृ.अ.प.—भारतीय कृषि अनुसंधान संस्थान, पूसा, नई दिल्ली—110012

ICAR-Indian Agricultural Research Institute, Pusa, New Delhi-110012

File No. BC/ ST/NAE/2019-20

Dated : 05/11/2019

निविदा-सूचना

Online quotations are invited from reputed Manufacture/Dealer/Supplier in two bid system (Technical bid & Financial bid) for purchase of following Scientific Equipment/Items on behalf of Director ICAR- Indian Agricultural Research Institute, New Delhi. The **last date for submission of Bid 26.11.2019 at 1.00 PM.** The **bid will be opened on dated 27.11.2019 at 14.00 hrs** by the prescribed committee.

Please visit www.iari.res.in for Details Rules and Regulation and Log on www.eprocure.gov.in for online.

Sl. No.	Name of Scientific Equipment/ Item	Quantity
1.	Inductively Coupled Plasma Optical Emission Spectroscopy	1. No.

Instructions to the bidder and terms & conditions of tender:

1. The rates quoted shall be valid for a minimum period of 180 days from the last date fixed for submission of bid.
2. The rates quoted shall be free of cost delivery and installation at the Division/Unit of **Biochemistry**, IARI, New Delhi – 110012. However, equipment quoted in foreign currency must be quoted on FOB/ CIP basis
3. 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. Full specifications of the item/ article quoted for shall be given in the quotation.
5. If taxes, duties or any other charges over and above the rates quoted livable, actual percentage of such taxes/duties/other charges should be clearly indicated.
6. **EMD of Rs.90,000/- Rupees ninety thousand only** should be in the form of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favors 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 offline 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. No interest on security deposit and earnest money deposit shall be paid by the Institute totenderer.
8. 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 lakhs (Rs. One Lakh).

9. 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. Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bills triplicate.
11. 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. Quotations not complying with the above conditions are liable to be rejected.
13. Scanned copy of GST/TIN/VAT/PAN/C.S.T. Nos may be attached with the bid.
14. 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. The successful bidder has to execute the indented Job/Work as mentioned in the supply order placed with them within the stipulated period as given in the supply order placed by this office failing which 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. Firm should enclosed proof for three years' experience in this line (copies of supply order received in 3 years . should be enclosed.
17. For locally (within India) manufactured good/items. Proforma invoice for the goods/items to be procured from the OEM or Authorized agent/Distributor for goods/ spare parts of equipment manufactured aboard, proforma invoice is to be procured from the OEM in the currency of that country and not in INR . The firm (providing proforma invoice) should mention/undertake that "the rates quoted by them are the same and not higher than those quoted with other Government, public sector or private organizations and undertaking that, in case it supplies or quotes a lower rate to other Government , public sector or private organizations, it would reimburse the excess" The firm may mandatorily submit the purchase order of same goods/items which it supplied to Government Departments in recent past in order to justify the quoted rates.
18. Certificate from the OEM in favor if Authorized Agent/Distributor clearly stating that "the agent is the sole authorized agent to provide goods / service in India for the OEM products" The certificate shall not be dard more than one year old and valid for at least next 12 months. The agency Agreement/Distributor certificate should clearly bring out Exclusive status of the agent (Sole selling agent in India) after sales service arrangements, validity of the Agreement with foreign Principal. Agency Commission. The agreement between the OEM and the Agent/Distributor must make the Indian Agent/Distributor responsible for all the contractual obligations including quality aspects, replacement of parts/items and warranty/guarantee obligations.
19. **Submit the all documents in sequence to compliance the terms and conditions..**

Sl. No.	Description / Specification of the Equipment/ Item
1.	<p>Name of Equipment : Inductively Coupled Plasma Optical Emission Spectroscopy One No.</p> <p>Specification : As per Annexure -A</p>

Asstt. Admn. Officer
SKB

**Technical Specification for the Purchase of Inductively Coupled Plasma -
Optical Emission Spectroscopy (ICP-OES)**

Fully PC controlled bench top design Inductively Coupled Optical Emission Spectrometer with following specifications:

[A] ICP-OES Instrument:

1. The instrument should be a fully PC controlled simultaneous / fast sequence reading ICP using **Solid-State Detector Technology**. The ICP should be fast sequence/ simultaneous in all aspects of measurements including measurements of all analyte wavelengths, internal standard and background.
2. The instrument should be a **bench-top design** with simultaneous dual viewing (Axial & Radial both) capability in single instrument. Viewing of the plasma must be computer controlled. Torch should be mounted **vertically/horizontally**.
3. The instrument should have the facility for assigning the same **wavelength** of an element in both **axial & radial mode** (as per customers' requirement)
4. The Solid state RF generator must run at a frequency of **27 MHz or Higher**.
5. The instrument must have an **Echelle-based optics**.
6. Detector: **SCD/CCD/CID** detector.
7. Optical Resolution/Spectral Bandpass: **0.007 nm** or even better at 200 nm.
8. The instrument must include a **cyclonic spray chamber** and **glass concentric nebulizer** and other accessories for aqueous samples. The system must include a min **three channel, peristaltic pump** or more.
9. **Imported Chiller/re-circulator** should not be mounted to the instrument chassis and should be from the OEM.
10. The instrument must be able to determine **all desired elements** in one analytical method pass.
11. The spectrometer must cover the spectral range of **166 - 750 nm** or better. User definable viewing mode in the entire wavelength range (axial/radial or Duo)

12. System should have provision to use **nitrogen/ Argon** for purging. The gas flows can be of variable or fixed types as per the method /system requirement.
13. System should be offered with **Hydride/vapor generation system** low level detection elements like Hg, As, Se etc.
14. System software: The instrument system software shall be based on the **Windows** operating system. The software shall provide full control of all instrument functions including plasma ignition, gas flows, viewing position, and monitoring of safety interlocks. All the audit trail requirements as per 21 CFR Part 11 must be a part of the software, with user access control management, e signature etc.
15. Data back up: The facility for automatic **back up of data** in to a server must be offered along with the instrument software.
16. Warranty - 03 years
17. Final evaluation will be done after satisfactory demonstration of the offered model by the vendor at the demo lab/customer place.

[B] Accessories:

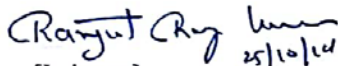
- 1) Auto-sampler with at least **120 samples vial capacity** including **peristaltic pump and rinse station**.
- 2) List of consumables to be supplied along with the instrument:
 - a) Plasma Torch – 2 unit
 - b) Nebulizer -2 unit
 - c) Center Tube/Injector – 2 unit
 - d) Spray chamber – 2 unit
 - e) Sample uptake tubing (6/pak) – 2 unit
 - f) Sample drain tubing (6/pak) – 2 unit
 - g) Any other consumable required by the system should be included here.
- 3) Vendor should quote appropriate fume hood complete including exhaust hood with blower for the ICP system with automatic switch over assembly. Vendor should quote gas cylinder (06) filled with Argon / Nitrogen with double stage gas pressure regulator (02 no.).
- 4) PC (Dell Precision 5820 Tower Workstation) with Single Intel Xenon W-2123, 8th generation 3.60 GHz, Intel C422 Chipset Motherboard, 16 GB DDR4 @2666 MHz ECC

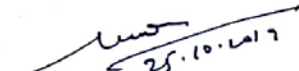
RAM expandable up to 128 GB, Quadro Pro P1000 with 4 GB Graphics Card, 2 TB SATA Hard Disk 7200 RPM, 24" LED Monitor 1900x1200 TCO 07, Optical mouse and keyboard, Windows 10 professional 64 Bit, All-In-One Printer from Reputed Company.

- 5) Fume Hood Outer Body constructed Epoxy Powder-coated Galvanized Iron Steel Sheet. Working Hood Inside made of 18G thick Epoxy Powder-coated Galvanized Iron Steel Sheet with 4 mm thick FRP with dim in MM 1200 x 600 x 600 (W x D x H). Outer Dimension in MM. 1500 x 800 x 1500 (W x D x H). Air-flow 80 fpm \pm 20% with sash opening 15, Flow controlled by mechanical lever. Noise level below 60 dba. Providing power Socket 16/6 amp 3 no in hood. Providing 3 no. Gas Cork /Nozzle (position on back or side as per your requirement). Providing separate switch (on/off) For Blower motor and FL-Tube, supply indication. Power supply required 440V (AC) 3Ph, 32 Amp. Light Illumination 28 watt (FL), Ducting provision PVC 8/ 200mm in dia., Fume Suction at the Baffles Top and back inside of working hood gap 50 mm. Baffles are FRP done, Suction unit connection on Fume Hood will be attached by PVC FRP 8 \emptyset Ducting.
- 6) **Microwave sample digestion system:**
 - a) Consumables for ICPOES and Microwave digestion system to be supplied with instrument for two years. Precise control with high power (1450 watts or more) using single/dual magnetron heating.
 - b) High working pressure (in the range of 0 – 150 bar or more) capability along with built in fast cooling for 12 or higher number of samples at a time with individual vessel IR temperature sensor.
 - c) the system must have maximum operational temperature of 250 $^{\circ}$ C and controlled release of overpressure and reaction vessel must be vent able prior to removal to avoid hazards
 - d) Consumables for a period of two years as per the sample load of 100 samples/month to be quoted
- 7) Air-condition (2 tons) from branded company – No Two (02).
- 8) Table for ICP-OES with Granite Top Made of CRC MS Sheet with acid proof powder coated with Granite Top Single Drawer Double door, Size L-600*875*875, Leg Space 600*600*875, Square Pipe Frame 1800*600*875 with 2 sets of socket and switches.
- 9) Suitable size table for PC and printer (6x2.5x3 ft).
- 10) Electronic Data Log Book - 1 no

- 11) Electronic Bio Metric Door Lock from reputed company - 1 no.
- 12) Electrical Earthing for the Instrument.
- 13) 20 KVA online UPS with 1 hr backup.
- 14) LED panel 2x2 - 6 Nos.
- 15) NIST Traceable multi element standards for 23 element pack of 500 mL - 2 nos.

Certified that the specifications as given above are generic in nature.







[Indenter] 25/10/19


[Anil Dahuja] 25.10.2019


[Narender Kumar] 25/10/19


[Shyam Sunder] 25/10/19

(Divisional Equipment Purchase Committee)


[A. K. Singh] 
[Rashmi Aggarwal] 
[B. S. Tomar] 
[Madan Pal] 
[P.S. Rawat]

(Institutional Technical Specification Committee)