



Request for Quotation

Enquiry No: **IITK/CE/TG/NCAP2017-01**

Date: Oct 16, 2017

Last Date: October 31 (Tue), 2017

Technical bid tender opening on 2nd Nov (thu), 2017 at 3pm in Stores and Purchase section IIT Kanpur.

Financial bid for the technically qualified parties will be opened at a later stage.

Sub: Call for quotation for “**INDUCTIVELY COUPLED PLASMA SPECTROMETER (ICP-OES)**”

Sealed quotations are invited for purchase of **INDUCTIVELY COUPLED PLASMA SPECTROMETER (ICP-OES)**. Supplier should mention complete contact details such as E-mail, telephone etc.

Minimum Technical Specifications:

Fully PC controlled bench top design simultaneous or fast sequential Inductively Coupled Optical Emission Spectrometer for the environmental samples applications with following specifications:

1. The instrument should be compact and fully PC controlled based on solid-state detector technology (RF generator). The solid state RF generator must run at a frequency of 27 or 40 MHz
2. The ICP should be dual view simultaneous in all aspects of measurements including simultaneous measurements of all analyte wavelengths, internal standard and background. If it is a sequential version it should have the matching performance level.
3. The instrument should be a compact, bench-top design.
4. The instrument must have the possibility to automatically switch between axial and radial view (dual view) during an analysis in a single run automatically.
5. The instrument must have Echelle-based optical components to minimize Intensity loss. Vendor to specify no of optical components being used in Instrument and if it is a polychromator or monochromator including relative advantages explicitly.
6. Detector should be CID or CCD detector with simultaneous detection.
7. Spectral Resolution: 0.007nm or even better at 200 nm. Vendor must certify the spectral resolution specifications which will have to be certified by factory as required.
8. The System must have computer controlled Mass flow controllers on all Argon gas lines including nebulizer, Gas, Plasma Gas & Auxiliary gas, vendor to specify clearly Gas box specifications & certify the same in the offer.
9. Chiller/re-circulator must not be mounted to the instrument chassis and should be from the original manufacturer of imported origin.
10. The instrument should be able to determine all desired elements in one analytical method pass.

11. External sample Introduction system with minimum 3 channel peristaltic pump for maximum flexibility & for use with multiple internal standards.
12. The spectrometer must cover the spectral range of 170 - 785 nm or better. The System must not have any wavelength gaps or missing spectral region or any element wavelength. The Full wavelength range must be available for both the views with no restriction of choice of wavelength.
13. System should be offered with Hydride Generator accessory for continuous flow external Hydride/vapor generation system with software control of Hydride Generator pump & carrier gas full with independent channel for sample, acid, reluctant & drainage for Hydride forming elements.
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. Software should also have comprehensive wavelength library with indication of preferred line for each element. It should features automatic identification of possible spectral interferences when selecting wavelengths for analysis and should have search mode for identification of unknown wavelengths.
15. Sampling Kits for aqueous must be offered as standard.
16. Satisfactory demonstration of the offered model by the vendor at the demo lab/customer place.
17. Accessories: Vendor should quote appropriate fume hood complete including exhaust fan for the ICP system. Vendor should quote filled Argon gas cylinders (02 nos) with double stage gas pressure regulator (01 no.), as required by system. Latest PC, UPS (3-5 kVA including total number of batteries) and Laserjet Printer should also be quoted.
18. Auto-sampler with at least 240 samples vial capacity including peristaltic pump and rinse station.

Terms and Conditions under Joint Tendering for MOEFCC funded NCAP:

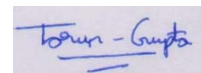
- Quote should be made in two parts: Technical bid and financial bid separately in sealed envelopes.
- Financial bid for products whose technical bid is not acceptable will not be opened.
- If the financial bid is included in the technical bid then quotation will be rejected.
- The sealed envelopes with the quotes should be super scribed mentioning whether it is technical or financial bid.
- Taxes, packaging, forwarding freight charges, if any should be mentioned separately and clearly.
- The ICP-OES (s) proposed to be procured under a consortium agreement of various participating Govt. Institutes to ensure standardization and to avail volume discounts.
- The participating institutes may place separate orders for supply of Item(s) as per their individual requirements on same rates, terms and conditions but with separate purchase orders, point of delivery, customs clearance, delivery and payment arrangements.
- The consortium appointed tendering institute (IIT Kanpur) may negotiate with the lowest and responsive bidder for justification of prices and discounts.
- The bidders are required to quote their lowest rates and discounts for different quantities i.e. Qty. - 4, Qty.-3, Qty.-2 and Qty.-1. The rates are to be mentioned separately. The order will be placed on rates applicable for a particular quantity finalized at the time of placing the order. The quotes should be valid for 180 days.
- The bidders are required to deliver the equipment in the following institutes:
 - a) IIT Kanpur, Kalyanpur, Uttar Pradesh, 208016 (PI: Prof. Tarun Gupta, Dept. Of Civil Engineering)
 - b) IIT Bombay, Mumbai, Powai, Maharashtra, 400076 (PI: Prof. Chandra Venkataraman, IDP in Climate Studies)
 - c) IIT Delhi, Hauz Khas, New Delhi, Delhi, 110016 (PI: Prof. Gazala habib, Dept. of Civil Engineering)

- c) IISER Bhopal, Bhopal Bypass Road, Bhauri, Bhopal, Madhya Pradesh 462066 (Prof. Ramya Sunder Raman, Dept. of Earth & Environmental Sciences)
- **5 years extended comprehensive warranty from the date of installation on all the parts of machine including spares and accessories is a must.**
 - The rates for GST (SGST,IGST,CGST) whichever is applicable, must be mentioned separately for IIT Bombay (Maharashtra), IISER Bhopal (Madhya Pradesh), IIT Kanpur (Uttar Pradesh), IIT Delhi(New delhi).
 - The bidder must certify that installation, training and any other charges quoted for IIT Kanpur will remain same for all other participating Institutes and nothing extra will be charged towards these heads.
 - Maximum educational discount, if any, should be offered.
 - Uniform rate will apply even if any institute (s) requires re-tendering a single item.
 - Vendor must provide the two letters of satisfaction from the reputed government national institutes or research organization where quoted machine is installed and running smoothly or provide two peer-reviewed research articles in that research work quoted machine has been used.
 - One authorized representative of each of the bidder (may come at their own expenses) would be permitted to be present at the time of opening of the technical bids. **Technical bid tender opening on 2nd Nov (thu), 2017 at 3pm in Stores and Purchase section IIT Kanpur.**
 - All quotations should be in the currency of the country of origin of the instrument and on FOB/FCA basis only.
 - Quotation should carry proper certifications like Authorization, Proprietary Certificate etc.
 - Institute is exempted for payment of Excise Duty under notification no. 10/97 and partially @ 5.15% custom duty exemption certificate under notification 51/96 and road permit will be provided if applicable.
 - The penalty @ 1% per week or part thereof subject to a maximum of 10% of the delivery price will be deducted from the balance payment if supply is not completed within stipulated time period.
 - Our standard payment terms & conditions is 90% against delivery and 10% after inspection, installation and approval of its satisfactory performance.
 - At any time prior to the deadline for submission of bids, IIT Kanpur may, for any reason, whether on its own initiative or in response to the clarification sought by a prospective BIDDER may modify the bid document by issuing necessary corrigendum.
 - The institute reserves the right for accepting and rejecting any quotations without assigning any reason thereof.
 - **Last Date for receiving the sealed quotations: 5 pm, October 31 (Tue), 2017.**

Thanking You!

Date: Oct 16, 2017

Yours faithfully,



Dr. Tarun Gupta
Professor
Department of Civil Engineering
Indian Institute of Technology Kanpur
Kanpur- 208016