



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान पुणे
INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH PUNE
IISER/PUR/1902/25
PREBID CLARIFICATION

आइटम विवरण- इंडक्टिवली कपलड प्लाज्मा (आईसीपी) स्पेक्ट्रोमीटर की खरीद
Item Description- Procurement of Inductively Coupled Plasma (ICP) Spectrometer

इंडक्टिवली कपलड प्लाज्मा (आईसीपी) स्पेक्ट्रोमीटर की खरीद के लिए संस्थान की वेबसाइट www.iiserpune.ac.in और CPP पोर्टल पर 15/04/2026 को प्रकाशित खुली निविदा का संदर्भ लें।

Refer to an open tender published on the Institute website www.iiserpune.ac.in and on the CPP Portal on 15/04/2026 for Procurement of Inductively Coupled Plasma (ICP) Spectrometer.

प्री-बिड मीटिंग 21/04/2026 को शाम 3.00 बजे आयोजित की गई और बैठक का कार्यवृत्त निम्नानुसार है:

Pre-Bid meeting was held on 21/04/2026 at 3.00 PM and minutes of meeting is as under:

प्रारंभ में, समिति ने सभी सदस्यों और संभावित बोलीदाताओं के प्रतिनिधियों का स्वागत किया और सामान्य तौर पर निविदा के दायरे की जानकारी दी और उसके बाद उप कुलसचिव (भंडारण एवं क्रय) से बोली लगाने वालों को निविदा की मुख्य विशेषताओं के बारे में जानकारी देने का अनुरोध किया।

At the outset, the committee welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the tender and thereafter requested Deputy Registrar (S&P) to brief the bidders on the salient features of the tender.

उपस्थित प्रतिनिधि दिए गए उत्तरों से संतुष्ट थे और यह सूचित किया गया था कि प्री बिड कॉन्फ्रेंस के दौरान की गई चर्चा के अनुसार दिए गए सुधार- / परिवर्धन / स्पष्टीकरण को IISER पुणे की वेबसाइट पर होस्ट किया जाएगा और सभी संभावित बोलीदाताओं को बोली दस्तावेजों में निर्धारित अनुसार अपनी बोली जमा करने से पहले प्री-बिड सम्मेलन की कार्यवाही का संज्ञान लेना आवश्यक है।

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

हमारी आईआईएसईआर वेबसाइट www.iiserpune.ac.in और CPP portal पर जारी नोटिस के अन्य नियम और शर्तें अपरिवर्तित रहेंगी। इस संबंध में और कोई पत्राचार नहीं किया जाएगा।

The other terms & conditions of the notice issued on our IISER website www.iiserpune.ac.in and CPP portal will remain unchanged. No more correspondence in this regard will be entertained.

बैठक अध्यक्ष के धन्यवाद प्रस्ताव के साथ समाप्त हुई।

The meeting ended with vote of thanks to the Chair.

27/04/2026

27/04/2026

Sd/-

उप कुलसचिव (भंडारण एवं क्रय)

Deputy Registrar (S&P)

TECHNICAL AND COMMERCIAL QUERIES AND CLARIFICATION

S. No.	Query/Clarification Sought	Clarification / Amendment
1.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>Bidder suggested to modify from “preferably polychromator” to “preferably polychromator or suitable latest technology” and “four winding copper” to “four winding copper or suitable plasma generation technology” and from “cold start or equivalent” to “cold start (instrument off)”.</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>The specification is amended from “High Resolution Echelle optics (preferably polychromator), dual view plasma or better, automated wavelength adjustment with internal neon/mercury standard or equivalent, Peltier cooled CCD/CID array detector with one million pixels for simultaneous recording of all wavelength or equivalent, which acquire data for all wavelengths, 40/27 MHz or higher high-frequency generator with solid state power supply, four winding copper and minimized start-up time of 15 minutes or less from cold start or equivalent.”</p> <p><i>To,</i> “<i>High Resolution Echelle optics (preferably polychromator or suitable latest technology), dual view plasma or better, automated wavelength adjustment with internal neon/mercury standard or equivalent, which acquire data for all wavelengths, 40/27 MHz or higher high-frequency generator with solid state power supply, four winding copper or suitable plasma generation technology and minimized start-up time of 15 minutes or less from cold start or equivalent.</i>” (refer appended Annexure-III)</p>

2.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>Bidder suggested to include “Suitable power wattage variable up to 1400watts or better.”</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>The following additions have been made to the specifications: Suitable power wattage variable up to 1300watts or better. (refer appended Annexure-III)</p>
3.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>Bidder suggested to include “Plasma Argon gas flow consumption should ≤ 10 L/min for lower operating cost.”</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>The following additions have been made to the specifications: Plasma Argon gas flow consumption should be ≤ 12 L/min for lower operating cost. (refer appended Annexure-III)</p>
4.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>Bidder suggested to include “The system should have integration time minimum up to <5 seconds”</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p> <p>The following additions have been made to the specifications: The system should have an integration time up to <5 seconds. (refer appended Annexure-III)</p>
5.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u></p>

	Bidder suggested to include “plasma variable flows details”	<p>The following additions have been made to the specifications:</p> <p>System should have computer-controlled variable gas flows for plasma (8 to 15L/min or wide), Nebulizer (0 to 1.5L/min or wide) and Auxiliary (0 to 1.5L/min or wide). (refer appended Annexure-III)</p>
6.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u></p> <p>Bidder requested to modify from “Spectral Resolution: 0.007 nm or lower at 200nm” to “Spectral Resolution: 0.009 nm or lower at 200nm”</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u></p> <p>The specification is amended from “Spectral Resolution: 0.007 nm or lower at 200nm”. <i>To</i> “<i>Spectral Resolution: 0.009 nm or lower at 200nm</i>”. (refer appended Annexure-III)</p>
7.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u></p> <p>Bidder requested to remove the wavelength accuracy specification.</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u></p> <p>Wavelength accuracy specification has been removed from the specification. (refer appended Annexure-III)</p>
8.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u></p> <p>Bidder requested to modify from “Water-cooled/Ceramic cone with highly symmetric counterflow of recycled argon purge gas” to “Water-cooled/Ceramic cone or any suitable technology to remove plasm tail plume with highly symmetric counterflow of recycled argon purge gas. If</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u></p> <p>The specification is amended from “Water-cooled/Ceramic cone with highly symmetric counterflow of recycled argon purge gas”. <i>To</i></p>

	ceramic cone/interface is consumable, then 10 sets should be quoted additionally”.	“ <i>Water-cooled/Ceramic cone or any suitable technology to remove plasm tail plume with highly symmetric counterflow of recycled argon purge gas</i> ”. (refer appended Annexure-III)
10.	<u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u> Bidder requested to include “Instruments should capable to plot calibration graphs up to 2000mg/L or more and supporting notes should be provided.”	<u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point b) Resolution</u> Tender specifications prevails.
11.	<u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 5, Gas accessories</u> Bidder requested to modify from “Complete accessories with installation for all gases, including cylinders and automatic gas manifold and switching. 4 units of the (each Ar and N2 if needed) gas cylinders with all necessary accessories. Air compressors (two) if needed. System should preferably work on only one gas” To “Complete accessories with installation for all gases, including cylinders and automatic gas manifold and switching. 4 units of the Argon and 2 of N2 gas cylinders for optical purge if required. N2 purging is preferred instead of argon for purging to reduce operating cost. Air compressors should be quoted if needed”.	<u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 5, Gas accessories</u> Tender specifications prevails.
12.	<u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u> Bidder requested to modify from “High Resolution Echelle optics (preferably polychromator)” to	<u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 1, Point a) ICP-OES Optical</u> The specification is amended from “High Resolution Echelle optics (preferably polychromator)” <i>To</i>

	“(preferably polychromator or fast sequential)”.	“ <i>High Resolution Echelle optics (preferably polychromator or suitable latest technology)</i> ”. (refer appended Annexure-III)
13.	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 8, Terms and Conditions</u></p> <p>Bidder requested to modify from “Vendor must submit at least 5 PO copies and installation reports from IIT, CFTI, or equivalent institute along with the end users' contact details from the last five years of the same model quoted in the tender” to “Must submit at least 5 PO copies and installation reports from IIT, CFTI, or equivalent institute along with the end users' contact details from the 10 years of the similar model quoted”.</p>	<p><u>CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS, Sr. No. 8, Terms and Conditions</u></p> <p>The specification is amended from “Vendor must submit at least 5 PO copies and installation reports from IIT, CFTI, or equivalent institute along with the end users' contact details from the last five years of the same model quoted in the tender”.</p> <p><i>To</i> “Vendor must submit at least 5 PO copies and installation reports from IIT, CFTI, or equivalent institute along with the end users' contact details from the last five years of the similar model quoted in the tender”. (refer appended Annexure-III)</p>
14.	CHAPTER 4 SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS	Revised CHAPTER 4, SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS , is appended as ANNEXURE -III

CHAPTER 4
SCHEDULE OF REQUIREMENTS, SPECIFICATIONS & ALLIED TECHNICAL DETAILS

Sr No.	Instrument/accessory Component description	Specifications
		Compact high-resolution, external PC-controlled, fully automated Dual view Inductively Coupled Plasma Optical Emission Spectrophotometer (ICP-OES) for multi-element analysis with all required accessories for installation. The system should be optimized for the highest sensitivity, high performance, and high throughput and be able to measure ultra-trace to a major level in single-test measurement. Tested and designed to be compliant with legal requirements for laboratory instrumentation in compliance with ISO 9001
1 (Marks: 45)	a) ICP-OES Optical (Marks: 20)	<ol style="list-style-type: none"> 1. High Resolution Echelle optics (preferably polychromator or suitable latest technology), dual view plasma or better, automated wavelength adjustment with internal neon/mercury standard or equivalent, which acquire data for all wavelengths, 40/27 MHz or higher high-frequency generator with solid state power supply, four winding copper and minimized start-up time of 15 minutes or less from cold start or equivalent. 2. Suitable power wattage variable up to 1300watts or better. 3. Plasma Argon gas flow consumption should be ≤ 12 L/min for lower operating cost. 4. The system should have an integration time up to <5 seconds 5. Sub (< 1) ppb to sub 10 (< 10) ppb detection limits for most of the commonly analyzed elements. 6. System should have computer-controlled variable gas flows for plasma (8 to 15L/min or wide), Nebulizer (0 to 1.5L/min or wide) and Auxiliary (0 to 1.5L/min or wide).
	b) Resolution (Marks: 20)	<ol style="list-style-type: none"> 1. Wavelength range: 170-850nm or better. 2. Spectral Resolution: 0.009 nm or lower at 200nm. 3. Automated attenuation of axial and radial plasma views/synchronous plasma view with fast switching between plasma views by transfer optics in one method for increased flexibility and productivity 4. Water-cooled/Ceramic cone or any suitable technology to remove plasm tail plume with highly symmetric counterflow of recycled argon purge gas 5. Dynamic measurement range of at least 6 (preferably 8) or higher orders of magnitude or better
	c) Sample introduction accessories (Marks: 5)	<ol style="list-style-type: none"> I. Vertical torch with firm, sliding torch base from thermally and chemically resistant materials. II. Fully demountable modular torch with plug-and-play installation of inner tubes, outer tubes, and injectors shuttle interlock for glass and gas connections III. Glass cyclonic spray chamber IV. The sample introduction system should include a 12-roller peristaltic pump with adjustable contact pressure and 3 tubing channels or better alternates V. Standard (Aqueous) Kit: (Sample introduction system recommended for aqueous Samples): Scope of supply: Set PVC-pump tubing sample, Set PVC-pump tubing waste, Torch, demountable, 2mm diameter injector, Torch Bonnet Concentric nebulizer 1mL/min Spray chamber cyclone 50mL (1 No.) or as per requirement. VI. High TDS Kit with all the required accessories.

		VII. Additional essential consumables required: Inner tube, Quartz glass (1 No.), Torch (3 No.), Concentric nebulizer (3 No.), Set of PVC-pump tubing for sample (50 No.), Set of PVC-pump tubing for waste (50 No.).
2 (Marks: 10)	Hydride Generation Sample Introduction System	For classical and hydride-forming element making system realize even higher level of sensitivity for elements like As, Se and Sb
	NIST Traceable Standard for multi-element	a. and 100ml required with latest manufacturing date (1 in number) b. must have 100ppm 23 elements or equivalent
	Recirculating Chiller	c. Of recommended capacity (1 in number)
	Flexible exhaust hood	d. For ICP-OES system, according to IISER Pune lab requirement
	Autosampler	e. Autosampler with integrated rinse function, configurable XYZ movement, 4 x sample rack (60 positions) plus 1 x standards rack (10 positions) new, variable peristaltic-pump allowing rinse flow rates from 0.1 to 80mL/min or by variable pump speed.
3 (Marks: 5)	Data processing	i. Software to be provided along with training and manuals ii. Default settings for each element should be incorporated, and an extensive line, interference, and method library with line favorite tool, free selection of all plasma, and evaluation parameters, including plasma view and signal integration mode, should be available. Automatic plasma ignition and shutdown as an integrated part of a measurement sequence for unattended operation must be available as standard iii. Methods: Default settings for each element should be incorporated, and Extensive line, interference, and method library with line favorite tool. Free selection of all plasma and evaluation parameters, including plasma view and signal integration mode, should be available. Automatic plasma ignition and shutdown as an integrated part of a measurement sequence for unattended operation must be available as standard iv. Evaluation: software must offer static baseline correction using zero, 1st, 2nd or 3rd order polynomials, Automatic Baseline Correction routine (ABC) to significantly reduce data handling and interference identification. Inter-element corrections should have spectral evaluation tools for the correction/elimination of spectral interferences v. Calibration: Software should have a facility for selection from multiple calibration modes: linear and non-linear evaluation with variable weighting, standard addition, and matrix matching. Selection of up to 30 calibration points with two-point recalibration with a display of the recalibration factor. vi. Lifetime free software upgradation even when the Windows version changes, along with a minimum of 2 offline licenses for offline data processing.
4 (Marks: 5)	PC with Software	• PC (2 No.): A suitable branded computer with the following specifications for data collection: Intel® Core™ Ultra 7 processor or equivalent, 1TB SSD, 16 GB DDR4 RAM, NVIDIA GeForce RTX™ 3060 (12 GB GDDR6) or equivalent, 24 inch LED Screen, Keyboard, mouse, licensed MS windows original.

5 (Marks: 15)	Gas accessories	Complete accessories with installation for all gases, including cylinders and automatic gas manifold and switching. 4 units of the (each Ar and N ₂ if needed) gas cylinders with all necessary accessories. Air compressors (two) if needed. System should preferably work on only one gas.
6 (Marks: 5)	Warranty	The supplier should provide 36 months' warranty after the successful installation of the system. The supplier should also regularly quote for an annual maintenance contract after the warranty period. Post-warranty vendors should provide service as and when required on a chargeable basis without AMC.
7 (Marks: 5)	Installation and training	The entire system should be installed and commissioned at IISER Pune. Any additional requirements should be mentioned and provided. After successfully installing the system and its peripherals, selected scientific and technical personnel from IISER Pune should be provided with hands-on and in-depth training on the operation, maintenance and application of the instrument by factory engineer(s). Software and service manuals with complete circuit diagrams shall be provided.
8 (Marks: 10)	Terms and conditions	<ol style="list-style-type: none"> I. Bidder must provide point-wise compliance for all the specifications. All the quoted technical parameters must be corroborated by the product catalogue/product data sheet, only then will it be considered II. All the system components supplied, should have comprehensive warranty for two years from date of installations including all labor cost III. System performance should be demonstrated with necessary standards and calibration kits which will be provided by the vendor as part of standard delivery IV. No conditional warranty will be accepted. V. Basic training for a period of week after installation & commissioning of the equipment to technical personnel to be provided at our site. VI. Good technical support should be provided after the installation of the instrument and the service engineer should be able to attend unlimited breakdown calls and should visit the installation site within 24 hours without fail. VII. Service support should be available for 6 days a week. VIII. Training on troubleshooting the issues associated with instrumentation or application should be provided free of cost whenever required by the user. IX. Manufacturer should provide the service support details in Maharashtra and India X. Details of the service engineers and application specialists should be provided along with their experience on these kinds of systems. XI. Details of the users (name, phone number and email ID) in India for the quoted instrument in the bid should be provided. XII. Instrument performance, quality of service and application support certificates from at least three existing users should be provided, mainly of user from IIT or CFTI or equivalent XIII. The vendor must be a manufacturer/ an authorized agent of the manufacturer; a certificate of authorization must be submitted during tender submission. XIV. Maximum educational discounts should be applied.

		<p>XV. The delivery period should be specifically stated. Earlier delivery may be preferred.</p> <p>XVI. Institute may provide unknown samples to the vendors for analysis on the quoted models to verify their claims on technical specifications and reserve the rights to reject any or all quotations based on the results.</p> <p>XVII. Institute will take demo of the ICP-OES to ensure technical compliance at our discretion.</p> <p>XVIII. Vendor must submit at least 5 PO copies and installation reports from IIT, CFTI, or equivalent institute along with the end users' contact details from the last five years of the similar model quoted in the tender.</p> <p>XIX. APPLICATION NOTE/ Technical specifications of the quoted product should be available in the public domain on or before the due date of the bid.</p>
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Minimum Marks for Qualification: 80 and above