



सी एस आई आर -राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान

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### **CORRIGENDUM**

PUR-189/EP/SEAF/2023-24

Date: 13.02.2024

After the Pre-Bid meeting held on 09.02.2024, Technical Specifications and Qualification Requirement of Inductively Coupled Plasma Mass Spectrometry (ICP-MS) is amended.

Revised Technical Specifications and Qualification Requirement are as per Annexure-A and B.

All the Terms & Conditions, Bid submission end date and Bid opening date will remain same.

**भंडार एवं क्रय अधिकारी**  
Stores & Purchase Officer  
CSIR-NEERI, Nagpur

## Revised Technical specifications of Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

### Specifications for Procurement of Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Sr. No.	Items description
1.	<b>Peristaltic pump</b> : Three channels or more Speed: Minimum 30 rpm or more
2.	<b>Spray chamber</b> : Quartz, Temperature range $\leq -5^{\circ}\text{C}$ to $\geq +20^{\circ}\text{C}$
3.	<b>Mass Range</b> : 7 – 260 amu or better
4.	<b>Mass Resolution</b> : $\leq 0.5$ amu
5.	<b>Mass Stability</b> : $\leq 0.050$ amu
6.	<b>Torch</b> : Single piece Quartz torch with gas connectivity. Automatic Torch position adjustment
7.	<b>Collision cell and Reaction cell (CRC):</b> a) Operating in Standard (No gas) b) Collision (KED) and Reaction gas modes. c) Gas mass flow controllers for reactive gases like as Helium, Hydrogen, Oxygen and Methane
8.	<b>Dwell Time</b> : $\leq 100$ $\mu\text{s}$
9.	<b>Background (cps)</b> : $\leq 1$
10.	<b>Sensitivity</b> : ${}^7\text{Li} \geq 55000$ cps/ppb or ${}^9\text{Be} \geq 6000$ cps/ppb
11.	<b>Vacuum system (with Noise reduction enclosure):</b> a) Three stage vacuum system or better b) The pumps should be a fume and acoustic free
12.	<b>Chiller</b> : Compact and acoustic free suitable re-circulating chiller with Noise reduction enclosure, Temperature working range $5^{\circ}\text{C}$ to $35^{\circ}\text{C}$
13.	<b>RF Generator</b> : 27 MHz or more, Power range 500W - 1600W or more
14.	<b>Detector</b> : Dual mode (pulse counting and analog mode) Discrete dynode electron multiplier, Calibration linear range over 10 orders of magnitude
15.	<b>Auto sampler</b> : Minimum 200 samples position or more for 15mL vials with two probes
16.	The system should have integrated AGD or UHMI or AMS dilution capabilities for high total dissolved solids (TDS)
17.	<b>Software</b> : The ICPMS controlled by Licensed Software, Compatible for Data processing, calibration, report generation & Method development.
18.	<b>Data Station</b> : Computer with following configuration should be provided Processor : i7 or higher; SSD:1TB ; RAM : 32GB DDR5 or better, Monitor: 27" LED or better; Operating system: Licensed Windows 11 or higher with Licensed MS Office 21
19.	<b>Installation Commissioning &amp; Training</b> : All standard Accessories including test kits, Multi elements minimum 25 elements Calibration standards, Gas manifold system for two cylinders, Exhaust fume hood system, Two stage Regulators and gas purification panel for- Helium, Oxygen, Hydrogen and CH <sub>4</sub> should be provided by the supplier to

	make the instrument operational. Three days operational and maintenance training at CSIR-NEERI, Nagpur
20.	<b>Warranty:</b> One year standard + Two years extended warranty. (Three years warranty from the date of installation)
21.	<p><b>Additional Consumables</b></p> <ol style="list-style-type: none"> <li>1) Nickel Cones : Sampler cones, Skimmer cones and/or hyper skimmers) - 03 sets each</li> <li>2) Platinum Cones: sampler, Skimmer and/or hyper skimmers with all inserts- One set</li> <li>3) Torch -03 Nos.</li> <li>4) Nebulizer - 03 Nos</li> <li>5) Spray chamber - 03 Set</li> <li>6) Assorted Peristaltic pump tubing - 10 set each</li> <li>7) Pump oil – 2 L.</li> <li>8) Autosampler Vials -500 Nos.</li> <li>9) Autosampler probe -02 Sets</li> <li>10) Assorted Tubing - 05 sets each</li> <li>11) Assorted O-ring - 05 sets each</li> <li>12) HF resistant kit (PFA) including nebulizer, spray chamber , torch, injector- one set</li> </ol>

Revised Qualification Requirement:

<b>Pre-Qualification &amp; Eligibility Criteria</b>			
<b>Sr. No.</b>	<b>Qualification requirement</b>	<b>Documents required</b>	<b>Complied /Agreed Submitted Document</b>
1.	Vendors / supplier / manufacture / Indian agent should not be debarred /black listed by any government organization / GeM for any product for the past three years. If the same is detected at any stage the contract will be terminated.	Undertaking to be submitted on company letter head separately	
2.	Performance certificate or installation report and purchase order of 02 users from government organization or State government or Central University or PSU for the past two years.	Copies of the certificates	
3.	Installation, Operational and Performance qualification (IQ/OQ/PQ) must be performed at site CSIR-NEERI Nagpur	Undertaking to be submitted on company letter head separately	
4.	Bidder must Quote latest model complying the technical specification mentioned in chapter 4	Undertaking to be submitted on company letter head separately	
5.	Vendors should have their application lab in India	Undertaking to be submitted on company letter head separately	
6.	Vendors should have their application note on public domain and on their web site	Undertaking to be submitted on company letter head separately	