

E-Procurement of Inductively Coupled Plasma Optical Emission Spectrophotometer (ICPOES) System

Corrigendum-1

Date: 09.12.2020

Reference: Tender No: - RGIPT/JAIS/CRF/E-OPN/LAB/2020-21/01

The pre-bid meet for cumulative procurement of Inductively Coupled Plasma Optical Emission Spectrophotometer (ICPOES) System was held on 25.11.2020 at 3:30 pm. Based on the discussions with the representatives of prospective bidders, revisions in some of the specifications are recommended. **Only the revised items/details and their serial numbers are shown below; the other item/details of technical specifications remain the same:**

Fully PC controlled simultaneous reading Polychromator based Inductively Coupled Plasma Optical Emission Spectrophotometer System (ICP-OES system) using high performance solid-state detector technology.

S. No.	Item	Detailed Specification	Revised Specifications
4.	Gas Flow Controls	<ul style="list-style-type: none"> Should be equipped with computer controlled built-in (3+1) channel electronic mass flow controllers for plasma, auxiliary, nebulizer gas; for precise control of variable gas flow rate (No manual mass flow controller will be accepted). The flow controllers must be covered in warranty, if not, then 2 numbers of extra flow controllers should be provided as spare along with the system. 	<ul style="list-style-type: none"> Should be equipped with computer controlled built-in 3 channel electronic mass flow controllers for plasma, auxiliary, nebulizer gas; for precise control of variable gas flow rate, plus additional one channel if required (No manual mass flow controller will be accepted). The flow controllers must be covered in warranty, if not, then 2 numbers of extra flow controllers should be provided as spare along with the system. Additional point: Automated switching valve system for gas flow should be provided to enable continuous use of gas, and switching between different cylinders
5.	Startup and Gas consumption	<ul style="list-style-type: none"> System should have the least total Argon gas consumption along with least time to perform analysis. (Please mention complete Argon consumption in L/min including Plasma, Auxiliary, Nebulizer, 	<ul style="list-style-type: none"> System should have the least total Argon gas consumption along with least time to perform analysis. (Please mention complete Argon flow in L/min including Plasma, Auxiliary, Nebulizer, purging gas flows) along with least time to perform

		<p>purging gas flows) along with least time to perform analysis & including time for changing any hardware for hydride and non-hydride simultaneous measurement.</p>	<p>analysis & including time for changing any hardware for hydride and non-hydride simultaneous measurement.</p> <ul style="list-style-type: none"> • Should be less than 20 L/min or better
8.	Sample Introduction system		<ul style="list-style-type: none"> • Additional point: The sample introduction system should be provided with an autosampler with minimum 200 vial capacity • Additional point: Minimum number of 1500 vials as spare should be provided with the autosampler
11.	Instrument Software	<ul style="list-style-type: none"> • The instrument handling original software should be based on <i>Windows-10 Professional</i> installed on the computer with color printer. 	<ul style="list-style-type: none"> • The instrument handling original software should be based on <i>Windows-10 Professional</i> installed on the computer with color printer; the software should be compliant to security of data, and should be provided with all upgradations and updates that will be introduced in future, for the instrument life • Additional point: Two weeks application training for use of software after successful installation of equipment should be provided
12.	Sample Digestion System: Microwave Digester	<ul style="list-style-type: none"> • Dual magnetron based system must be capable of processing 8 or more reaction vessels. • Specifications of Microwave Digester: <ul style="list-style-type: none"> • Number of reaction vessel: Eight (08) 	<ul style="list-style-type: none"> • Dual magnetron based system must be capable of processing 20 or more reaction vessels. • Number of reaction vessel: Twenty (20)
13.	Accessories, spares, and consumables	<ul style="list-style-type: none"> • Consumables: Sample Tubes: 10 set, Waste/Drain Tubes: 10 set, Torch: 3, Concentric Nebulizer: 2, Injector: 2, Spray Chamber-1 	<ul style="list-style-type: none"> • Consumables: Sample Tubes: Minimum 50 pieces, Waste/Drain Tubes: Minimum 50 pieces, Torch: 3, Concentric Nebulizer: 2, Injector: 2, Spray Chamber-1

14.	Standards	<ul style="list-style-type: none"> Separate 100 ppm standards for Hg, Se, Sn (100 mL) 	<ul style="list-style-type: none"> Separate 1000 ppm standards for Hg, Se, Sn (100 mL) Additional point: 250 mL supra pure grade HCl, HNO₃, and HF reagents should be supplied for ultra-trace analysis
15.	General		<ul style="list-style-type: none"> Additional point: The system should have upgradation capability multiport arrangements for introduction of additional gases such as O₂ to prevent carbon deposition, if required; should have capability to use additional autosamplers, auto-dilution systems, ultrasonic nebulizers etc; should be upgradable with separate mass flow controllers for allowing O₂ in the system and for fuel/hydrocarbon analysis if required in future
16.	System software		<ul style="list-style-type: none"> Additional point: the software should be compliant to security of data as per applicable standard practices, and should be provided with all upgradations and updates that will be introduced in future, for the instrument life Additional point: One additional offline license should be provided
17.	Warranty and Maintenance		<ul style="list-style-type: none"> The comprehensive warranty must include warranty on spares also


09/12/2020

Dr G K Agrahari

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With permission from

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Chairman, Central Research Facility

**E-Procurement of Inductively Coupled Plasma Optical Emission Spectrophotometer
(ICPOES) System**

Corrigendum-2
Extension of Last Date of E-Tender Submission

Date: 09.12.2020

Reference: Tender No: - RGIPT/JAIS/CRF/E-OPN/LAB/2020-21/01

ITEM NAME: Fully PC controlled simultaneous reading Polychromator based Inductively Coupled Plasma Optical Emission Spectrophotometer System (ICP-OES system) using high performance solid-state detector technology.

1. The last date of submission of E-Tender is hereby revised to 21.12.2020 (Monday) before 3:00 pm
2. The date & time of opening of Techno-commercial bid is hereby revised to 21.12.2020 (Monday) at 4:00 pm

The other terms and conditions of the E-Tender remain unchanged.

 09/12/2020

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Chairman, Central Research Facility