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CORRIGENDUM

PUR-311/EP/SEAF/2023-24 Date: 13.08.2025

Ref.: Tender ID No. 2025_CSIR_243512_1

After the Pre-Bid meeting held on 12.08.2025, Technical Specification of **Ion Chromatograph** is amended and revised specification is as per Annexure-A.

Qualification requirement, Terms & Conditions, Bid submission end date and Bid opening date will remain same.

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

Annexure-A

Revised Technical specifications of Ion Chromatograph:

Dual channel Ion Chromatography system for analysis of anions like fluoride, chloride, nitrite, bromide, nitrate, phosphate, sulphate and cations like lithium, sodium, potassium, calcium, magnesium, ammonium and its installation at CSIR-NEERI, Nagpur. The system should be PC based with data acquisition and system control through the same software. The software should be able to identify columns pump, detector automatically. The system should have the components with following technical specifications.

Technical Specification: -

(A) PUMPS:

1) Two numbers of high pressure pumps (Isocratic) and the pump material should be compatible with high strength acids, alkali and solvents with the followings:

(i)	Adjustable flow rate	: 0.001 to 15 ml / min or more
(ii)	Flow reproducibility / precision	: < 0.1% or better
(iii)	Serial dual pistons	
(iv)	Resolution of flow rate / flow increment	: 0.001mL (1 uL)
(v)	Pulsation / Pressure Ripple	: < 1% or better
(vi)	Pressure range	: 0 – 5000 PSI / 0-350 bar or better

(B) CONDUCTIVITY DETECTOR:

Two numbers of conductivity detectors for analysis of anion and cation which are:

(i) Temperature stability / Accuracy of $\leq 0.001^0$ C.

(ii) The user should be able to set temperature of the conductivity block between 20-50°C or better

(iii) Measurement range: 0 – 15000 µS/ cm or better.

(iv) Electronic noise: < 0.1nS at 1nS/cm

(C) CHEMICAL SUPPRESSOR:

Chemical suppressor should have high back pressure tolerance / resiliency with continuous regeneration.

(i) Regeneration of the suppressor should be by external chemical regeneration mode with the possibility of controlling the regenerant flow rate.

(ii) Suppressor should have 100% solvent compatibility.

(iii) Minimum 5 years warranty for suppressor should be provided along with manufacturer's certificate indicating the warranty.

(D) INJECTOR:

Two numbers of dual position 6-Port injector valve should controlled automatically through software

(E) IC COLUMNS:

Packed IC column each for analyses of Anions and Cations should be individually quoted with respective guard columns.

(i) The columns should have electronic chip or suitable software facility to store data and history of column use.

(ii) It should also be possible to store the data (controlled function), number of samples injected, working hours etc.

(F) AUTOMATION:

(i) Auto sampler with minimum 50 positions or more should be quoted along with the vials of minimum of 10 ml capacity and caps. The software should be able to control the sample processor completely.

(ii) Automation should feed dual system (Anion and Cation) parallel for ease of use and higher sample throughput.

(G) DATA PROCESSOR:

The system should be PC based with data acquisition and system control through the same software.

(a) The latest Branded PC (all in one) has a minimum 13th Gen Intel® Core i7, Preinstalled legal OS: Windows 11 and MS Office 2016, 16 GB, DDR4, 3200 MHz, 512 GB, SSD storage, 60.5-cm. display Full HD (1920X1080)

(I) OTHERS:

(i) Calibration Standards solutions for the Cations and Anions shall be provided.

(ii) Variable Micropipette with tips (1Box), tips holder and Pipette stand shall be provided:

(a) Range: 0.1 uL to 10 uL

(b) Range: 10 uL to 100 uL

(c) Range: 1 ml to 10 ml

(J) ON-SITE TRAINING:

Operational training to be conducted at CSIR-NEERI, Nagpur (Minimum five Days)

(K) WARRANTY: Three Years warranty

(L) POWER REQUIREMENT:

230 V AC ± 10% @ 50 Hz