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From : Director, CSIR-National Physical Laboratory
NO. 14-VII/ST(2819)21/PB/T-103 DATED : 24.12.2021

CORRIGENDUM

With reference to NPL's Global Tender No. 14-VII/ST(2819)21/PB/T-103 for the procurement of "Inductively Coupled Plasma Mass Spectrometry" Kindly note the following extension in **date** of submission & date of opening of the said tender :-

For : Due date & Time of tender submission
Read as : 11.01.2022 up to 03.00 PM (IST)

For : Date & Time of Tender Opening
Read as : 12.01.2022 from 3.00 PM (IST) onward

Apart from above, amended Technical specifications (Annexure-I) is also ATTACHED with this Corrigendum. Accordingly, all the interested bidders may submit their Offer as per revised technical specification.

Please also note that bids submitted without taking these changes into consideration will be rejected summarily.

All other terms will remain the same. The same is also available on CSIR-NPL official website http:/www.nplindia.org under Tender link.

Sd/-

(Controller of Stores & Purchase)

Annexure I

SPECIFICATION FOR INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY

Sl.No.	Tender Specifications	Amendment in Specifications
1A	A multichannel and ≥10 rollers peristaltic pump which can support variable flow rates, with three separate channels as 1) for sample introduction, 2) for Internal standard, 3) Spray chamber drain.	A multichannel and ≥10 rollers peristaltic pump which can support variable flow rates, with three or more separate channels as 1) for sample introduction, 2) for Internal standard, 3) Spray chamber drain.
1C	A factory fitted Peltier cooled, temperature-controlled quartz spray chamber is must with temperature range -5^{o}C to + 20^{o}C or better.	A factory fitted Peltier cooled, temperature-controlled quartz spray chamber with temperature range -5^{o}C to + 20^{o}C or better temperature range
2	RF power source for ICP torch: RF Generator (source): 27 or 34 or 40 MHz frequency, solid state power source and it should be fully computer controlled. Forward power range: 500 - 1500 Watts or better. Plasma shut down: Automatic shutdown of the plasma by the system after completion of analysis.	RF power source for ICP torch: RF Generator (source): 27 or 34 or 40 MHz frequency, solid state power source and it should be fully computer controlled. Forward power range: 400 - 1500 Watts or better. Plasma shut down: Automatic shutdown of the plasma by the system after completion of analysis.
5	Quadrupole mass analyser It should be made of molybdenum or stainless steel or any other suitable material. Mass range should be 2 to 260 amu or better	Quadrupole mass analyser It should be made of molybdenum or stainless steel or any other suitable material. Mass range should be 2 to 260 amu or better range

	Scan speed should be 3000 amu/sec. RF generator: frequency should be 2 MHz or higher Resolution: computer-controlled settings for quadrupole resolution should be available	Scan speed should be 3000 amu/sec or higher. RF generator: frequency should be 2 MHz or higher Resolution: computer-controlled settings for quadrupole resolution should be available
6	**Vacuum system:** Should have rotary pump (oil free) and turbo molecular pump with split flow for high gas Through put. Vacuum should be better than 1x10-5 mbar in open valve condition and shall be better than 5 x 10-5 mbar in closed valve condition. If vacuum failure occurs system must be automatically Back filled with inert gas to preserve the cleanliness of the system.	**Vacuum system:** Should have rotary pump (oil free) and turbo molecular pump with split flow for high gas Through put. Vacuum should be better than 1x10-5 mbar in open valve condition and shall be better than 5 x 10-5 mbar in closed valve condition. If vacuum failure occurs system must be automatically Back filled with inert gas or appropriate facility to lock the vacuum to preserve the cleanliness of the system.
7	Ion detection with electron multiplier shall ensure ≥ 9 orders of linear dynamic range using simultaneous analog/pulse counting. It should be able to measure major and minor concentrations in a single analytical run. Should have over range protection and fully automated detector cross calibration with good linearity.	Ion detection with electron multiplier shall ensure ≥ 9 orders of linear dynamic range using simultaneous analog and/or pulse counting. It should be able to measure major and minor concentrations in a single analytical run. Should have over range protection and fully automated detector cross calibration with good linearity.
11	**Gas supply system to ICP-MS system – 1 Set** The gas supply system is meant to provide required gases to the ICP-MS system at specific purity, pressure and	**Gas supply system to ICP-MS system – 1 Set** The gas supply system is meant to provide required gases to the ICP-MS system at specific purity, pressure and

	flow rates. Such a gas supply system should include: I. All required gases(Argon – 4 nos.; Helium – 2 nos.; Methane – 1 no./ Oxygen – 1 no.; /Hydrogen – 1 no. as applicablefor Plasma formation, Collision cell II. Two stage Gas pressure S.S. regulators for each cylinder III. Gas purification panels for all gases. IV. Gas supply automated manifold for switching Argon and He gas cylinder. V. Complete SS tubing's Complete set of Tool Kit.	flow rates. Such a gas supply system should include: I. All required gases(Argon – 4 nos.; Helium – 2 nos.; Methane – 1 no, Oxygen – 1 no., Hydrogen – 1 no. as applicable for Plasma formation, Collision cell and/or Reaction cell II. Two stage Gas pressure S.S. regulators for each cylinder III. Gas purification panels for all gases. IV. Gas supply automated manifold for switching Argon and He gas cylinder. V. Complete SS tubing's Complete set of Tool Kit.
12.	Appropriate water recirculation chiller for ICP MS system as standard accessory from Original Equipment Manufacturer – 1 No.	Appropriate water or coolant recirculation chiller for ICP MS system as standard accessory from Original Equipment Manufacturer – 1 No.
13	Auto sampler Capable to run uptoatleast 100 numbers of samples with different sample holder of capacity 15 ml, 50 ml.Wash/rinse bottles min 5 nos.at a time	Auto sampler Capable to run at least 100 or more numbers of samples with different sample holder of capacity 15 ml, 50 ml.Wash/rinse bottles min 5 nos.at a time