

Corrigenda

Ref: STIC/SAIF/XRD/2018-19/525

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STIC/SAIF/ICPMS/2018-19/526

Sl no	Clause /Section	Page no	Item number	Clause Earlier in the tender	Amend to read as
STIC/SAIF/XRD/2018-19/525					
1.	Section V	39	3	Ceramic X-ray Tube, minimum 3.0 kW Rating, Long Fine Focus (one line and one point focus); Cu Target. Additionally, one Molybdenum X-Ray tube, minimum 3.0 kW rating	All kW rating of x-ray tubes changed to a “minimum of 2 kW “
2.		39	3	Tube Mount: Easy switching from line focus to point focus without disconnecting any water hose or High Voltage Cable and opening the tube housing	Tube Mount: Easy switching from line focus to point focus without disconnection.
3		40	4	Diameter: minimum diameter of 500 mm.	Diameter: flexible setting range 450 mm to 1000 mm
4.		40	5	Fully Automated Motorized Optics change from (Bragg -Brentano to Parallel Beam geometry and vice versa with variable slits and parabolic curved multilayer mirror in Primary side and variable slit and Equatorial Soller Slit in Secondary side.	Fully Automated and Motorized Optics change from (Bragg -Brentano to Parallel Beam geometry and vice versa with variable slits and parabolic curved multilayer mirror in Primary side and variable slit and Soller Slit in Secondary side. Both primary and secondary optics should be automated and motorized
5.		41	7	1-Dimensional ultrafast detector suitable for Cu, Co, Mo, Ag, Cr x-ray	1-Dimensional ultrafast detector suitable for Cu, Co, Mo, Ag, Cr x-ray radiation. Necessary

				radiation. Necessary switching over to 0D 1D and 2D mode. The detector must have built-in energy discriminator to take care of sample fluorescence while working with Copper x-ray tube. Vendor should clearly mention the energy resolution of the detector in their quotation. The detector must be air cooled and should not use any liquid or gas in it's operation.	switching over to 0D 1D mode. The detector must have built-in energy discriminator to take care of sample fluorescence while working with Copper x-ray tube. Vendor should clearly mention the energy resolution of the detector in their quotation. The detector must be air cooled and should not use any liquid or gas in it's operation.
6.		41	8	NIST Standards (SB-15 Si and Si/Corundum) should be supplied along with main equipment. Performance on peak position and FWHM as per the NIST certificate to be demonstrated at the time of installation and commission	Suitable Standards for low angle calibration (0.5 to 3 degree) and NIST certified Corundum or Si should be supplied along with main equipment. Performance on peak position and FWHM as per the NIST certificate to be demonstrated at the time of installation and commission.
7.		43	20	Additional Software Please quote separately for original and latest release ICDD PDF2 data base. A comprehensive and vendor integrated advanced GUI crystallographic Software should be offered separately for powder patten analysis, Rietveld refinement, Structure refinement and Phase Quantification with Proper Training Crystallographic and Rietveld based quantitative phase analysis software which should cover: Qualitative analysis Phase quantification	Additional software A comprehensive and vendor integrated advanced GUI crystallographic Software should be offered separately for powder patten analysis, Rietveld refinement, Structure refinement and Phase Quantification with Proper Training The software should follow Fundamental Parameter Approach(FPA) . It should be suitable for Qualitative analysis, Peak/Line Profile analysis, Rietveld analysis, Lattice parameter determination, Crystallite size determination, Percentage of Crystallinity determination

				<p>Peak/Line Profile analysis Lattice parameter determination Crystallite size determination Percentage of Crystallinity determination Phase quantification based on Rietveld method Unit Cell determination Space Group determination Electron density Fourier Mapping Ab-initio Structure determination Method</p> <p>All software licenses must be in the name of the STIC, Cochin University.</p>	<p>Phase quantification based on Rietveld method, Space Group determination, Electron density Fourier Mapping, Ab-initio Structure Determination Method.</p> <p>Software should be stable, fast and accurate.</p> <p>Please quote separately for original and latest release ICDD PDF2 data base.</p> <p>All software licenses must be in the name of STIC, Cochin University.</p>
8		21	44	<p>UPS /Power requirements</p> <p>True online UPS of suitable capacity with power factor correction and harmonic distortion (< 5 % THD ; < 3% Single Harmonic), Three phase input and 440V for the smooth running of ICP-MS with tubular battery (Brand- Panasonic/ Exide /Ameron) with back up of 45 min. (Brand APC/Emerson/Numeric). Quote Separately</p>	<p>UPS /Power requirements</p> <p>15 kV True online UPS (Brand APC/Emerson/Numeric) with power factor correction and harmonic distortion (< 5 % THD ; < 3% Single Harmonic), Three phase input and 440V for the smooth running of ICP-MS with tubular battery (Brand- Panasonic/ Exide /Ameron) with back up of 30 min.</p> <p>Quote Separately</p>

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9	2	47	Scan speed 3500 amu/sec or better	Scan speed 3000 amu/sec or better
10	15	50	Back ground noise ratio 5 cps or less (specify)	Back ground noise ratio 1 cps or less (specify)
11	17	50	Doubly charged ratio Ba ²⁺ /B ⁺ - 3% or better (Specify)	Doubly charged ratio Ba ²⁺ /B ⁺ , Ce ²⁺ /Ce ⁺ - 3% or better (Specify)
12	23	51	100 ml 1000 ppm ICP MS Standard solutions NIST traceable certified reference solutions for Al, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Zn, Tl, Te, Sr, Se, K, Li, Mg, Mn, Na, Ni, Pb, As, Hg, Mo, P, Y, Ag, Au, S, Si, Sc, In, Cs, Rb, Sb, Zr, Sn, Ti, V, W, V, Pd, and Gd Multielement standard solution (wherever possible) is preferred and rest of the elements as single element standard solution. Required Internal standard and instrument baseline control standards	Standard solution traceable to NIST 100 ml 1000 ppm ICP MS Standard solutions NIST traceable certified reference solutions for Al, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Zn, Tl, Te, Sr, Se, K, Li, Mg, Mn, Na, Ni, Pb, As, Hg, Mo, P, Y, Ag, Au, S, Si, Sc, In, Cs, Rb, Sb, Zr, Sn, Ti, V, W, V, Pd, and Gd Multielement standard solution (wherever possible) is preferred and rest of the elements as single element standard solution. Single element standards should be supplied for instrument calibrations and performance verification Required Internal standard and instrument baseline control standards solution for mass calibration. Bi, Re, Rh, Yb- mixture or single standard Instrument Tuning solution should be supplied for 5 years .
13	29	51	True online UPS of suitable capacity with power factor correction and harmonic distortion (< 5 % THD ; < 3% Single Harmonic), Three phase input and 440V for the smooth running of ICP-MS with tubular battery (Brand- Panasonic/ Exide /Ameron) with back up of 45 min. (Brand APC/Emerson/Numeric). Quote Separately	20kV True online UPS (Brand APC/Emerson/Numeric) with power factor correction and harmonic distortion (< 5 % THD ; < 3% Single Harmonic), Three phase input and 440V for the smooth running of ICP-MS with tubular battery (Brand- Panasonic/ Exide /Ameron) with back up of 1 hr. Quote Separately
14	31	52	The system should have least maintenance components. Vendors have to give a maintenance chart for all the components	Consumables for running 1500 samples should be included in the bid.

				that require frequent maintenance or replacement of consumables. Consumables for running 1500 samples should be included in the bid. Shall provide list of consumables and price list of consumables for run complete system with auto sampler for 5 years (7500 samples) and specify as per the Annexure II.	10 % High TDS samples, 40% water samples, 40% Digested samples, 10 % Organic and HF containing samples Consumables included, sampler cones (4 numbers) Skimmer cones (4 numbers), cone insert (4numbers) gasket (20 numbers), Sample tubing inlet and outlet tubing (50numbers), plasma torch,(2numbers) injector (2numbers), spray chamber, (1number) Ion lens (1number), RF coil (1number), Nebulizer (2 numbers)Teflon Tubing, drain tubing, O-rings, Filters, nuts etc. Besides should provide list of consumables and price list of consumables for running complete system with auto sampler for 5 years (7500 samples) and specify as per the Annexure II.
Microwave Digester System and accessories					
15		3	56	Volume 100 mL or more	Volume 50ml or more
		20	57	Additional Safety measures: High definition digital camera can be interfaced if not included in the system, quoted separately	item deleted
Ion Chromatograph and accessories					
16			60	Pump One number of high pressure pump of serial dual piston type with selectable 0.001 to 15mL / min flow rate with a flow reproducibility of $\pm 0.1\%$. Should be able to upgrade and run a compositional ternary gradient set up.	Pump flow rate modified to 0.001 to 5 ml/min

				IC columns for analyses for the listed above should be quoted with respective guard columns. The columns should have electronic chip to store data and history of column use. It should also be possible to record the number of injections and the working hours.	IC columns for analyses for the listed above should be quoted with respective guard columns. It should also be possible to record the number of injections and the working hours.
17			61	<p>Accessories: Conductivity Detector with dynamic working range:</p> <p>1. One number of conductivity detector for analysis of anion and cation, should be microprocessor based with a Thermostated micro-flow cell conductivity block with an accuracy of $\leq 0.001^{\circ}$ C. The user should be able to set temperature of the conductivity block between 20 – 50 C.</p> <p>4. Temperature coefficient range 0-5%</p>	<p>Accessories: Conductivity Detector with dynamic working range:</p> <p>1. One number of conductivity detector for analysis of anion and cation, should be microprocessor based with a Thermostated micro-flow cell conductivity block with an accuracy of $\leq 0.001^{\circ}$ C. The user should be able to set temperature of the conductivity block between ambient to 50 Deg C.</p> <p>4. Temperature coefficient/compensation range 0-5%</p>
18			62	Standards and buffer solution / reagents must be provided along with instrument	Standards for speciation calibration standards, buffer solution / reagents must be provided along with instrument

19. Terms and Conditions (new addition)

1. All bidders should carry out a mandatory technical competency test on the quoted instrument model for both the tenders . Three (3) test samples will be distributed to each bidder on 29th June 2018 @ 3.30 PM after the bid opening.
 2. Duly signed and stamped test reports addressed to “The Director STIC” which is carried out on quoted instrument should be submitted at STIC office on or before 06th July 2018 3.30PM
 3. The report should be attached with soft copies of all instrument files related to data collection, ASCII, *.CSV files, necessary graphs and images. The report should contain make and model of the instrument, Year of installation, name of the Laboratory where test is conducted. Reports should also contain all technical specifications claimed by bidder in the tender document.
- 20.** The term Nationalized bank wherever mentioned is modified to nationalized bank /scheduled bank.
- 21. Check list** Item no 4

Bid Security Form - Section X (New addition)

22. Read title of page no 66 as **Annexure II** list of spares and consumables

16-06-2018

Director, STIC

Section X

BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas (hereinafter called the “tenderer”) has submitted their offer dated for the supply of (hereinafter called the “tender”) against the purchaser’s tender enquiry No..... KNOW ALL MEN by these presents that WE of having our registered office at are bound unto **The Director STIC Cochin University P.O Kochi 682022** (hereinafter called the “Purchaser”) in the sum of for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this day of 20.....

The conditions of this obligation are :

If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.

- (1) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-
 - a) If the tenderer fails to furnish the Performance Security for the due performance of the contract
 - b) Fails or refuses to accept/execute the contract.

WE undertake to pay the Purchaser upto the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force upto and including 90 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

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Name and designation of the Officer

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Seal, name & address of the Bank and address of the Branch