



REQUEST FOR QUOTATIONS

No: RFQ-VNSTC 202103-01

For

INDUCTIVELY COUPLED PLASMA-MASS-SPECTROMETRY ICP-MS

NAME OF COMPANY: STC VIETNAM COMPANY LIMITED (STC Vietnam, “Buyer”)

ADDRESS: ROOM 905, 9TH FLOOR, TAIYO BUILDING, 97 BACH DANG, HA LY WARD, HONG BANG DISTRICT, HAIPHONG, VIETNAM

Dear Sirs/ Madams,

STC Vietnam was established in 2013 to strengthen STC’s global network and to better serve the growing number of businesses expanding their manufacturing facilities to various parts of South East Asia. STC Vietnam initially specialized in extensive textile and apparel testing services. Following year 2017, the company developed chemical testing capability to assist manufacturers, importers and exporters in international compliance of chemical safety. In 2018, STC Vietnam expanded to toy testing to the US, EU and Japan requirements in order to provide one-stop convenient, reliable and comprehensive Testing, Inspection and Certification solutions to meet the increasing needs of quality assurance services in the region. Today, STC Vietnam is accepted by the US CPSC for third party testing to the CPSIA and accredited by VILAS for ISO/IEC 17025 and authorized by Directorate for Standards, Metrology and Quality under degree 107/2016/ND-CP.

We kindly request you to submit your quotation for Inductively Coupled Plasma-Mas-Spectrometry ICP-MS.

When preparing your quotation, please be guided by the INSTRUCTION TO SUPPLIER attached hereto. Quotations shall be submitted in English and shall be marked with the note **“RFQ-VNSTC 202103-01 for INDUCTIVELY COUPLED PLASMA-MASS-SPECTROMETRY ICP-MS”**

For interested Parties, please submit your Quotations to the below email address on or before 26 April 2021:

enquiry@stc.group

The Buyer is not bound to accept any quotation, nor award a contract, nor be responsible for any costs associated with a Supplier’s preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.

Thank you and we look forward to receiving your quotation.

Best regards,

STC Vietnam Company Limited

INSTRUCTION TO SUPPLIER

Customs clearance, if needed, shall be done by:	<input checked="" type="checkbox"/> Supplier
Address of Delivery Location	ROOM 905, 9 TH FLOOR, TAIYO BUILDING, 97 BACH DANG, HA LY WARD, HONG BANG DISTRICT, HAIPHONG, VIETNAM
Delivery Schedule	<input checked="" type="checkbox"/> Required
Preferred Currency of Quotation ¹	<input checked="" type="checkbox"/> United States Dollars, or <input checked="" type="checkbox"/> Vietnamese Dong
Value Added Tax on Price Quotation	<input checked="" type="checkbox"/> Must be inclusive of VAT and other applicable indirect taxes
After-sales services required	<input checked="" type="checkbox"/> Warranty on Parts and Labor for a minimum period of 1 year <input checked="" type="checkbox"/> Provision of Service Unit when pulled out for maintenance/ repair <input checked="" type="checkbox"/> Installation and adjustment of the goods <input checked="" type="checkbox"/> Instruction on Operation and Maintenance <input checked="" type="checkbox"/> Technical Support <input checked="" type="checkbox"/> Maximum 24 hours for urgent repair actions
Deadline for the Submission of Quotation	26 April 2021, 18:00 (Vietnam time)
All documentations, including catalogs, instructions and operating manuals, shall be in this language	<input checked="" type="checkbox"/> English
Documents to be submitted	<input checked="" type="checkbox"/> Company profile (short info up to 1 page); <input checked="" type="checkbox"/> Detailed technical description of the offered goods: brochures, technical data sheet and specifications; <input checked="" type="checkbox"/> Certificate of origin (C / O) issued by the US Chamber of Commerce and a quality certificate (C / Q) of the manufacturer. <input checked="" type="checkbox"/> Statement or certificate of origin for the offered equipment; <input checked="" type="checkbox"/> Name and address of authorized service in Vietnam
Period of Validity of Quotes starting the Submission Deadline Date	<input checked="" type="checkbox"/> 12 months
Payment Term	<input checked="" type="checkbox"/> An advance payment is allowed up to a maximum of 30% of contract value.
Evaluation Criteria	<input checked="" type="checkbox"/> Technical responsiveness/Full compliance to requirements and lowest price. <input checked="" type="checkbox"/> Minimum 3 years of experience in the field; <input checked="" type="checkbox"/> Availability of certificates of quality and origin for the offered equipment; <input checked="" type="checkbox"/> Maximum delivery period not to exceed 06 months upon signature of contract;



	<input checked="" type="checkbox"/> Availability of authorized service in Vietnam and compliance with the after-sales services requirements.
The Buyer will award to:	<input checked="" type="checkbox"/> One and only one supplier
Type of Contract to be Signed	<input checked="" type="checkbox"/> Contract for Goods and/or Services
Conditions for Release of Payment	<input checked="" type="checkbox"/> Complete delivery and installation <input checked="" type="checkbox"/> Passing all Testing <input checked="" type="checkbox"/> Completion of Training on Operation and Maintenance
Annexes to this RFQ	<input checked="" type="checkbox"/> Technical Specifications of the Goods Required (Annex)
Contact Person for Inquiries	Mia Tran Email: miatran@stc.group Contact number: +84 225 3668188

ANNEX: TECHNICAL SPECIFICATIONS

No.	Name of equipment/ Description	Code
	INDUCTIVELY COUPLED PLASMA-MASS-SPECTROMETRY (ICP-MS)	
	Model:	
	Brand:	
	General information:	
	- Follow standards ISO 9001:2008 and ISO 14001:2004;	
	- Safety standards: IEC 61010-1:2001 / EN 61010-1:2001, CAN/CSA C22.2 No.61010-1-04,UL No.61010-1; IEC 61326-1:2005 / EN61326-1:2006, ICES-001:2006, AS/NZS CISPR 11:2004;	
	- Brand new 100%, produced in 2019, can operate at once;	
	<u>- ICP-MS can be assembled with HPLC, GC, capillary electrophoresis (CE), ion chromatography (IC);</u>	
	- Simultaneous analysis of 70 metal elements in soil and water with high sensitivity.	
1.1	HARDWARES	
	<u>Sample converter</u>	
	- Mist spray system (nebulizer):	
	+ Concentric mist system with low sample flow control.	
	+ Sampling rate: ~ 0,2 mL/min	
	- Spray Chamber:	
	+ Made of quartz; Scott-designed, double-pass helps to remove large aerosol droplets.	
	+ Cooling by the Peltier technique	
	+ Temperature control range: -5°C to +20°C (with external thermostat support, temperature range 15-30 °C)	
	- Peristaltic pump:	
	+ Placing close to the nozzle minimizes dead volume for faster sampling;	
	+ Low pulse, high precision; 10-roller peristaltic pump	
	+ Three separate channels allow precise injection of samples and internal standards (Internal standard - ISTD).	
	- High matrix feeder - assists with the analysis of samples with high total dissolved solids:	
	+ Unique UHMI sample dilution technology.	
	+ Substrate high-matrix samples directly into ICP-MS without dilution;	
	+ Using in-machine mist dilution technology - eliminates the flaws of traditional liquid dilution method by the user Place high-matrix samples directly into ICP-MS without dilution;	
	+ The total dissolved solids in the analytical sample can be up to 25% (25% TDS)	

	<u>Plasma system</u>	
	- RF transmitter:	
	+ Solid State structure with high durability does not have to be replaced during use;	
	+ Digital control;	
	+ Broadcast frequency RF: 27 MHz;	
	+ Rating: 500W to 1600W (1.6 kW);	
	- Plasma Torch:	
	+ Material: made of monolithic quartz.	
	+ Injection hole diameter: 2.5 mm;	
	- Plasma Torch position:	
	+ Controlled by 3-axis stepper motor (horizontal, vertical and sample depth) in 0.1mm increments;	
	+ Automatically adjusts to the optimum position after maintenance;	
	+ The ability to adjust the position horizontally and vertically: ± 2 mm;	
	+ Ability to adjust sample depth: 3 to 28mm;	
	- Plasma Shield Torch: Unique design that precisely controls the plasma potential and ionic energy. Increase sensitivity, reduce noise;	
	- Preset plasma condition function: The device has the function of preset optimal plasma conditions and recording, the user does not need to fine-tune every time. De-signaling for elements with high ionization potential such as Be, Zn, As, Cd in 10% HNO ₃ solution reaches less than 10%.	
	<u>Interface</u>	
	- Sampling cone	
	+ Structure: Ni coating on Cu base	
	+ Diameter: 1 mm;	
	+ Easy to disassemble, no tools needed;	
	- Skimmer cone:	
	+ Made of Ni;	
	+ Diameter: 0,45 mm;	
	+ Precise control of the head temperature;	
	<u>Ion lens</u>	
	- The ion lens system offers high ion transmission:> 1 GHz / pmm sensitivity at 2.5% CeO/Ce	
	- Ion separator lens:	
	+ Placed just behind the skimmer cone, converge the ions as soon as they enter the medium vacuum;	
	+ Interaction with the same ions (planar);	
	+ Operates at fixed voltage;	
	- Lens separator ion axial:	

	+ Removal of neutral molecules from the ionic flux (mass deflector and baseline interference);	
	+ Protect collision / reaction chamber and high vacuum zone from contamination;	
	<u>Reaction system</u>	
	- Octopole type reaction system	
	+ Uses Energy Kinetic Classification (KED) technology to eliminate signal interference;	
	+ Capable of operating in two modes: helium (He) collision mode and simple agent gas reaction mode (like H ₂) to limit interference;	
	+ Analysis with uniform conditions for stable signal and reduced noise. The octopole allows for efficient ion conduction and ion concentration;	
	- Air controller	
	+ There is a He gas controller for He mode;	
	+ Automatically switches gas when using multiple gases in one measurement method;	
	+ Gas conversion time: ≤ 5 mins;	
	+ Other gas controllers such as H ₂ , Xe, NH ₃ can be installed for research applications;	
	Block analyzer	
	+ Spectral range allowed from 2 - 260 amu;	
	+ Block analysis: True hyperpolic quadrupole; Frequency 3MHz	
	+ Spinning speed (from Li to U): 55.6 million amu / second;	
	+ Scanning speed (from Li to U): > 3000 amu / sec;	
	+ Sensitivity according to frequency of occurrence Cs:	
	Low mass range: 5 x 10 ⁻⁷ ;	
	High mass range: 1 x 10 ⁻⁷ ;	
1.2	Detector	
	- Orthogonal detector system (ODS) for high sensitivity, low background noise, wide linear dynamic range up to 10 ¹¹ .	
	- Get data simultaneously in both pulse counting and analog modes;	
	- Integrated timing for analog and pulse count modes: 100µs;	
	- Settling time is not required between measurements in TRA mode	
	- Linear kinetic range: from 0.1cps to 10 Gcps	
1.3	Vacuum system:	
	- 3-level vacuum forming system;	
	- The vacuum system consists of: three-stage split molecular turbo pump and primary pump located outside;	
	- There is an automatic recovery technique (the system runs in a standby state when power is lost, restores the value when the power is restored);	
	So it takes no time to wait for the vacuum restoration after the power failure.	

1.4	Data analysis and control software for ICP-MS	
	- Operating System: Windows 7, 10	
	- Full control of ICP-MS and LC systems (in case of pairing LC with ICP-MS)	
	- There are modes of automatic adjustment and method expansion.	
	- Easily retrieve reports in Microsoft Excel format.	
	- Early Maintenance Feedback (EMF).	
	- There is a one-time sample analysis or sequence analysis	
	- Real-time display of sequence analysis status and current sample data acquisition	
	- Display of tabular data analysis results, with real-time updates during sequence analysis.	
	- Obtain isotope ratios and process data	
	- Analysis of spectral data and chromatographic data.	
	- Conforms to 21 CFR Part 11 compliant (Optional)	
1.5	Auto sampler	
	<i>Agilent Integrated Auto sampler (I-AS) for 7900</i>	
	- Sample tray: 79 vials of 6 ml and 10 vials of 18ml;	
	- Sampling hands and probes are made of non-metallic material;	
	- There is a port to wash the sample suckers by continuous flow;	
	- Standard tray and washing solution: 3 vials x 100ml;	
	- Samples required for priority analysis can be added to any position;	
	- Easy to set sequence via graphical interface;	
	- Design for super trace element analysis applications;	
	- Automatic dilution and separate sampling;	
	Accessories:	
	- Type E Tray (polypropylene) - 89 sample positions (79 vials of 6 ml and 10 vials of 18 ml)	
	Includes 200 vials of 6ml and 18ml	
	- Sample vials of 18 mL, 55 pieces / box	
	- PFA standard probe, internal diameter 0.3mm	
1.6	Water chiller	
	- Provided by Agilent Technologies to ensure stable operation of the device	
	- Flow rate: ≤ 13.25 liters / min	
	- Pressure (adjustable): 20 to 100 psi.	
	- Temperature range: $-10^{\circ}\text{C} - 40^{\circ}\text{C}$	
	- Power at 20°C : $\geq 1925\text{W}$	
1.7	Air filter	
	- Filter	
	+ Two triple filter cartridges	
	+ Single Position Base Plate	

	+ Spare bearings	
	- Pipe cutting tools	
	- Stainless steel pipe has been cleaned 6m long, coupling	
	- 1 position base	
1.8	Standard solution set for checking machine installation	
	<i>ICP-MS Checkout Solutions</i>	
1.9	Machine standard solution (100ml / vial)	
	- Including Li, Co, Y, Ce, Tl, each 10ppm in a mixture of 2% HNO ₃ .	
1.10	PA Tuning Solution Kit), 100 mL/vial	
	Tuning 1: 20 ppm đối với Zn, Be, Cd, As; 10 ppm for Ni, Pb, Mg; 5ppm for Tl, Na Al, U, Cu, Th, Ba, Co, Sr, V, Cr, Mn, 6Li, Sc, In, Lu, Bi; 2.5 ppm each of Y, Yb; matrix 2 to 5% HNO ₃	
	Tuning 2: 10 ppm for Mo, Sb, Sn, Ge, Ru, Pd; 5 ppm of Ti, Ir; matrix 10% HCl / 1% HNO ₃ / trace HF	
1.11	Multi-Element Calibration Standard	
	* Multi-Element Calibration Standard-2A, 100 mL: 10 mg/L of Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V, Zn; matrix 5% HNO ₃	
	* Multi-Element Calibration Standard-3, 100 mL: 10 mg/L of Sb, Au, Hf, Ir, Pd, Pt, Rh, Ru, Te, Sn; matrix 10% HCl/1% HNO ₃	
1.12	Basic consumable kit	
	- Conductor for peristaltic pump for sample filling system, 12 pcs / pack	
	- Peristaltic pump line for waste stream, 12 pieces / pack	
	- Peristaltic pump conductor for internal standard, 12 pieces / pack	
	- Plasma torch	
	- Seal rings for taper taper, 3 packs	
	- Oil for vacuum pump, 1 liter	
1.13	Computer and printer as follows or equivalent self-purchased by the customer (license software)	
	- Processor: Intel® Core.2 Duo;	
	- Memory: 2 GB (2x1GB);	
	- HDD: 250 GB SATA 7200;	
	- Microsoft® Windows® 7 Professional;	
	- 19" LCD Monitor	
	- 8-port 10/100Base-TX autosensing switch (G2402A)	
	- Printer HP Lazer Jet 3015D	
1.14	Super clean Helium cylinders and gauges	
	- Purity 99.999%, pressure 150 bar, volume 41 liters.	
1.15	Super clean Ar air tank and gauge	
	- Purity 99.999%, pressure 150 bar, volume 41 liters.	

1.16	Exhaust system	
1.17	Basic chemicals for sample preparation for ICP-MS	
	- Acid HNO ₃ , concentration 60%, bottle 250ml.	
	- Sulfuric acid, 96% concentration, 250ml vial.	
	- Acid Chlohydric, concentration 30%, bottle 250ml.	
	- H ₂ O ₂ , concentration 31%, vial 1 liter.	
1.18	UPS	
	- Protect data when power is lost.	
	- Rating: 10KVA.	
	- Input voltage: 220VAC/50Hz.	
	- Standard retention time: 13 minutes at 100% load.	