TENDER REF. NO.: KK/173/2026/HTD

MINISTRY OF HEALTH

NEGARA BRUNEI DARUSSALAM

SUPPLY, DELIVERY, INSTALLATION , TESTING AND COMMISSIONING OF ONE (1) UNIT OF ION CHROMATOGRAPHY SYSTEM FOR FOOD CHEMISTRY LABORATORY, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

TENDER FEE : $50.00

RECEIPT NO. :

CLOSING DATE : ON TUESDAY, 18th August 2026

TIME : 2.00 PM

FOA :

THE CHAIRMAN
MINI TENDER BOARD, TENDER BOX
GROUND FLOOR, MINISTRY OF HEALTH
COMMONWEALTH DRIVE
BANDAR SERI BEGAWAN BB3910
NEGARA BRUNEI DARUSSALAM

[CLUSTERING]

SECTION 2

SPECIFICATIONS AND REQUIREMENTS

TENDER REFERENCE NO.: KK/173/2026/HTD

INVITATION TO TENDER
SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF ONE (1) UNIT OF ION CHROMATOGRAPHY SYSTEM FOR FOOD CHEMISTRY LABORATORY, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
1	**STANDARD FEATURES**
1.0	**GENERAL**
1.1	Tenderer is to supply one (1) completely functional, brand new, computer-controlled Ion Chromatography (IC) system complete with required accessories needed to analyse anions and cations in wide range of sample types.
1.2	The IC system shall consists of, but not limited to the following major components, complete with all software, hardware and interface necessary to make a fully integrated system required to analyse trace elements in wide range of matrices: 1. Ion Chromatography instrument with complete accessories, including (but not limited to): a. IC pump b. Injection valve c. Conductivity detector d. UV/Vis Detector e. Suppresor module f. CO^2 Suppressor module g. Integrated column oven h. Automatic inline sample ultrafiltration i. Automatic inline sample dialysis j. Automatic inline dilution 2. Data Acquisition System 3. Consumables 4. Other mandatory accessories
1.3	The IC instrument must be a bench-top model.
1.4	The instrument must ensure easy operation and maintenance, and reproducible results.
1.5	The system offered must be able to analyse wide range of sample matrix with unknown composition not limited to low matrix water samples to complex high matrix samples such as food or environmental samples.
2.0	**TECHNICAL SPECIFICATIONS**
2.1	**ION CHROMATOGRAPHY PUMP**
2.1.1	The IC Pumps must come with check valves and are capable of:

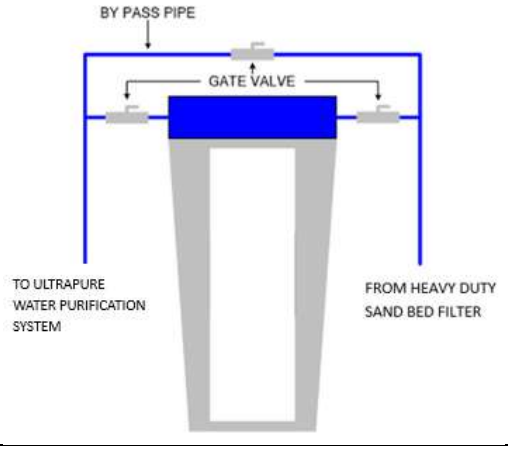
	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
2.1.1.1	automatic pump head recognition
2.1.1.2	automatic parameter reading (flow, pressure, etc.);
2.1.1.3	monitoring of service intervals
2.1.1.4	automatic flow optimization
2.1.2	Reproducibility of eluent flow must be <0.1%
2.1.2.1	Flow range must be from 0.001 to 20ml/min with a flow constancy of <0.1% of set values. Flow increment setting must be in 0.001ml steps.
2.1.2.2	Pressure range must be from 0 to 35 MPa (0 to 350 bar) at full flow range
2.1.2.3	Pump heads must be of easy maintenance type with just hand tight piston and self-replacement tools.
2.1.2.4	No gases must be required to operate and to prime the pump.
2.1.2.5	Must have safety shutdown feature which will automatically shut down the pumps when upper and lower pressure limits are violated.
2.1.2.6	No limitations in composition and concentration of eluents.
2.2	**INJECTION VALVE**
2.2.1	The injection valves must be electrically operated built-in six-way injection valve
2.2.2	They must be pressure resistant to 35MPa (350bar).
2.3	**CONDUCTIVITY DETECTOR**
2.3.1	The Conductivity Detectors must be Intelligent Detectors with Microprocessor-controlled Digital Signal Processing .
2.3.2	Low noise (Electronic noise < 0.1nS/cm) conductivity measurement
2.3.3	Measuring rate 10 measurements per second for optimum results without filtering
2.4	**UV/Vis DETECTOR**
2.4.1	Wavelength range of 190 to 900 nm in 1 nm increments.
2.5	**SUPPRESSOR MODULE**

	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
2.5.1	Must be maintenance-free and self-cleaning with 3 suppressor units that are operated, regenerated and flushed alternately. A fresh regenerated suppressor must be ready for use at the start of each chromatogram.
2.5.2	The suppressor rotor must be under warranty for minimum 10 years.
2.5.3	The suppressor module must be pressure resistant to 2.5 MPa (25 bar) minimum or higher.
2.5.4	The suppressor must be 100% solvent compatible.
2.6	**CARBON DIOXIDE SUPPRESSOR MODULE**
2.6.1	For removal of CO2 from the eluent flow. This lowers the background conductivity, improves detection sensitivity and minimizes the injection peak and carbonate peak.
2.6.2	Material of the suppressor module is Fluoropolymer which is resistance to solvents
2.6.3	Better than 98% removal efficiency of carbonate peak contributed by the sample <1 µS/cm with 3.6 mmol/L Na2CO3 eluent (<1.5 µS/cm with 9 mmol/L carbonate eluent)
2.7	**INTEGRATED COLUMN OVEN**
2.7.1	Separate compartment with space for an intelligent column.
2.7.2	Settable range of up to 80°C
2.7.3	Supports all separation columns and guard columns up to a maximum column length of 300 mm.
2.8	**AUTOMATIC INLINE SAMPLE ULTRAFILTRATION:**
2.8.1	Fully automatic inline ultrafiltration during each sample injection from sample vials placed on the IC Autosampler.
2.8.2	More than 100 samples can be injected with a single filter with negligible carryover (<0.1%) from sample to sample.
2.9	**AUTOMATIC INLINE SAMPLE DIALYSIS:**
2.9.1	Fully automatic dialysis of complex samples during sample delivery. Protein containing samples can be injected directly after dialysis.
2.9.2	Low maintenance requirement with replacement of a dialysis membrane of approximately every 100 samples.
2.9.3	Minimal carryover (<0.2%) from sample to sample.
2.10	**AUTOMATIC INLINE DILUTION:**
2.10.1	Dilution range 1:1 up to 1:100

	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
2.10.2	Calibration out of one stock solution
2.10.3	Automatic calculations for sample preparation, analysis and report.
3.0	**DATA ACQUISITION SYSTEM**
3.1	Data acquisition system must be supplied for the control of the IC and its auxiliary equipment as well as allowing users for the recording and reviewing of the analysis data.
3.2	The data acquisition system must consist of, but not limited to the following components: **Desktop PC with:** a. One (1) unit of desktop PC b. At least 32" digital monitor c. Genuine Windows 10 or latest Windows operating system preinstalled. The operating system must be compatible with the software use to control the IC and review its data. d. Genuine latest Microsoft Office software which should include Word, Excel and Powerpoint e. Latest compatible processor for use with IC software f. At least 500gb SSD hard drive g. Comes with at suffient amount of interface ports (USB ports, ethernet ports) needed to establish connection to the equipments. h. Comes complete with accessories such as power adapter, mouse, keyboard, color printer (support duplex printing, approx 20 ppm print speed) and three (3) toner catridges for each colour.
3.3	**SOFTWARE**
3.3.1	The software must be capable of running both instrument control and data evaluation simultaneously.
3.3.2	The software must have versatile integration and calibration modes, batch processing and reprocessing, database functions, manual peak integration, statistics functions, report generator, data export, different safety steps and comprehensive GLP functions.
3.3.3	Automatic detection of hardware (including columns)
4.0	**CONSUMABLES**
4.1	Two (2) unit Anion column: ▪ 5 µm particle size ▪ dimension 150 x 4.0 mm
4.2	Two (2) unit Anion Guard column suitable to be used with item 2.13.1
4.3	Two (2) unit Anion column: ▪ 5 µm particle size ▪ dimension 250 x 4.0 mm
4.4	Two (2) unit Anion column: ▪ 5 µm particle size ▪ dimension 50 x 4.0 mm

	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
4.5	One (1) unit Cation column: ▪ 5 µm particle size ▪ dimension 150 x 4.0 mm
4.6	One (1) unit Cation Guard column suitable to be used with item 2.13.5
4.7	Three (3) unit Hypersil GOLD C18 column: ▪ 5 µm particle size ▪ dimension 4.6 mm ID x 150 mm
4.8	Two (2) pieces magnetic stirrer
4.9	Two (2) pieces intelligent dosing unit
4.10	Three (3) packs Stopper with perforation, pack of 2000 pieces
4.11	Five (5) packs Sample tubes 11ml, pack of 2000 pieces
4.12	Five (5) pieces sample rack 148 x 11ml, 3 x 300ml
4.13	Four (4) pieces Container, 10L
4.14	Nine (9) pieces bottle, 300ml, suitable to be used with item 2.13.11
4.15	Two (2) pieces Eluent bottle, 2L
4.16	Two (2) pieces aspiration filter
4.17	Two (2) pieces spare filter for inline filter
4.18	Five (5) bottles Sodium bicarbonate/sodium carbonate concentrate, IC eluent concentrate, Na_2CO_3 64mM and $NaHCO_3$ 20mM in water, 2.5L per bottle
4.19	Five (5) bottles Sodium carbonate concentrate, IC eluent concentrate, Na_2CO_3 72 mM in water, 2.5L per bottle
4.20	Ten (10) pieces glass bottle square GL45, 1L
4.21	Ten (10) pieces Siphon GL45 3 x UNF 10/32
4.22	Ten (10) pieces coupling nozzle UNF 10/32
4.23	Ten (10) pieces Coupling olive UNF 10/32
4.24	Five (5) pieces pump tubing, 3-stopper
4.25	Five (5) bottles Multielement Ion Chromatography Anion Standard, certified reference material, 50ml (staggered delivery)

	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
4.26	Five (5) bottles Multielement Ion Chromatography Cation Standard, certified reference material, 50ml (staggered delivery)
4.27	Five (5) bottles ICP Multi-element Standard solution XVI, 21 elements in diluted nitric acid, certified reference material, 100 mg/L (staggered delivery)
4.28	Five (5) bottles ICP Multi-element Standard solution IV, 23 elements in diluted nitric acid, certified reference material, 1000 mg/L (staggered delivery)
4.29	Five (5) bottles Nitrate standard for IC, TraceCERT®, 1000mg/L, nitrate in water, 100ml (staggered delivery)
4.30	Five (5) bottles Nitrite standard for IC, TraceCERT®, 1000mg/L, nitrite in water, 100ml (staggered delivery)
4.31	Three (3) bottles of Au 100 mg/l in HCl 2%, ICP MS Standard; 100ml (staggered delivery)
4.32	Five (5) bottles of NIST 1643f Trace Elements in Water, Std Reference Material, 250 ml (staggered delivery)
4.33	Five (5) bottles Sulfuric acid concentrate, 0.1M H_2SO_4 in water (0.2N), 1L
4.34	Five (5) bottles Concentrated Sulfuric acid, 99.999%, 100ml
4.35	Ten (10) bottles Methanol, ≥99.9%, HPLC grade, 2.5L
4.36	Five (5) bottles sodium hydroxide solution, 0.1M NaOH in water (0.1N), 1L
4.37	Five (5) bottles Oxalic acid concentrate, 0.1M $(COOH)_2$ (0.2N), 1L
4.38	Five (5) bottles Oxalic acid, purified grade, 99.999%, 100g
4.39	Ten (10) bottles Acetone, ≥99.9%, HPLC grade, 1L
4.40	Ten (10) sets of Carrez Clarificaton Kit for sample preparation in food analysis, 5-fold concentrate
4.41	Five (5) packs Whatman® qualitative filter paper, Grade 2, circles, diameter 150mm, pack of 100
4.42	Five (5) packs Whatman® glass microfiber grade GF/A filter discs 1.6 µm pore size, binder free, 0,26mm thick, 125mm diameter, pack of 100
4.43	Five (5) packs Syringe Filter PES (Polyethersulfone) Membrane pore diameter 0.45 µm, luer lock, pack of 100
4.44	Five (5) packs Syringe Filter PES (Polyethersulfone) Membrane pore diameter 0.22 µm, luer lock, pack of 100
5.0	**OTHER MANDATORY ACCESSORIES**
5.1	**ULTRAPURE WATER SYSTEM**

	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
5.1.1	One (1) lot of water purification system which can deliver ultrapure water directly from tap for use with IC system.
5.1.2	Able to provide Type I ultrapure water with resistivity: 18.2 MΩ.cm @ 25°C
5.1.3	Heavy duty deep bed sand filter and sediment filter installation to enhance in-depth filtration and increased dirt retention capacity.
5.1.4	Bypass valve(s) to be incorporated into the piping system in order to bypass all external filters (item 2.14.3) when required 
5.2	**UNINTERRUPTED POWER SUPPLY**
5.2.1	One (1) unit of uninterrupted power supply (UPS) with suitable power supply rating must also be provided and connected to the instrument system and workstation
6.0	**SITE PREPARATION**
6.1	It is **MANDATORY** for the tenderer to do site visit prior to tender submission to discuss site requirements. Non-attendance will be considered as non-compliance.
6.2	Tenderer shall ensure that the site preparation for the placement of the system taking into the consideration on the safety of the end user during the operation of the instrument.
6.3	All works involving workbench modification and fabrication, water supply, piping, drainage, wall and floor hacking, additional electrical supply including wiring, outlets and isolators and any others, deemed necessary to ensure safe and successful installation and operation of the complete system should be included.
6.4	The site preparation details should be listed out in the quotation/document submitted.
7.0	**POWER SUPPLY**
7.1	All electrical and electronic components in the system must be able to utilise mains power supply of 220 – 240V AC, 50 – 60 Hz. Otherwise, vendor to include additional items or work required to ensure successful operation.
8.0	**TRAINING**
8.1	Training shall be included as follows:

	SECTION 1 – USER REQUIREMENTS
NO.	**DESCRIPTIONS**
8.2	On-site training for ALL staff members expected to handle the machine. Please ensure that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory.
8.3	Certificate of competence is to be issued to all trainees after completion of training.
8.4	The successful tenderer needs to ensure the key users are updated on the current or relevant information related to the system used. They should provide **ONE** (1) off-site benchwork training for **TWO** (2) key users at a laboratory setting deemed suitable by users. All expenses for attending the benchwork training shall be borne by the vendor; full registration, insurance, air ticket, daily allowance, accommodation, transport to and from the airport and place of training.
9.0	**WARRANTY**
9.1	A minimum of one (1) year warranty for manufacturer's defect on the hardware, software and all cost of repairs and/or replacements should be included
9.2	After-sales services must be provided for the product after one (1) year
9.3	One-off preventive maintenance to be carried out just before or soon after the one-year warranty period. Scope of work to follow manufacturer's manual / recommendation specific for the equipment offered, which include: ▪ Supply, delivery and installation of preventive maintenance kits and/or consumables ▪ Software update (to obtain prior authorization from user and BME) ▪ Inspection ▪ cleaning ▪ alignment ▪ calibration ▪ any other related preventive maintenance works required
10.0	**DELIVERY**
10.1	Items offered **MUST be delivered within** _____ from date of approval. (Vendor to indicate the delivery period.)
2	**WARRANTY**
1	Tenderer to include warranty period of **at least one (1) year**
2	Tenderers to **acknowledge** the Warranty Undertaking Form in Section 4 stating the terms of warranty provided for the equipment in the tender for the period of one year.
3	**END USER TRAINING**
1	Conduct **user training** to the all-end users by an application specialist or competent local engineer including but not limited to: ▪ Basic user operation, user troubleshooting and user maintenance ▪ Provide Operating manual (Hardcopy and/or Softcopy)
2	Tenderer must **prepare a training attendance or proof of training done to end user during commissioning**

SECTION 2 – PRICE PROPOSAL	
UNIT PRICE:	**TOTAL PRICE:**

SECTION 3 - PROCUMENT AND TECHNICAL SPECIFICATION	
BRAND:	**MODEL:**
COUNTRY OF ORIGIN:	**UNIT PRICE (B$):**
WARRANTY PERIOD:	**TOTAL PRICE (B$):**
YEAR INTRODUCED TO MARKET:	**LAST COUNTRY SOLD TO:**
PRICE VALIDITY: [AT LEAST ONE (1) YEAR PRICE VALIDTY]	**DELIVERY TIME:**
AUTHORIZED DISTRIBUTOR: **(AUTHORIZED DISTRIBUTOR LETTER ATTACHED)**	
DETAILED BROCHURE INCLUDED	
USER AND SERVICE MANUALS:	
MAINS POWER SUPPLY:	
BATTERY	
POWER ADAPTER/CHARGER OUTPUT RATING:	
EQUIPMENT AMBIENT OPERATING TEMPERATURE RANGE:	
NUMBER OF TECHNICAL SUPPORT (ENGINEER/TECHNICIAN) Please provide training or certification for locals who is trained/certified	
DIMENSIONS AND WEIGHT OF MAIN UNIT:	
EQUIPMENT WHOLE LIFE TIME SUPPORT:	

SECTION 4 – WARRANTY UNDERTAKING FORM

Tenderer, on behalf of the manufacturer, acknowledged and agrees that when equipment is under the warranty period, must cover the scope of normal warranty below at no additional cost:

NORMAL WARRANTY

- Warrants the supplied laboratory equipment and its accessories to be in good condition, in working order and free from defects to the extend such equipment do not comply with specifications, under normal use for the warranty period. The scope of warranty covers to its maximum extent permitted by applicable law.
- During warranty, tenderer must rectify issues arise from any mechanical, technical or software faulty as soon as it is reported.
- **Exchange warranty**; Providing replacement units or OEM parts:
    A. Warranty against defects – Manufacturing defects or Equipment malfunction resulted from mechanical, electrical or software failure during Commissioning or within the first _____ months of use
    B. Faulty workmanship or unsatisfactory condition during delivery or commissioning
    C. If a unit or accessory is deemed used item or refurbished item (not a new unit) by the user and BME Unit.
- _____**time Planned Preventive Maintenance (PPM) PER YEAR** according to Manufacturer's Preventive Maintenance Guideline.

EXCLUSION FROM WARRANTY

MOH understand that the following circumstances are not covered in the warranty and Tenderer may quote for repair and subject to MOH approval:

- Unauthorized modifications - an alteration or repair by anyone other than the Manufacturer or Authorized agent during warranty period.
- Accidental damage or problems caused by negligence or mishandling, subject to appropriate justification by both parties.
- Vandalism and Natural disasters
- Normal wear and tear

ANY OTHER EXCLUSION

Tenderer may propose below to include items or terms which is not listed in the exclusion list above for MOH consideration.

NO.	TERMS AND CONDITIONS
1	Tenderer must be registered with the Ministry of Health.
2	**TENDER FORM should be filled** completely including the **USER REQUIREMENT FORM** (if available). Submission of incomplete form **MAY** cause **DISQUALIFICATION OF TENDER.**
3	Tenderers are **required to submit individual proposal booklets for each item listed**. Each item shall be treated as a standalone submission
4	Each tenderer is allowed to quote **ONE BRAND WITH ONE PRICE ONLY** for each item. Submission of more than one brand and price will cause **DISQUALIFICATION OF TENDER.**
5	All consumables supplied throughout this tender shall have a minimum expiry date of **twelve (12) months / on delivery** (if applicable). Should the consumables be urgently needed, provision of consumables with expiry date of less than twelve (12) months should be first agreed by the User before delivery is made (if applicable).
6	Brochures / catalogues should be submitted / attached with tender document.
7	Any room renovation which may be required, it is mandatory to conduct site visit (if applicable)
8	**DELIVERY PERIOD:** (Please state)
9	**PRICE VALIDITY:** The quotation shall remain valid for **12 MONTHS** from the final date for the submission of the quotation and no supplier may withdraw his/her quotation within that period. The Government reserves the right to extend this period if deemed necessary provided that such extension to the quotation validity period shall have written consent of the supplier(s).
10	**The equipment supplied must be newly manufactured, unused, and in its original, sealed packaging. The equipment must not be previously owned, refurbished, or reconditioned in any form.** During **delivery**, the vendor is required to **provide proof of manufacture date confirming the equipment is new.**

SECTION 3

TENDER FORM

TENDER REFERENCE NO.: KK/173/2026/HTD

INVITATION TO TENDER
SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF ONE (1) UNIT OF ION CHROMATOGRAPHY SYSTEM FOR FOOD CHEMISTRY LABORATORY, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

SECTION 1 – USER REQUIREMENTS				
NO.	**DESCRIPTION**	**Tick (✓)**		**STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE**
		Y	**N**	
1	**STANDARD FEATURES**			
1.0	**GENERAL**			
1.1	Tenderer is to supply one (1) completely functional, brand new, computer-controlled Ion Chromatography (IC) system complete with required accessories needed to analyse anions and cations in wide range of sample types.			
1.2	The IC system shall consists of, but not limited to the following major components, complete with all software, hardware and interface necessary to make a fully integrated system required to analyse trace elements in wide range of matrices: 1. Ion Chromatography instrument with complete accessories, including (but not limited to): a. IC pump b. Injection valve c. Conductivity detector d. UV/Vis Detector e. Suppresor module f. CO^2 Suppressor module g. Integrated column oven h. Automatic inline sample ultrafiltration i. Automatic inline sample dialysis j. Automatic inline dilution 2. Data Acquisition System 3. Consumables 4. Other mandatory accessories			
1.3	The IC instrument must be a bench-top model.			
1.4	The instrument must ensure easy operation and maintenance, and reproducible results.			
1.5	The system offered must be able to analyse wide range of sample matrix with unknown composition not limited to low matrix water samples to complex high matrix samples such as food or environmental samples.			
2.0	**TECHNICAL SPECIFICATIONS**			
2.1	**ION CHROMATOGRAPHY PUMP**			

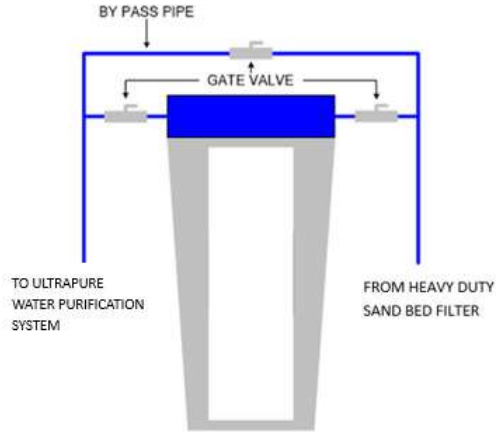
SECTION 1 – USER REQUIREMENTS				
NO.	DESCRIPTION	Tick (✓)		STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE
		Y	N	
2.1.1	The IC Pumps must come with check valves and are capable of:			
2.1.1.1	automatic pump head recognition			
2.1.1.2	automatic parameter reading (flow, pressure, etc.);			
2.1.1.3	monitoring of service intervals			
2.1.1.4	automatic flow optimization			
2.1.2	Reproducibility of eluent flow must be <0.1%			
2.1.2.1	Flow range must be from 0.001 to 20ml/min with a flow constancy of <0.1% of set values. Flow increment setting must be in 0.001ml steps.			
2.1.2.2	Pressure range must be from 0 to 35 MPa (0 to 350 bar) at full flow range			
2.1.2.3	Pump heads must be of easy maintenance type with just hand tight piston and self-replacement tools.			
2.1.2.4	No gases must be required to operate and to prime the pump.			
2.1.2.5	Must have safety shutdown feature which will automatically shut down the pumps when upper and lower pressure limits are violated.			
2.1.2.6	No limitations in composition and concentration of eluents.			
2.2	**INJECTION VALVE**			
2.2.1	The injection valves must be electrically operated built-in six-way injection valve			
2.2.2	They must be pressure resistant to 35MPa (350bar).			
2.3	**CONDUCTIVITY DETECTOR**			
2.3.1	The Conductivity Detectors must be Intelligent Detectors with Microprocessor-controlled Digital Signal Processing .			
2.3.2	Low noise (Electronic noise < 0.1nS/cm) conductivity measurement			
2.3.3	Measuring rate 10 measurements per second for optimum results without filtering			
2.4	**UV/Vis DETECTOR**			
2.4.1	Wavelength range of 190 to 900 nm in 1 nm increments.			
2.5	**SUPPRESSOR MODULE**			
2.5.1	Must be maintenance-free and self-cleaning with 3 suppressor units that are operated, regenerated and flushed alternately. A fresh regenerated suppressor must be ready for use at the start of each chromatogram.			

SECTION 1 – USER REQUIREMENTS				
NO.	DESCRIPTION	Tick (✓)		STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE
		Y	N	
2.5.2	The suppressor rotor must be under warranty for minimum 10 years.			
2.5.3	The suppressor module must be pressure resistant to 2.5 MPa (25 bar) minimum or higher.			
2.5.4	The suppressor must be 100% solvent compatible.			
2.6	**CARBON DIOXIDE SUPPRESSOR MODULE**			
2.6.1	For removal of CO2 from the eluent flow. This lowers the background conductivity, improves detection sensitivity and minimizes the injection peak and carbonate peak.			
2.6.2	Material of the suppressor module is Fluoropolymer which is resistance to solvents			
2.6.3	Better than 98% removal efficiency of carbonate peak contributed by the sample <1 µS/cm with 3.6 mmol/L Na2CO3 eluent (<1.5 µS/cm with 9 mmol/L carbonate eluent)			
2.7	**INTEGRATED COLUMN OVEN**			
2.7.1	Separate compartment with space for an intelligent column.			
2.7.2	Settable range of up to 80°C			
2.7.3	Supports all separation columns and guard columns up to a maximum column length of 300 mm.			
2.8	**AUTOMATIC INLINE SAMPLE ULTRAFILTRATION:**			
2.8.1	Fully automatic inline ultrafiltration during each sample injection from sample vials placed on the IC Autosampler.			
2.8.2	More than 100 samples can be injected with a single filter with negligible carryover (<0.1%) from sample to sample.			
2.9	**AUTOMATIC INLINE SAMPLE DIALYSIS:**			
2.9.1	Fully automatic dialysis of complex samples during sample delivery. Protein containing samples can be injected directly after dialysis.			
2.9.2	Low maintenance requirement with replacement of a dialysis membrane of approximately every 100 samples.			
2.9.3	Minimal carryover (<0.2%) from sample to sample.			
2.10	**AUTOMATIC INLINE DILUTION:**			
2.10.1	Dilution range 1:1 up to 1:100			
2.10.2	Calibration out of one stock solution			
2.10.3	Automatic calculations for sample preparation, analysis and report.			
3.0	**DATA ACQUISITION SYSTEM**			

SECTION 1 – USER REQUIREMENTS				
NO.	**DESCRIPTION**	**Tick (✓)**		**STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE**
		Y	**N**	
3.1	Data acquisition system must be supplied for the control of the IC and its auxiliary equipment as well as allowing users for the recording and reviewing of the analysis data.			
3.2	The data acquisition system must consist of, but not limited to the following components: **Desktop PC with:** a. One (1) unit of desktop PC b. At least 32" digital monitor c. Genuine Windows 10 or latest Windows operating system preinstalled. The operating system must be compatible with the software use to control the IC and review its data. d. Genuine latest Microsoft Office software which should include Word, Excel and Powerpoint e. Latest compatible processor for use with IC software f. At least 500gb SSD hard drive g. Comes with at suffient amount of interface ports (USB ports, ethernet ports) needed to establish connection to the equipments. h. Comes complete with accessories such as power adapter, mouse, keyboard, color printer (support duplex printing, approx 20 ppm print speed) and three (3) toner catridges for each colour.			
3.3	**SOFTWARE**			
3.3.1	The software must be capable of running both instrument control and data evaluation simultaneously.			
3.3.2	The software must have versatile integration and calibration modes, batch processing and reprocessing, database functions, manual peak integration, statistics functions, report generator, data export, different safety steps and comprehensive GLP functions.			
3.3.3	Automatic detection of hardware (including columns)			
4.0	**CONSUMABLES**			
4.1	Two (2) unit Anion column: ▪ 5 µm particle size ▪ dimension 150 x 4.0 mm			
4.2	Two (2) unit Anion Guard column suitable to be used with item 2.13.1			
4.3	Two (2) unit Anion column: ▪ 5 µm particle size ▪ dimension 250 x 4.0 mm			
4.4	Two (2) unit Anion column: ▪ 5 µm particle size ▪ dimension 50 x 4.0 mm			
4.5	One (1) unit Cation column: ▪ 5 µm particle size ▪ dimension 150 x 4.0 mm			

SECTION 1 – USER REQUIREMENTS				
NO.	DESCRIPTION	Tick (✓)		STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE
		Y	N	
4.6	One (1) unit Cation Guard column suitable to be used with item 2.13.5			
4.7	Three (3) unit Hypersil GOLD C18 column: ▪ 5 µm particle size ▪ dimension 4.6 mm ID x 150 mm			
4.8	Two (2) pieces magnetic stirrer			
4.9	Two (2) pieces intelligent dosing unit			
4.10	Three (3) packs Stopper with perforation, pack of 2000 pieces			
4.11	Five (5) packs Sample tubes 11ml, pack of 2000 pieces			
4.12	Five (5) pieces sample rack 148 x 11ml, 3 x 300ml			
4.13	Four (4) pieces Container, 10L			
4.14	Nine (9) pieces bottle, 300ml, suitable to be used with item 2.13.11			
4.15	Two (2) pieces Eluent bottle, 2L			
4.16	Two (2) pieces aspiration filter			
4.17	Two (2) pieces spare filter for inline filter			
4.18	Five (5) bottles Sodium bicarbonate/sodium carbonate concentrate, IC eluent concentrate, Na_2CO_3 64mM and $NaHCO_3$ 20mM in water, 2.5L per bottle			
4.19	Five (5) bottles Sodium carbonate concentrate, IC eluent concentrate, Na_2CO_3 72 mM in water, 2.5L per bottle			
4.20	Ten (10) pieces glass bottle square GL45, 1L			
4.21	Ten (10) pieces Siphon GL45 3 x UNF 10/32			
4.22	Ten (10) pieces coupling nozzle UNF 10/32			
4.23	Ten (10) pieces Coupling olive UNF 10/32			
4.24	Five (5) pieces pump tubing, 3-stopper			
4.25	Five (5) bottles Multielement Ion Chromatography Anion Standard, certified reference material, 50ml (staggered delivery)			
4.26	Five (5) bottles Multielement Ion Chromatography Cation Standard, certified reference material, 50ml (staggered delivery)			
4.27	Five (5) bottles ICP Multi-element Standard solution XVI, 21 elements in diluted nitric acid, certified reference material, 100 mg/L (staggered delivery)			
4.28	Five (5) bottles ICP Multi-element Standard solution IV, 23 elements in diluted nitric acid, certified reference material, 1000 mg/L (staggered delivery)			

SECTION 1 – USER REQUIREMENTS				
NO.	**DESCRIPTION**	**Tick (✓)**		**STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE**
		Y	**N**	
4.29	Five (5) bottles Nitrate standard for IC, TraceCERT®, 1000mg/L, nitrate in water, 100ml (staggered delivery)			
4.30	Five (5) bottles Nitrite standard for IC, TraceCERT®, 1000mg/L, nitrite in water, 100ml (staggered delivery)			
4.31	Three (3) bottles of Au 100 mg/l in HCl 2%, ICP MS Standard; 100ml (staggered delivery)			
4.32	Five (5) bottles of NIST 1643f Trace Elements in Water, Std Reference Material, 250 ml (staggered delivery)			
4.33	Five (5) bottles Sulfuric acid concentrate, 0.1M H_2SO_4 in water (0.2N), 1L			
4.34	Five (5) bottles Concentrated Sulfuric acid, 99.999%, 100ml			
4.35	Ten (10) bottles Methanol, ≥99.9%, HPLC grade, 2.5L			
4.36	Five (5) bottles sodium hydroxide solution, 0.1M NaOH in water (0.1N), 1L			
4.37	Five (5) bottles Oxalic acid concentrate, 0.1M $(COOH)_2$ (0.2N), 1L			
4.38	Five (5) bottles Oxalic acid, purified grade, 99.999%, 100g			
4.39	Ten (10) bottles Acetone, ≥99.9%, HPLC grade, 1L			
4.40	Ten (10) sets of Carrez Clarificaton Kit for sample preparation in food analysis, 5-fold concentrate			
4.41	Five (5) packs Whatman® qualitative filter paper, Grade 2, circles, diameter 150mm, pack of 100			
4.42	Five (5) packs Whatman® glass microfiber grade GF/A filter discs 1.6 µm pore size, binder free, 0,26mm thick, 125mm diameter, pack of 100			
4.43	Five (5) packs Syringe Filter PES (Polyethersulfone) Membrane pore diameter 0.45 µm, luer lock, pack of 100			
4.44	Five (5) packs Syringe Filter PES (Polyethersulfone) Membrane pore diameter 0.22 µm, luer lock, pack of 100			
5.0	**OTHER MANDATORY ACCESSORIES**			
5.1	**ULTRAPURE WATER SYSTEM**			
5.1.1	One (1) lot of water purification system which can deliver ultrapure water directly from tap for use with IC system.			
5.1.2	Able to provide Type I ultrapure water with resistivity: 18.2 MΩ.cm @ 25°C			
5.1.3	Heavy duty deep bed sand filter and sediment filter installation to enhance in-depth filtration and increased dirt retention capacity.			

SECTION 1 – USER REQUIREMENTS				
NO.	**DESCRIPTION**	**Tick (✓)**		**STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE**
		Y	**N**	
5.1.4	Bypass valve(s) to be incorporated into the piping system in order to bypass all external filters (item 2.14.3) when required 			
5.2	**UNINTERRUPTED POWER SUPPLY**			
5.2.1	One (1) unit of uninterrupted power supply (UPS) with suitable power supply rating must also be provided and connected to the instrument system and workstation			
6.0	**SITE PREPARATION**			
6.1	It is **MANDATORY** for the tenderer to do site visit prior to tender submission to discuss site requirements. Non-attendance will be considered as non-compliance.			
6.2	Tenderer shall ensure that the site preparation for the placement of the system taking into the consideration on the safety of the end user during the operation of the instrument.			
6.3	All works involving workbench modification and fabrication, water supply, piping, drainage, wall and floor hacking, additional electrical supply including wiring, outlets and isolators and any others, deemed necessary to ensure safe and successful installation and operation of the complete system should be included.			
6.4	The site preparation details should be listed out in the quotation/document submitted.			
7.0	**POWER SUPPLY**			
7.1	All electrical and electronic components in the system must be able to utilise mains power supply of 220 – 240V AC, 50 – 60 Hz. Otherwise, vendor to include additional items or work required to ensure successful operation.			
8.0	**TRAINING**			
8.1	Training shall be included as follows:			

SECTION 1 – USER REQUIREMENTS				
NO.	**DESCRIPTION**	**Tick (✓)**		**STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE**
		Y	**N**	
8.2	On-site training for ALL staff members expected to handle the machine. Please ensure that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory.			
8.3	Certificate of competence is to be issued to all trainees after completion of training.			
8.4	The successful tenderer needs to ensure the key users are updated on the current or relevant information related to the system used. They should provide **ONE** (1) off-site benchwork training for **TWO** (2) key users at a laboratory setting deemed suitable by users. All expenses for attending the benchwork training shall be borne by the vendor; full registration, insurance, air ticket, daily allowance, accommodation, transport to and from the airport and place of training.			
9.0	**WARRANTY**			
9.1	A minimum of one (1) year warranty for manufacturer's defect on the hardware, software and all cost of repairs and/or replacements should be included			
9.2	After-sales services must be provided for the product after one (1) year			
9.3	One-off preventive maintenance to be carried out just before or soon after the one-year warranty period. Scope of work to follow manufacturer's manual / recommendation specific for the equipment offered, which include: ▪ Supply, delivery and installation of preventive maintenance kits and/or consumables ▪ Software update (to obtain prior authorization from user and BME) ▪ Inspection ▪ cleaning ▪ alignment ▪ calibration ▪ any other related preventive maintenance works required			
10.0	**DELIVERY**			
10.1	Items offered **MUST be delivered within** _____ from date of approval. (Vendor to indicate the delivery period.)			
2	**WARRANTY**			
1	Tenderer to include warranty period of **at least one (1) year**			
2	Tenderers to **acknowledge** the Warranty Undertaking Form in Section 4 stating the terms of warranty provided for the equipment in the tender for the period of one year.			
3	**END USER TRAINING**			

SECTION 1 – USER REQUIREMENTS				
NO.	**DESCRIPTION**	**Tick (✓)**		**STATE OR SPECIFY OR REMARKS OR BROCHURE PAGE**
		Y	**N**	
1	Conduct **user training** to the all-end users by an application specialist or competent local engineer including but not limited to: ▪ Basic user operation, user troubleshooting and user maintenance ▪ Provide Operating manual (Hardcopy and/or Softcopy)			
2	Tenderer must **prepare a training attendance or proof of training done to end user during commissioning**			

SECTION 2 – PRICE PROPOSAL	
UNIT PRICE: **BND$**	**TOTAL PRICE:** **BND$**

SECTION 3 - PROCUMENT AND TECHNICAL SPECIFICATION									
BRAND:				**MODEL:**					
COUNTRY OF ORIGIN:				**UNIT PRICE (B$):**					
WARRANTY PERIOD:				**TOTAL PRICE (B$):**					
YEAR INTRODUCED TO MARKET:				**LAST COUNTRY SOLD TO:**					
PRICE VALIDITY: [AT LEAST ONE (1) YEAR PRICE VALIDTY]				**DELIVERY TIME:**					
AUTHORIZED DISTRIBUTOR: (AUTHORIZED DISTRIBUTOR LETTER ATTACHED)		APPOINTED BRUNEI DISTRIBUTOR							
		PROCURE FROM OVERSEA AUTHORIZED DISTRIBUTOR		COMPANY NAME:					
				COMPANY ORIGIN:					
DETAILED BROCHURE INCLUDED		**YES**		**NO**	**☑ or specify where appropriate**				
USER AND SERVICE MANUALS:		**YES**		**NO**	Tenderers to acknowledge that they must provide at least **TWO** sets of **USER AND SERVICE** manuals when applying commissioning form. One Set for End User, One Set for BME. (Please provide hardcopy or softcopy)				
MAINS POWER SUPPLY:		**220V-240V**		OTHERS:					
		50-60HZ		OTHERS:					
BATTERY		**RECHARGEABLE**				**SINGLE-USE**		**REPLACEABLE**	
		OTHERS:							
	TYPE OF BATTERY:								
	RATING:								
POWER ADAPTER/CHARGER OUTPUT RATING:									
EQUIPMENT AMBIENT OPERATING TEMPERATURE RANGE:									
NUMBER OF TECHNICAL SUPPORT (ENGINEER/TECHNICIAN)	**LOCAL**								
Please provide training or certification for locals who is trained/certified	**OVERSEA (SPECIFY LOCATION)**								
DIMENSIONS AND WEIGHT OF MAIN UNIT:									
EQUIPMENT WHOLE LIFE TIME SUPPORT:	**The supplier shall ensure that spare parts for the equipment are available for a minimum of 8 years after installation, with the support period extending beyond the expected lifecycle of the equipment.** **No of years: _____ (Please specify)**								

SECTION 4 – WARRANTY UNDERTAKING FORM

Tenderer, on behalf of the manufacturer, acknowledged and agrees that when equipment is under the warranty period, must cover the scope of normal warranty below at no additional cost:

NORMAL WARRANTY

- Warrants the supplied laboratory equipment and its accessories to be in good condition, in working order and free from defects to the extend such equipment do not comply with specifications, under normal use for the warranty period. The scope of warranty covers to its maximum extent permitted by applicable law.
- During warranty, tenderer must rectify issues arise from any mechanical, technical or software faulty as soon as it is reported.
- **Exchange warranty**; Providing replacement units or OEM parts:
    A. Warranty against defects – Manufacturing defects or Equipment malfunction resulted from mechanical, electrical or software failure during Commissioning or within the first _____ months of use
    B. Faulty workmanship or unsatisfactory condition during delivery or commissioning
    C. If a unit or accessory is deemed used item or refurbished item (not a new unit) by the user and BME Unit.
- _____**time Planned Preventive Maintenance (PPM) PER YEAR** according to Manufacturer's Preventive Maintenance Guideline.

EXCLUSION FROM WARRANTY

MOH understand that the following circumstances are not covered in the warranty and Tenderer may quote for repair and subject to MOH approval:

- Unauthorized modifications - an alteration or repair by anyone other than the Manufacturer or Authorized agent during warranty period.
- Accidental damage or problems caused by negligence or mishandling, subject to appropriate justification by both parties.
- Vandalism and Natural disasters
- Normal wear and tear

ANY OTHER EXCLUSION

Tenderer may propose below to include items or terms which is not listed in the exclusion list above for MOH consideration.

TENDERER ACKNOWLEDGMENT

COMPANY CHOP AND SIGNATURE

SITE VISIT FORM

TENDER DETAILS		
TENDER REFERENCE	**:**	**KK/173/2026/HTD**
TENDER TITLE	**:**	**SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF ONE (1) UNIT OF ION CHROMATOGRAPHY SYSTEM FOR FOOD CHEMISTRY LABORATORY, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH**

COMPANY DETAILS			
COMPANY NAME	**:**		**COMPANY STAMP AND SIGNATURE**
FOCAL PERSON	**:**	(Name, Designation)	
CONTACT NO:	**:**		

- I hereby on behalf of My Company has made a Site Visit to the following site/location on the date stated below and understand the work requirement(s) and all specification stated in this tender document.
- I (My Company) also agree not to make any additional claim to MOH should any accident(s) or damage(s) occur during the implementation period.

FOR OFFICIAL USE ONLY:				
SITE/LOCATION	**:**		**VERIFIED BY:**	(Name, Designation, Signature)
DATE OF SITE VISIT	**:**			

Note:

The Contractor **must visit the site before quoting any price** for the work stated in this Tender and shall satisfy himself as to the nature of work and site condition. The Contractor must fill in this form and obtain signature from the Biomedical Engineer (BME) as verification for having visited the Site.

Failing to do so will lead to **disqualification** from this Tender.

NO.	TERMS AND CONDITIONS	VENDOR'S OFFER (PLEASE STATE)
1	Tenderer must be registered with the Ministry of Health.	
2	**TENDER FORM should be filled** completely including the **USER REQUIREMENT FORM** (if available). Submission of incomplete form **MAY** cause **DISQUALIFICATION OF TENDER.**	
3	Tenderers are **required to submit individual proposal booklets for each item listed**. Each item shall be treated as a standalone submission	
4	Each tenderer is allowed to quote **ONE BRAND WITH ONE PRICE ONLY** for each item. Submission of more than one brand and price will cause **DISQUALIFICATION OF TENDER.**	
5	All consumables supplied throughout this tender shall have a minimum expiry date of **twelve (12) months / on delivery** (if applicable). Should the consumables be urgently needed, provision of consumables with expiry date of less than twelve (12) months should be first agreed by the User before delivery is made (if applicable).	
6	Brochures / catalogues should be submitted / attached with tender document.	
7	Any room renovation which may be required, it is mandatory to conduct site visit (if applicable)	
8	**DELIVERY PERIOD:** (Please state)	
9	**PRICE VALIDITY:** The quotation shall remain valid for **12 MONTHS** from the final date for the submission of the quotation and no supplier may withdraw his/her quotation within that period. The Government reserves the right to extend this period if deemed necessary provided that such extension to the quotation validity period shall have written consent of the supplier(s).	
10	**The equipment supplied must be newly manufactured, unused, and in its original, sealed packaging. The equipment must not be previously owned, refurbished, or reconditioned in any form.** During **delivery**, the vendor is required to **provide proof of manufacture date confirming the equipment is new.**	