



**CSIR-INDIAN INSTITUTE OF CHEMICAL BIOLOGY**  
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)  
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**PURCHASE ORDER**

M/s Thermo Fisher Scientific India Private Ltd, C/o Toll Global Logistics, Mayashree Logistics Centre, Survey No. 38/4, 40/1, 40/2P, 45/A Kuksa Opp. NH-3 Maharashtra, India Email: <a href="mailto:vivek.sharma@thermofisher.com">vivek.sharma@thermofisher.com</a> <a href="mailto:pinaki.sardar@thermofisher.com">pinaki.sardar@thermofisher.com</a>	PO No.	IICB/PUR/2025-26/599/648/159RT(24-25)
	Date	24.12.25
	Subject	Procurement of LC-MS/MS Triple Quadrupole Spectroscope
	Your Ref.	Q/KOL/5/IICB/LCMSMS/25, dated 21.04.25 and your letter no. L/KOL/5/IICB/LCMSMS/25, dated 18.07.25, Lt-2/KOL/5/IICB/LCMSMS/25, dated 30.08.25, Q/KOL/5/IICB/LCMSMS/25 dated 15.10.25, email dated 22.07.25, 03.09.25, 16.10.25 & 07.12.25, 12.12.25, 19.12.25 & 23.12.25

Sub: Award of contract for Supply, Installation Testing and Commissioning of LC-MS/MS Triple Quadrupole Spectroscope

Ref:

1. Your Quotation No. Q/KOL/5/IICB/LCMSMS/25, dated 21.04.25
2. Your email dated 22.07.25, 03.09.25, 16.10.25 & 07.12.25, 12.12.25, 19.12.25 & 23.12.25
3. Your letter No. L/KOL/5/IICB/LCMSMS/25, dated 18.07.25, Lt-2/KOL/5/IICB/LCMSMS/25, dated 30.08.25, Q/KOL/5/IICB/LCMSMS/25 dated 15.10.25

Sir/Madam,

I am directed to inform you that after evaluating the bid documents submitted by you as referred above, the Director, CSIR-Indian Institute of Chemical Biology is pleased to inform you that you have been selected as the successful bidder for the supply, installation and commissioning of LC-MS/MS Triple Quadrupole Spectroscope. Accordingly, you are requested to arrange for Supply, Installation & commissioning of the offered item/items as detailed below:

Sr. No.	Part Number	Description	Qty.	Total Price in Rupees
1	TSQ03-10002	<p><b>Thermo Scientific™ TSQ Altis Plus™ Highly Sensitive Triple-Stage Quadrupole Mass Spectrometer LC-MS/MS System with Oil Free Pump</b></p> <p>The Thermo Scientific™ TSQ Altis™ Plus mass spectrometer redefines ultimate performance and flexibility to address demanding quantitation workflows with ease. With superior acquisition speeds, enhanced sensitivity, and stability, the TSQ Altis Plus mass spectrometer delivers unprecedented accuracy and precision for low-level compounds in complex matrices. Advanced control software, database integration, and templates streamline rigorous method development. Combined with powerful Thermo Scientific™ chromatographic systems, optional differential ion mobility, novel ionization sources, and leading fit-for-purpose data processing software, a TSQ Altis Plus solution provides the highest performance for your most challenging quantitative applications.</p> <p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>❖ Ultimate quantitative performance is achieved through enhanced Thermo Scientific™ Active Ion Management (AIM+) technology.</li> <li>❖ QR5 Plus segmented quadrupoles with hyperbolic surfaces deliver attoqram sensitivity consistently and reproducibly.</li> <li>❖ Industry-leading selected-reaction monitoring (SRM) speeds enable quantitation of more compounds in less time.</li> <li>❖ Provides robustness, reliability, and consistency that are unprecedented in a high-end triple quadrupole mass spectrometer.</li> <li>❖ Gives industry-leading polarity switching times that include signal stabilization.</li> <li>❖ Provides automated compound optimization and intuitive instrument interface.</li> <li>❖ Access to the comprehensive Thermo Scientific™ mzCloud™ compound database</li> </ul> <p><b>Hardware features</b></p> <p>Active Ion Management AIM+ technology maximizes ion transmission, from inception to detection, with novel hardware designs to precisely manage electrical fields and remove sources of noise to achieve unprecedented levels of quantitative performance.</p> <p><b>Thermo Scientific™ OptaMax™ NG API source</b></p> <ul style="list-style-type: none"> <li>❖ Automatic connection of all gases and voltages on installation simplifies operation and improves reliability.</li> <li>❖ Automatic source recognition simplifies use and data logging.</li> <li>❖ Sweep gas reduces chemical noise.</li> </ul> <p>Enhanced exhaust port efficiently removes solvent vapor, improving uptime and reducing chemical noise.</p> <ul style="list-style-type: none"> <li>❖ Flexible X, Y, and Z positioning for all ionization probes maximizes performance.</li> </ul>	1	2,22,01,726.45

आर. रे / R. RAY

भंडार एवं क्रय नियंत्रक

Controller of Stores & Purchase

सीएसआईआर, भारतीय रासायनिक विज्ञान संस्थान

(विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार)

CSIR-Indian Institute of Chemical Biology

(Ministry of Science and Technology, Govt. of India)

4, Raja S. C. Mullick Road, Jadavpur, Kolkata - 700 032, भारत

4, Raja S. C. Mullick Road, Jadavpur, Kolkata - 700 032, India



	<ul style="list-style-type: none"> <li>Optimal 60-degree spray angle</li> <li>Integrated APCI functionality with interchangeable HESI and APCI ionization probes</li> <li>APCI compatibility</li> <li>Dedicated mass calibration probe</li> </ul> <p><b>High-capacity transfer tube</b> The optimized high-capacity transfer tube (HCTT) transfers more ions into the vacuum system for improved sensitivity while maintaining robustness and ease of use.</p> <p><b>Ion optics</b> <b>Electrodynamic ion funnel RF lens</b> The electrodynamic ion funnel (EDIF) efficiently captures ions as they leave the transfer tube. Its broad transmission curve reduces ion losses, increasing sensitivity. By design, the EDIF gently moves ions from atmosphere to vacuum, reducing in-source fragmentation.</p> <p><b>Ion beam guide and neutral blocker</b> The ion beam guide, with its neutral blocker, stops neutrals and high-velocity clusters, keeping the ion path cleaner, reducing noise, increasing sensitivity and robustness.</p> <p><b>Segmented hyperbolic-surface quadrupoles mass filters (Q1 and Q3)</b> Segmented hyperbolic-surface quadrupole mass filters with 5.25 mm field radius deliver industry leading ion transmission across the mass range at resolutions up to 0.2 Da FWHM for the ultimate in sensitivity at all masses and resolutions.</p> <p><b>Active Reaction Collision cell II (ARC II)</b> The 90-degree, high-pressure argon-filled collision cell produces efficient fragmentation for high sensitivity, while guiding ions away from neutral reaction products to reduce noise. The new design improves stability and transmission of low-mass product ions as well as product ions generated from large m/z differences between precursor and product ions, critical for key applications. The axial DC field speeds ion transits through the collision cell yielding up to 600 SRMs/sec with zero cross-talk, providing excellent sensitivity and speed.</p> <p><b>Detector</b></p> <ul style="list-style-type: none"> <li>Discrete-dynode detector with increased surface area greatly extends the detector lifetime.</li> <li>Dual-mode function increases sensitivity by operating in pulse counting mode when ion flux is low and analog mode when ion flux is high.</li> <li>Greater than six orders of dynamic range provide high confidence quantitation.</li> </ul> <p><b>Vacuum system</b></p> <ul style="list-style-type: none"> <li>Four-stage differentially pumped vacuum manifold</li> <li>Advanced triple-inlet turbomolecular pump integrated with the vacuum manifold.</li> <li>Single-stage, oil-sealed Rotary Vane vacuum-pump configuration</li> <li>Environmentally friendly dry-pump option available</li> </ul> <p><b>Integrated divert valve and syringe pump</b> Fully automated data system control of the divert valve and syringe pump with plug-and-play support. Automated control of the divert valve enables switching of the solvent front, gradient end point, or any portion of the HPLC run to waste.</p> <p><b>Optional ion sources</b></p> <ul style="list-style-type: none"> <li>Thermo Scientific™ EASY-Spray™ NG ion source is designed for maximum nano spray performance with no need for adjustments.</li> </ul>	
<p>आर. रे. / R. RAY भारत रत्न के. व. विज्ञान Controller of Stores &amp; Purchase (भारत रत्न के. व. विज्ञान, भारत सरकार) CSIR-Indian Institute of Chemical Biology (Ministry of Science and Technology, Govt. of India) 4, Raja Ram Mohan Roy Sarani, Kolkata - 700 032, India 1, Raja S. C. Mukherjee Road, Jadavpur, Kolkata - 700 032, India</p> <p>25/12/23</p>	<ul style="list-style-type: none"> <li>Thermo Scientific™ Nano spray Flex™ NG ion source is designed for ultimate nano spray performance with complete flexibility of column selection.</li> <li>Thermo Scientific™ VeriSpray™ PaperSpray™ ion source enables seamless integration of paper spray technology for direct MS-based ionization.</li> <li>Thermo Scientific™ OptaMax™ Duet NG API ion source enables.</li> <li>HESI and APCI functionality without manual changes in the hardware configuration</li> <li>Thermo Scientific™ FAIMS Pro Duo interface improves signal to-noise ratio by reducing isobaric interferences.</li> </ul> <p><b>Software features</b> <b>Data System</b></p> <ul style="list-style-type: none"> <li>High-performance PC with Intel® microprocessor</li> <li>High-resolution LCD color monitor</li> <li>Microsoft® Windows® 10 operating system (64-bit)</li> </ul> <p><b>Standard MS software</b></p> <ul style="list-style-type: none"> <li>Thermo Scientific™ Xcalibur™ processing and instrument control software</li> <li>Thermo Scientific™ FreeStyle™ application for data processing</li> <li>Tune editor for system calibration, diagnostics, and manual data acquisition</li> <li>Fully automated loop injection or infusion-based compound optimization directly incorporated into the instrument method.</li> <li>Method editor with comprehensive application-specific template library and intuitive user interface to facilitate method development.</li> <li>Thermo Scientific™ mzCloud™ database access allowing importation of compound name, SRM transitions, and collision Energies.</li> <li>Dwell time weighting factor for optimizing efficient SRM acquisition.</li> <li>Visual display of relationship between chromatographic peak width and data points per peak to determine optimum quantitative performance.</li> <li>FAIMS Compensation Voltage (CV) optimization routine performed on a chromatographic time scale.</li> <li>Integration with multiple vendors' LC systems and autosampler configurations through Xcalibur software</li> </ul> <p><b>Scan functions</b></p> <ul style="list-style-type: none"> <li>Highly sensitive full-scan MS</li> <li>Selected-ion monitoring (SIM)</li> <li>SRM with up to 30,000 SRMs definable and up to 600 SRMs/sec and timed SRMs</li> <li>High-resolution (0.2 Da FWHM) selected-reaction monitoring (H-SRM)</li> <li>Product ion scan</li> <li>Precursor ion scan</li> <li>Neutral-loss scan</li> <li>Reverse energy ramp MS/MS spectra (RER) gives information rich MS/MS spectra for compound identification.</li> <li>Polarity switching capabilities.</li> <li>Quantitation-enhanced data-dependent (QED) MS/MS</li> <li>Mixed Mode Scan Function</li> <li>Automated on-the-fly adjustment of retention time windows to accommodate chromatographic fluctuation</li> </ul> <p><b>Optional application-specific software</b></p>	



		<ul style="list-style-type: none"> <li>Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS) software unifies workflows for routine quantitative MS analysis.</li> <li>Thermo Scientific™ TraceFinder™ software simplifies method development and routine analysis in food safety, environmental, clinical research, and forensic toxicology laboratories.</li> <li>Supports the use of Skyline software (MacCoss Lab, University of Washington)</li> <li>mzCloud database integration allows access to over 19,000 compounds</li> </ul> <b>Performance specifications</b> <b>Sensitivity</b> <b>Positive electrospray (HESI)</b> A 5µL injection of a 200 fg/µL reserpine solution will produce a minimum signal-to-noise ratio of 1,500,000:1 for the transition of the protonated molecule at m/z 609.3 to the fragment ion at m/z 195.1 when operated in SRM mode with Q1 and Q3 resolution set to 0.2 and 0.7 Da FWHM respectively. <b>Atmospheric pressure chemical ionization (APCI)</b> A 5µL loop injection of a 200 fg/µL reserpine solution will produce a minimum signal-to-noise ratio of 100,000:1 for the transition of the protonated molecular ion at m/z 609.3 to the fragment ion at m/z 195.1 when operated in SRM mode with Q1 and Q3 resolution both set to 0.7 Da FWHM. <b>Negative electrospray (nHESI)</b> A 5µL loop injection of a 200 fg/µL chloramphenicol solution will produce a minimum signal-to-noise ratio of 1,500,000:1 for the transition of the deprotonated molecular ion at m/z 321.0 to the fragment ion at m/z 152.0 when operated in SRM mode with Q1 and Q3 resolution set to 0.7 Da FWHM. <b>Mass range</b> m/z 2–2010 <b>Resolution</b> Q1 and Q3 adjustable to 0.2 Da peak width (FWHM) across the entire mass range <b>Scan rate</b> <ul style="list-style-type: none"> <li>15,000 amu/second at a resolution of 2 Da FWHM</li> <li>Up to 600 SRMs/sec (for resolutions from 0.2 through 2.0 FWHM)</li> <li>Polarity Switching: 5 msec electronic switching time that includes signal stabilization.</li> </ul> <b>Mass stability</b> Mass assignment will be within ±0.1 Da over a 24-hour period. The laboratory room temperature must be maintained between 18–27°C (65–81°F). The room temperature may not change by more than 5°C (9°F) during this period. <b>Installation requirements</b> <b>Power</b> <ul style="list-style-type: none"> <li>Three 230 Vac ±10%, 50/60 Hz at 16 A minimum</li> <li>Four 120 Vac ±6–10%, 50/60 Hz at 20 A or four 230 Vac ±10%, 50/60 Hz at 13 A</li> </ul> <b>Gas</b> <ul style="list-style-type: none"> <li>Collision gas: 99.995% pure Argon (99.995% Nitrogen also supported)</li> <li>Collision gas supply pressure: 135 ±70 kPa (20 ±10 psig)</li> <li>Sheath/aux/sweep gas: 99% pure Nitrogen</li> <li>Sheath/aux/sweep gas supply pressure: 690 ±140 kPa (100 ±20 psig)</li> </ul>		
		<ul style="list-style-type: none"> <li>Maximum gas consumption: ~20 L/min</li> <li>Maximum gas consumption with the FAIMS Pro Duo interface installed: ~55 L/min</li> </ul> <b>Environment</b> <ul style="list-style-type: none"> <li>Functional temperature range: 15–27 °C (59–81 °F)</li> <li>Optimal temperature range: 18–21 °C (65–70 °F)</li> <li>Heat output: 1,550 W (5,400 Btu/h)</li> <li>Total system heat output with oil pump: 4550 W (15,525 Btu/h)</li> <li>Total system heat output with dry pump: 3400 W (11,450 Btu/h)</li> <li>Particulate matter: &lt;3,500,000 particles per cubic meter of air (&lt;100,000 particles of &gt;5µm diameter per cubic foot of air)</li> <li>Relative humidity: 20% to 80%, without condensation</li> <li>Floors must be free of vibration.</li> </ul> <b>Dimensions</b> <b>Size</b> <ul style="list-style-type: none"> <li>TSQ Altis Plus MS: 680 x 760 x 840 mm (h, w, d – 27 x 30 x 33 in)</li> <li>2 OerlikonR SV 65 fore pumps: 270 x 320 x 489 mm (h, w, d – 10 x 13 x 19 in)</li> <li>Edwards™ nXL110i dry fore pump: 344 x 308 x 654 mm (h, w, d – 13.5 x 12.1 x 25.7 in)</li> </ul> <b>Weight</b> <ul style="list-style-type: none"> <li>TSQ Altis Plus MS: 125 kg (275 lb)</li> <li>2 OerlikonR SV 65 fore pumps: 104 kg (230 lb)</li> <li>Edwards™ nXL110i dry fore pump: 75 kg (165 lb)</li> </ul>		
2	B51001912	Pre-installation kit	1	Included
3	HAZMAT-01-00140	UHPLCMS Installation Kit	1	Included
4	25002-052130	Thermo Fisher Hypersil Gold1.9UMX 50X2.1 mm column	1	Included
5	80100-62029	Divert Valve Kit	1	Included
6	80100-60258	Bracket Holder Assy	1	Included
7	OPTON-32101	APCI Kit w/ APCI Sprayer, OptaMax	1	Included
8	VF-P10-A-01	Thermo Scientific™ Vanquish™ Binary Pump F <ul style="list-style-type: none"> <li>Operating Principle: Serial dual-piston pump</li> <li>Flow Range (settable): 0.001–8 mL/min, in 1µL/min increments</li> <li>Pressure Range: 2–103 MPa (20–1034 bar, 290–15,000 psi) With a flow rate above 5 mL/min, the pressure range decreases linearly down to 80 MPa (800 bar, 11,600 psi)</li> <li>Compressibility Compensation: Fully automated, independent of mobile phase composition</li> <li>Flow Accuracy: ±0.1%</li> <li>Flow Precision: &lt;0.05% RSD or &lt;0.01 min SD, whichever is greater</li> <li>Pulsation: Typically, &lt; 1.0% or &lt; 0.2 MPa, whichever is greater</li> <li>Gradient Formation: High-pressure gradient proportioning</li> <li>Proportioning Accuracy: ±0.2% of full-scale</li> <li>Proportioning Precision: &lt; 0.15% SD</li> <li>Number of Solvent Lines: 2 out of 6</li> <li>Mixture Volume: 200µL (50µL proprietary capillary mixer and 150µL static mixer, default configuration)</li> <li>Dwell Volume (contribution of the pump to the system gradient delay volume): 200µL (default configuration)</li> <li>Solvent Degassing: Built-in, 2 channels</li> <li>Wetted Parts: MP35N, titanium, ceramics, sapphire, PEEK, UHMW PE, fluoropolymers</li> <li>Biocompatible: Yes; pH range 2–12, chloride concentration up to 1mo/L</li> </ul>	1	Included

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24/12/25  
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		<ul style="list-style-type: none"> <li>Safety Features: Leak detection and safe leak handling, excess pressure monitoring</li> <li>PC Connection: USB 2.0 3-port-HUB to connect further Vanquish modules</li> <li>I/O Interfaces: 2x 6 pin Mini-DIN connectors each having functionality: 1 input, 1 relay out, 1 bidirectional input/output</li> <li>GLP: Predictive Performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the pump. All system parameters logged in the Thermo Scientific™ Chromeleon™ Chromatography Data System Audit Trail.</li> <li>Environmental Conditions: 5–35°C; 20–80% RH (non-condensing) max. 2000 m above sea-level, Storage: -20–45°C max. 60% RH (non-condensing)</li> <li>Power Requirement: 100–240 V AC, 50/60 Hz, max. 245 W/255 VA</li> <li>Dimensions: 192mm x 420mm x 620mm (7.6 in. x 16.5 in. x 24.4 in.)</li> <li>Weight: 20 kg (44.1 lbs)</li> </ul>		
9	VF-S01-A-02	<b>SYSTEM BASE VANQUISH HORIZON / FLEX</b>	1	Included
10	VF-A10-A-02	<b>Thermo Scientific™ Vanquish™ – Split Sampler FT</b> <ul style="list-style-type: none"> <li>Operating principle: Split loop injection</li> <li>Pressure range: 2–103 MPa (20–1034 bar, 290–15,000 psi)</li> <li>Injection volume range: Default: 0.01–25µL, min. step = 0.01µL; Optional: 0.01–100µL</li> <li>Injection volume accuracy: Typically, ±0.5% for 10µL water</li> <li>Injection volume precision: &lt;0.25% area RSD for 1µL (caffeine in water), Typically &lt;0.5% area RSD for 0.5µL (caffeine in water)</li> <li>Injection linearity: r &gt; 0.99999 (caffeine in water)</li> <li>Injection cycle time: Down to 8 s depending on separation conditions</li> <li>Min. sample required: 2µL at 1µL injection volume</li> <li>Carry over (UV): &lt;0.002% with caffeine (typically: &lt;0.0004%)</li> <li>Needle wash: 1 solvent per injection unit, dip rinse and continuous rinse</li> <li>Sample compartment temperature range: 4–40°C (≥23 K below ambient at &lt;80% RH)</li> <li>Sample temperature accuracy: -2 °C/+4 °C</li> <li>Sample temperature stability: ±1°C</li> <li>Dwell volume (contribution of the autosampler to the system gradient delay volume): 110µL with 25µL sample loop (default configuration); 83µL with sample loop of 10µL</li> <li>Method Transfer capability: Sampler freely tunable contribution to system gradient delay volume between inject volume to 100 µL</li> <li>Sample capacity: Any four of the following (SBS footprint) <ul style="list-style-type: none"> <li>54 x 12 mm OD vials (≤1.5 mL)</li> <li>96 x 6, 7 and 8mm OD vials (≤1.2 mL)</li> <li>16 x 15 mm OD vials (≤4 mL)</li> <li>9 x 22.5 mm OD vials (≤10 mL)</li> </ul> </li> <li>Well plates (96 and 384, deep and shallow) + capacity of 12 x 22.5 mm OD vials (≤10 mL) in the carousel</li> <li>Automation features barcode reading; Empty segment detection; Rack/well plate verification; Inventory management</li> <li>GLP: Predictive performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the sampler. All system parameters logged in the Thermo Scientific™ Chromeleon™ Chromatography Data System (CDS) audit trail.</li> </ul>	1	Included
		<ul style="list-style-type: none"> <li>PC connection: USB 2.0; 3-port-HUB to connect further Vanquish modules</li> <li>I/O interface: 2 x 6 pin Mini-DIN connectors each having functionality: 1 input, 1 relay out</li> <li>Safety features: Leak detection and safe leak handling</li> <li>Wetted parts: Sample flow path: Titanium, Ceramics, PEEK, MP35N, DLC, Eluent flow path: MP35N, Titanium, Sapphire, PEEK, PTFE, Ceramics, DLC, Wash liquid flow path: Silicone, PP, FPM, PEEK, PA</li> <li>Biocompatible: Yes; pH range 2–12, chloride concentration up to 1 mol/L</li> <li>Environmental conditions: Operation: 5–35°C, 20–80% RH (non-condensing), max. 2000 m above sea-level Storage: -20–45°C, max. 60% RH (non-condensing)</li> <li>Power requirements: 100 – 240 V AC, ± 10%; 50/60 Hz; max. 525 W / 550 VA</li> <li>Dimensions (h x w x d): 290 x 420 x 620 mm (11.4 x 16.5 x 24.4 in.)</li> <li>Weight: 24 kg (52.9 lbs.)</li> </ul>		
12	VC-C10-A-03	<b>Thermo Scientific™ Vanquish™ – Column Compartment C</b> <ul style="list-style-type: none"> <li>Operating principle: Still air and forced air</li> <li>Temperature range: 5–85°C in 0.1°C increments (max 18°C below ambient)</li> <li>Temperature stability: ±0.05 °C</li> <li>Temperature accuracy: ±0.5 °C (up to 80 °C)</li> <li>Heating performance: from 20°C to 50°C (±1°C) in &lt;15 min, from 25°C to 40°C (±1°C) in 5 min; Cooling performance from 50 to 20°C (±1°C) in &lt;15 min</li> <li>Capacity: 2 column slots</li> <li>Column slot dimension: 387 mm x 25 mm</li> <li>Temperature zones: 1 per device (up to 3 zones in stacked configuration)</li> <li>Column capacity: 2 x max. 300 mm w/ pre-heater or guard column, max. column i.d.: 10 mm</li> <li>Column ID: Up to 4 column ID tags</li> <li>Valves: Up to 2 valves: 2-position/6-port, 6-position/7-port</li> <li>Pre-heater: Yes, active (optional) and passive</li> <li>Post-column cooler: No</li> <li>Pressure range: 2 - 70 MPa (20–700 bar, 290 - 10100 psi)</li> <li>Wetted parts: Titanium, Ceramics, SST</li> <li>Biocompatible: No; pH range 1–13, chloride concentration up to 0.1mol/L</li> <li>Safety features: 2 doors, fluid leak sensors, fast-cool button</li> <li>PC connection: USB 2.0</li> <li>GLP: GLP Predictive Performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the pump. All system parameters logged in the Chromeleon CDS Data System Audit Trail.</li> <li>Environmental conditions: Operation: 5–35°C, 20–80% RH (non-condensing), max. 2000 m above sea-level Storage: -20–45°C, max. 60% RH (non-condensing)</li> <li>Power requirements: 100–240 V AC, 50/60 Hz, max. 310 W / 330 VA</li> <li>Dimensions (h x w x d): 700 mm x 111 mm x 422 mm (27.6 in. x 4.4 in. x 16.6 in.)</li> <li>Weight: 14 kg (30.9 lbs)</li> </ul>	1	Included
13	6732.0110	<b>ACTIVE PRE-HEATER, 0.1X380MM, VH-C</b>	1	Included

आर. रे. R. RAY  
 मेडार एवं क्रय नियंत्रक  
 Controller of Stores & Purchase  
 (विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार)  
 CSIR-Indian Institute of Chemical Biology  
 (Ministry of Science and Technology, Govt. of India)  
 4 राधा कृष्ण से मैट्रिक रोड, जगदलपुर, कोलकाता-700 032, भारत  
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14	6732.0520	POST COOLER 1uL, 0.1X590MM, VH-C10	1	Included
15	6287.0540	USB 2.0 HI-SPEED ISOLATOR, BLACK	1	Included
16	6036.2200	STRONG SOLVENT LOOP	1	Included
17	6720.0405	MS Connection Kit Vanquish	1	Included
18	6000.1090	POWER CORD INDIA-VERSION /SA SW, 1.8M	8	Included
19	6044.3870	Set inline filter, 35 µL, for Vanquish Flex pumps	1	Included
20	VC-D11-A-01	Thermo Scientific™ Vanquish™ – Diode Array Detector CG <ul style="list-style-type: none"> <li>Optical design: Single-beam, reverse-optics design with concave holographic grating, achromatic optics, 1024 element photodiode array</li> <li>Light source: Deuterium lamp, Tungsten lamp (optional)</li> <li>Wavelength range: 190–800 nm (with deuterium and tungsten lamp)</li> <li>Spectral bandwidth: Pixel resolution: 0.6 nm (average)</li> <li>Slit width: Fixed: Wide</li> <li>Wavelength accuracy: ±1 nm</li> <li>Wavelength repeatability: ±0.1 nm</li> <li>Wavelength calibration: Internal calibration with D-alpha line of the deuterium lamp</li> <li>Wavelength validation: Internal validation with holmium oxide filter</li> <li>Number of signal channels: Up to 8 + 3D field</li> <li>Data collection rate: Up to 125 Hz (including 3D acquisition)</li> <li>Noise: &lt;±6 µAU at 254 nm</li> <li>Drift: &lt;1 mAU/h at 254 nm</li> <li>Linearity: &lt;5% at 2.2 AU (typically &lt;5% at 2.7 AU)</li> <li>Flow cells: 5 options, see ordering information for details</li> <li>Flow cell pressure limit: Standard biocompatible flow cell: 5 MPa (50 bar, 720 psi), Standard, semi-analytical, semi-micro and semi-micro biocompatible flow cell: 12 MPa (120 bar, 1740 psi)</li> <li>Wetted parts: Standard, semi-analytical and semi-micro flow cell: SST, fused silica, PTFE, PEEK, titanium; Standard biocompatible flow cell: Fused silica, PEEK; Semi-micro biocompatible flow cell: MP35N, titanium, fused silica, PTFE, PEEK</li> <li>Safety features: Power-up diagnostics of optics, cooling fans, motors and electronics. Leak detection and safe leak handling</li> <li>PC connection: USB 2.0; 3-port HUB to connect additional Vanquish modules</li> <li>GLP: Predictive performance functions for scheduling maintenance procedures based on the actual operating and usage conditions of the detector: lamp age and ignitions (UV lamp and VIS lamp), lamp intensity degradation (UV lamp and VIS lamp), leak detection, service monitoring period. All system parameters logged in the Chromeleon CDS Audit Trail</li> <li>Environmental conditions: Operation: 5–35°C, 20–80% RH (non-condensing), max. 2000 m above sea-level Storage: -20–45°C, max. 60% RH (non-condensing)</li> <li>Power requirements: 100–240 VAC, 50/60 Hz, max. 245 W/255 VA</li> <li>Dimensions (h x w x d): 159 mm x 420 mm x 620 mm (6.3 in. x 16.5 in. x 24.4 in.); Weight: 16 kg (35 lbs)</li> </ul>	1	Included
21	6083.0510	Standard flow cell (13 µL, 10 mm, 12 MPa, SST)	1	Included
22	6083.0530	FLOW CELL SEMI-MIC, 2.5UL, VF/C-D1X	1	Included
23	6083.2000	Tungsten lamp, VF/C-D1x/D4, U3DAD/MWD/VWD	2	Included
24	7200.1000	THERMO INSTRUMENT FOR ENTERPRISE	1	Included
25	7200.0300	ENTERPRISE CLIENT	1	Included
26	7350.0104A	CM7 LICENSE KEY: NEW	1	Included
27	OPTON-31001	SW, TRACEFINDER 5.2	1	Included
28	OPTON-31050	SW, NIST TANDEM MS LIBRARY	1	Included
29	OPTON-30961	GEN N2, GENIUS XE35,230V,35L MIN, ROHS Genius XE Nitrogen is a cutting-edge evolution combining advanced technology with refined and robust engineering. Genius XE 35 Nitrogen provides a premium standalone nitrogen solution for high performance LC-MS and other mission-critical laboratory applications where performance and reliability are paramount. Featuring Multi-Stage Purification™ and next generation integrated compressors with Electronic Compressor Optimization™ (ECO) technology. Genius XE can operate with varying flow rates (up to 35L/min of high purity nitrogen), purity (up to 99.5%) and outlet pressure can be adjusted down from 116psi, offering a flexible solution for a variety of applications.	1	Included
30	OPTON-08600-A4	KIT, QUALIFICATION, LC_LCMS_GC_GCMS, A4	1	Included
31	HAZMAT-01-00034	KIT, QUALIFICATION STANDARDS, LC/LCMS	1	Included
32	25902-102130	HYPERSIL GD PHENYL 1.9UM 100X2.1MM COL	3	Included
33	97102-102130	Synchronis C18 100x2.1mm 1.7um	3	Included
34	97202-102130	Synchronis C8 100x2.1mm 1.7um	3	Included
35	97502-102130	Synchronis HILIC100x2.1mm,1.7um	3	Included
36	25402-102130	100X2.1MM 1.9U HYPERSIL GOLD PFP	3	Included
37	25703-152130	150x2.1mm 3um GOLD Amino	3	Included
38	17926-152130	ACCUCORE PH/HEX 150x2.1MM	3	Included
39	25202-102130	Hypersil GD C8, 100x2.1mm, 1.9um	3	Included
40	25002-102130	HYPERSIL GOLD 1.9UM 100 x 2.1MM COLUMN	3	Included
41	SPCL	Amide Column – 4.6x150mmx3.5 um	3	Included
42	6PMSC540W	MSKIT 2ML CLR SCR 9MM SHORT SS ID BL PP	30	Included
44	6083.1111	D2 LAMP, VF/C-D1X	1	Included
45	A-327	POLYMERIC TUBING CUTTER	2	Included
46	60182-509	1/16 inch Tubing Cutter	2	Included
52	SPCL	PM Kit	4	Included
53	37005-50	PEEK CAPILLARY TUBING 1/16"OD, 0.005"ID	20	Included
54	88340	TRIPLE QUAD CALIBRANT, EMR	4	Included
55	00106-10498	TUBING, FUSED, SI 150u X 390u, RoHS	2	Included
56	6042.2340	VIPER CAP., IDXL 0.1X350MM, MP35N	28	Included
57	N/P	Branded Micropipettes with stand each 0.5ul- 10ul =2 nos 10-100ul =2nos 20-200ul = 2 nos 100-1000ul = 2nos	1Set	Included
58	N/P	Branded 15 KVA true online UPS with double conversion technology system having 3phase input & 1phase output with SMF battery with Battery rack & Intercell connector to provide 60 mints backup	1	Included
59	N/P	Argon Filled Gas Cylinder Purity: 99.999% in 47 Ltrs. Carbon Steel Cylinder with Valve, Valve guard, necessary Tubing & Connectors & Certificates; Gas Volume: 7.0m3.	2	Included
60	N/P	Double Stage SS Diaphragm Gas Pressure Regulator for Argon	2	Included
61	N/P	Gas Purification Panel with Molecular sieve, Moisture & Oxygen traps with necessary tubing's, Bracket, Cylinder Cage, Nuts & Ferrules with Automatic Changeover for Argon	1	Included
62	N/P	Suitable sturdy anti vibration table with SS/Granite top for instrument, with drawers for keeping documents and spare parts	1	Included



63	N/P	Desktop CPU and monitor must be quoted for offline data processing (64 GB RAM or more, 4 TB HDD or more, 23-inch monitor or more) which should be accommodated with the quoted software. A network access storage (NAS) with 60 TB capacity.	1	Included
64	N/P	Branded Laser Jet Multifunctional Printer	1	Included
65	N/P	Branded 24' monitor	1	Included
Detailed specifications of the items shall strictly conform to those specified in Purchaser's Tender Document No.: IICB/PUR/24-25/599/648/159RT [published as a GTE on CPP portal of Government of India with tender ID 2025_CSIR_230959_1] and complied by Supplier in their quotation/offer Q/KOL/5/IICB/LCMSMS/25, dated 21.04.25 and your letter no. L/KOL/5/IICB/LCMSMS/25, dated 18.07.25, Lt-2/KOL/5/IICB/LCMSMS/25, dated 30.08.25 Q/KOL/5/IICB/LCMSMS/25 dated 15.10.25 email dated 22.07.25, 03.09.25, 16.10.25 & 07.12.25, 12.12.25,19.12.25 & 23.12.25.				
Grand Total			Rs.2,22,01,726.45	
Add : IGST @ 18%			Rs. 39,96,310.76	
Total			Rs. 2,61,98,037.21	
F.O.R. CSIR-IICB Kolkata Price			Rs. 2,61,98,037.00	
Rupees Two Crore Sixty One Lakh Ninety Eight Thousand and Thirty Seven only				

The Purchase Order shall be governed by the terms and conditions as stipulated in CSIR-IICB Tender Document. The technical specifications and other allied features of the ordered goods and services shall strictly conform to those specified in the CSIR-IICB Tender Document.

Attention of the Supplier is also invited to the following conditions:

1	Price basis	F.O.R. CSIR-IICB Kolkata
2	Delivery period	The entire obligations of supply, installation and commissioning of the ordered goods shall have to be completed within 23.02.26. Purchaser reserves the right to ask for a joint inspection of the delivered goods in the presence of supplier's representative.
3	Delivery site	CSIR-IICB, CN-06, CN Block, Sector V, Bidhannagar, Kolkata, West Bengal 700091
4	Taxes & Duties	IGST @18% shall be applicable on the order value.
5	Installation and Commissioning	The ordered goods shall be installed and commissioned by Supplier's engineers within the delivery period stipulated in this Purchase Order.
6	Training	Training has to be imparted for 10 days at the time of installation and commissioning.
7	Warranty	The ordered goods shall be covered under on-site comprehensive warranty for a period 60 months on the whole system and accessories including Nitrogen Generator with PM Kits to be effective from the date of successful installation and commissioning of the goods. Other aspects of the warranty clause are detailed at GCC Clause 2.21 read with the relevant SCC.
8	Payment terms	<p>The payment shall be made in Indian Rupees as follows:</p> <p>80 percent (Eighty percent) of the Contract Price shall be paid on receipt of all the ordered Goods in good condition and upon submission of the documents specified in the Purchase Order. At the time of taking delivery of the ordered goods, Purchaser reserves the right to ask for joint inspection in presence of Supplier's representatives for verification of the goods delivered. The eighty percent of contract price shall mean to be eighty percent of the basic cost of goods plus 100% taxes [GST] less TDS-GST at the applicable rates.</p> <p>The remaining 20 percent (Twenty percent) of the Contract value shall be paid to the Supplier within thirty (30) days after the date of the</p>



		acceptance certificate issued by the Purchaser subject to submission of Performance Security.  <b>Note: All payments due under the Contract shall be paid after deduction of statutory levies at source ( wherever applicable.</b>
9	Performance Bank Guarantee / Performance Security	Within 21 days of issue of this Purchase Order, Supplier shall furnish a Performance Security for 05 % of the order value / invoice value. Other aspects of the Performance Security clause are detailed at GCC Clause 2.13 read with the relevant SCC.
10	Liquidated damage	Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value in case the delivered price of the delayed Goods or unperformed services cannot be ascertained from the contract, for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default.  <b>The penalty shall be 0.5% per week or part of a week towards late delivery and towards delay in installation and commissioning. The maximum amount of penalty shall be 10%.</b>
11	Terms and conditions	All the terms and conditions as per GCC & SCC as mentioned in the tender document of CSIR-IICB bearing No. IICB/PUR/24-25/599/648/159RT [published as a GTE on CPP portal of Government of India with tender ID 2025_CSIR_230959_1] shall be applicable
12	Spare Availability	The spare parts and any update related to the software will be made available for 10 years from date of the purchase order.
13.	Custom Duty Exemption Certificate	For supplies made from within India, Custom Duty Exemption Certificate and DSIR Certificate will not be issued.

The Purchase Order shall be governed by the terms and conditions laid down in our tender document vide Tender Document No.: IICB/PUR/24-25/599/648/159RT [published on CPP portal of Government of India with tender ID 2025\_CSIR\_230959\_1].

You are requested to send us the Order Acknowledgement immediately and in any case within 14 days of receipt of this Purchase Order.

This Purchase Order constitutes a binding contract between you as the Supplier and CSIR-Indian Institute of Chemical Biology as the Purchaser.

Yours faithfully,

*R. Ray*  
24/12/25

Controller of Stores & Purchase  
For and on behalf of the Council of Scientific & Industrial Research

**आर. रे / R. RAY**  
भंडार एवं क्रय नियंत्रक  
**Controller of Stores & Purchase**  
सीएसआईआर-भारतीय रासायनिक जीवविज्ञान संस्थान  
(विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार)  
**CSIR-Indian Institute of Chemical Biology**  
(Ministry of Science and Technology, Govt. of India)  
4, राजा एस सी मल्लिक रोड, यादवपुर, कोलकाता- 700 032, भारत  
4, Raja S. C. Mullick Road, Jadavpur, Kolkata - 700 032, India