

23- 11622-7F

Purchase Order

Appendix 61

INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

Supplier:	ITS SCIENCE PHILS., INC.	P.O. No.:	GIAE-PO-2023-12-1564 (STD)
Address:	#3434-C.C. Raymundo Ave., Rosario, Pasig City	Date:	December 29, 2023
TIN:		Mode of Procurement:	PB

Gentlemen: Please furnish this Office the following articles subject to the terms and conditions contained herein:

Place of Delivery:	NATIONAL METROLOGY DIVISION	Delivery Term:	90 CD
Date of Delivery:		Payment Term:	

Stock/Property No.	Unit	Particulars	Quantity	Unit Cost	Amount
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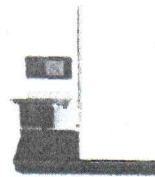
SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF ONE (1) UNIT INDUCTIVELY COUPLED PLASMA - OPTICAL EMISSION SPECTROPHOTOMETER (ICP-OES) 6,500,000.00

N **NO790005**

Avio™ 220 Max ICP-OES, Cyclonic/Concentric

3,856,440.00 3,856,440.00

PerkinElmer's Avio™ 220 Max ICP-OES is a compact, bench-top ICP-OES that combines a vertical plasma design with a host of unique hardware features to handle even the most difficult, high-matrix samples without dilution, delivering a whole new level of performance and flexibility to ICP.



These include:

- RF generator with Flat Plate™ plasma technology generates a robust, matrix-tolerant plasma using half the argon of other systems;
- Patented Dual View capability measures every wavelength with no loss of light or sensitivity;
- Full-wavelength-range CCD array detector measures the wavelength range around the emission line of interest—simultaneously—for superior precision.

The smallest ICP on the market, Avio 220 Max offers the most efficient operation, reliable data, and lowest cost of ownership by delivering:

- The lowest argon consumption of any ICP (only 9 L/min versus 21 L/min required by other systems)
- The fastest ICP startup (spectrometer ready in just 10 minutes from power on)
- Superior sensitivity and resolution for all elements of interest

The widest linear range

Plus, Avio 220Max unprecedented performance comes with unparalleled ease of use. Unique hardware features and Syngistix cross platform atomic spectroscopy software combine to make multi-element measurements as easy as single element analyses.

Includes a Glass Cyclonic Spray Chamber, 2mm Injector and Meinhard Concentric Nebulizer

Instrument Dimensions:

65 x 81 x 76 cm (W x H x D)
65 cm wide (26 in.), 81 cm high (32 in.), and 76cm deep (30 in.)

Weight:

132 kg (292 pounds), or 146 kg (322 lbs) with the shipping container.

Power Requirements:

200 to 230 V AC ~, 50/60 Hz. Power consumption 2800 VA (maximum)

Complete system for the analysis of elements (Al, Ba, Ca, Cd, Cu, Fe, K, Mg, Na, Si, Ti) including hydride forming elements (As, Se, Hg, etc.) for drinking water, dialysis water, and complex matrices such as food, soil, salt, plant material and construction materials

Capable of quantification from ppb to % concentration range without dilution or concentration

Instrument capable dual view (simultaneous or sequential radial and axial) analysis in a single run

System should be able to read at the visible and UV range together at the same time

Built-in 12-roller peristaltic pump: 4 channels with adjustable pump speed (0-35 rpm)

Capable of in-line mixing sample solution and internal standard solution

1	NO790131	Quartz Torch 1-Slot Avio		17,045.00	17,045.00
1	NO791189	Quartz Injector 2.0 mm Avio		8,260.00	8,260.00
1	NO791352	Baffled Cyclonic Spray Chamber Avio		32,410.00	32,410.00
1	NO777707	MEINHARD Type K1 Nebulizer 1 mL/Min		27,265.00	27,265.00
1	NO780546	GemTip Cross Flow Nebulizer		0.00	0.00
1	NO791183	2.0 mm Alumina Injector		0.00	0.00
1	NO791499	Scott Spray Chamber		0.00	0.00
1	NO790606	Scott Torch Module Avio 220Max Kit for High salt or high TDS samples (at least 5% TDS) It is an excellent general purpose sample introduction system for the analysis of strong mineral acids (including HF) and samples with less than 5% dissolved solids. Includes: Gemtip Cross flow nebulizer, Quartz Torch, 2.00mm Quartz Injector, Scott Spray Chamber		79,765.00	79,765.00

EMAILED

Recipient: _____
Date: 01-23-24 Time: _____

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1	N0S10433	Hydride Accessory Kit <u>Includes:</u> Silicone Tubing ID 5mm Thickness x 2 mm PVC Tube 3x1 TR 75 Shore PTFE Tubing 110 mm PTFE Tubing 100 mm 1.52 mm ID Tubing Blue/Yellow/Blue, Pkg. 12 Adapter A, D with Intern Screw Thread 1.8mm Adapter C, D = 4.0 Adapter E, D = 6.0 Tubing Connector for FIAS-400MS PTFE Tubing 300 mm Tubing Adapter k Mixing Separation Assembly PTFE Membrane, Pkg. 50 3.18 mm ID Black White/Black Pkg. 12 PVC Tubing for 2 mL/min, P40 Ultrasonic Axial Adapter Quick Disconnect Tubing for 2000/4000 Glass Ball Joint Adapter		66,885.00	66,885.00
2	B0094032	Narrow Neck Bottle, 500mL for reductant and acid reagent		1,330.00	2,660.00
2	00470660	15L Drain Bottle Assembly		17,430.00	34,860.00
1	N0780202	ICP Syngistix Software Assembly Designed to optimize the performance of Avio® Max ICP-OES instruments and improve efficiencies in the lab, Syngistix for ICP software mirrors the progression of your workflow, guiding users through each step for greater control and confidence. Flexible and easy to use, the software offers immediate benefits whether you're running the instruments, running the laboratory, or running the business.		141,330.00	141,330.00
1	N0772046	WhisperCool 1 HP Chiller 208-230 V 60 Hz Analog control of circulating temperature in the range of -10 °C to +40 °C (+0.1°C) and a cooling capacity of 2400 W at 20 °C circulating temperature. Includes remote on/off and necessary connectors 208-230V, 60 Hz, 12.2 A.		274,225.00	274,225.00
1	N0776200	Chiller Cooler Mix		10,675.00	10,675.00
2	N0582152	UV Wavelength calibration Solution, 5% HCL (500ml/bot) 100 mg/L: K, P, S; 20 mg/L: As, La, Li, Mn, Mo, Na, Ni, Sc		2,520.00	5,040.00
2	N9302946	VIS Wavelength calibration Solution, 2% HNO3 (250ml/bot) 50 mg/L: K, 10 mg/L: La, Li, Mn, Na, Sr; 1 mg/L: Ba, Ca		11,305.00	22,610.00
1	N9300236	Set of Multi Element Solutions Consists of: 1 ea N9300232 Multi-Element Solution 2 <u>Multi-Element Solution 2</u> 10 µg/mL: Cd, Cr, Cu, Fe, Pb, Pt, Se, Sn, Ti, Tm, U, V, Zn 125 mL N9300232		42,840.00	42,840.00
		1 ea N9300233 Multi-Element Solution 3 <u>Multi-Element Solution 3</u> 10 µg/mL: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, Hg, In, K, Li, Mg, Mn, Na, Ni, Pb, Pt, Se, Sr, Ti, U, V, Zn 125 mL N9300233			
		1 ea N9300234 Multi-Element Solution 4 <u>Multi-Element Solution 4</u> 10 µg/mL: Au, Hf, Ir, Pd, Pt, Rh, Ru, Sb, Sn, Te 125 mL N9300234			
		1 ea N9300235 Multi-Element Solution 5 <u>Multi-Element Solution 5</u> 10 µg/mL: B, Ge, Mo, Ni, R, Re, S, Si, Ta, W, Zr 125 mL N9300235			
1	N0770390	Installation Solutions Kit		44,520.00	44,520.00
10	09908587	Standard peristaltic pump tubing resistant to most mineral acids, black		1,120.00	11,200.00
10	09908585	Standard PVC for drain, red		1,120.00	11,200.00
1	N0815125	Compact Air Filter Assembly		16,695.00	16,695.00

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1	N0830015	S23 Autosampler The S20 series is a platform of high-performance, robust, chemically resistant and agile autosamplers, designed specifically to improve sample throughput and save on analysis time. S23 autosamplers in this platform are fully integrated in PerkinElmer software, ensuring seamless operation and reliable communication between the various hardware components. These versatile autosamplers feature the following: <ul style="list-style-type: none"> Proprietary crash detection which prevents damage from being caused to the autosampler probe if it comes into contact with a capped sample vial. This reduces the turnover and cost of consumables and ensures that your autosampler components are protected. A chemically resistant sample tray which can be easily replaced if needed, without having to replace the whole autosampler. LED status lighting, which provides a visible indication of the autosampler state e.g. standby, running or error and ensures easy mitigation and diagnosis of issues. The S20 Series Autosampler Software allows users to preset specific parameters such as sampling speed, autosampler peristaltic pump speed and create custom tray configurations allowing a choice of rack types and sampling depths thereby limiting the amount of programming used by the respective software's, and allowing users full flexibility in their sampling needs. S20 Software is not required to be open in the background, thereby further simplifying analysis. 		317,135.00	317,135.00
		The S23 autosampler features the following: <ul style="list-style-type: none"> 3 rack S23 autosampler running up to 270 samples Variable speed 3-channel pump autosampler 1 serial 9RS232) port 1 USB (virtual com port) 5 auxiliary inputs and 5 output 100 - 240VAC 			
1	N0830011	S23 Autosampler Enclosure		133,945.00	133,945.00
1	N0777747	Carbon Probe, 0.5mm ID (Blue)		15,365.00	15,365.00
1	B0193234	30mm Conical Stand 28x115mm w/Cap for standards Qty 100		9,625.00	9,625.00
1	N0777167	Sample Tubes, 15 ml Round 17mm x100mm, Qty. 1200		4,270.00	4,270.00
2	N0830028	23 Position Rack 3x7/28 mm Tube OD		1,785.00	3,570.00
4	N0830026	60 Position Sample Rack (for 15 ml Tubes)		1,190.00	4,760.00
1	ITSPH	Lenovo Windows 11 Complete PC system with 27" monitor and HP 3-in 1 Deskjet Ink Printer Processor: Core i5 Latest Generation Operating System: Windows 11 Home Edition 9 compatible OS with the instrument software) -RAM: 8 GB or better, ROM: 2 TB SSD -Graphics Card: at least 1GB dedicated graphics card -includes MS Office (Word, Excel, Powerpoint) Business lifetime license and with at least one (1) year licensed anti-virus software -computer accessories including wired mouse, wired keyboard, router, 750VA UPS and 750VA AVR and a 2 TB portable external hard drive with USB cable (for back-up of data)		80,000.00	80,000.00
1	ITS	Silent type Air Compressor 2HP and regulator		60,000.00	60,000.00
1	ITS	Accu-power 10 KVA Capacity Uninterrupted power supply (UPS) 220 V that can provide 30 minutes backup, 200 - 240VAC, 50/60Hz with conversion from 3 phases to single phase output. With 5m wired extension with 6 outlets		180,000.00	180,000.00
1	ITS	10KVA Automatic Voltage Regulator (AVR)		80,000.00	80,000.00
2	ITS	Argon gas with cylinders (99.5 - 99.996 % purity), with 2 refills		30,000.00	60,000.00
1	ITS	Nitrogen gas with Cylinder with 2 refills		0.00	0.00
1	ITS	Gas lines for Argon, Nitrogen and Air (60m) made of SS316 stainless steel; ¼ inch with a thickness of 0.9mm (includes installation)		500,000.00	500,000.00
1	ITS	Exhaust system for the ICP-OES		200,000.00	200,000.00
2	ITS	Argon and Nitrogen regulators with in-line filters		25,000.00	50,000.00

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Supplier: ITC SCIENCE PHILS., INC.	P.O. No.:	GIAE-PO-2023-12-1564 (STD)
Address: # 3434-C C ROYALUNDO AVE. RANARAW, PASIG CITY	Date:	December 29, 2023
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1	ITS	Mixed element standard solution of 100mg/L for each element (contains Ag, Al, Ba, Ca, Cd, Cu, Cr, Fe, K, Mg, Na, Si, Ti, Zn, As, He, Se) traceable to NIST standards Composed of one bottle each of: P/N N9303941 PerkinElmer ICP IV 125 mL PerkinElmer Pure IV (Quality Control Standard 23) <i>100 µg/mL Ag, Al, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Sr, Ti, Zn</i> P/N N9308541 Standard 5 Multi-Element Standard 125 mL <i>100 µg/mL Ge, Mo, S, Si, P</i> P/N N9308543 Standard 25 Multi-Element Standard 125 mL <i>100 µg/mL Ag, As, B, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, K, Li, Mg, Mn, Na, Ni, P, Pb, Se, Sr, Ti, U, V, Zn</i> P/N N9304325 Hg 10,000ug/mL 10% HN03 ICP 125 mL Includes CoA upon delivery		51,100.00	51,100.00
1	N9304128	Yttrium 10,000 ug/mL Internal Standard Solution ICP grade, 1yr shelf-life, 125 mL		4,305.00	4,305.00
1	ITS	Specialized tools for routine maintenance and simple troubleshooting		40,000.00	40,000.00
1	ITS	Instrument installation and commissioning; certificates of installation qualification, operational qualification and equipment qualification			
1	ITS	Instrument Performance Verification and consumables needed to perform IPV			
1	ITS	Annual preventive maintenance for ICP-OES, autosampler, chiller included in the warranty for 3 years including the kits needed			
					6,500,000.00
Less: VAT					290,178.57
EWT					58,035.71
TOTAL:					6,151,785.72

END USER: *Christy S. Daniel*
CHRISTY S. DANIEL

(Total Amount in Words): Six Million One Hundred Fifty One Thousand Seven Hundred Eighty Five Pesos & 72/100

In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed on the undelivered item/s.

Conforme: *Maria Ramona O. Danon* Signature over Printed Name of Supplier
Date: *Jan 23, 2024*

Very truly yours, *Annabelle V. Briones* Signature over Printed Name of Authorized Official
DR. ANNABELLE V. BRIONES Director
Designation

Fund Cluster: SMARTER ONELAB FOR INDUSTRY 4.0 THROUGH TESTING AND CALIBRATION, EDUCATION, AND DISCOVERY (ONELAB FOR TED)

Date: *Jan 22, 2024* Signature over Printed Name of Chief Accountant/Head of Accounting Division/Unit Accountant II
PATRICIA ASHLEY M. MENDOZA

ORS/BURS No.: *IFCO-23123144*
Date of the ORS/BURS: *Jan 22, 2024*
Amount: *6,151,785.72*