

# PURCHASE ORDER

## INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

QR-ADMPPS-04

DOST Compound, Gen. Santos Ave., Bicutan, Taguig City  
DOST Trunkline: 837-2071 local 2220 / 2221

18. 035 GF

|                |                                              |                      |                   |
|----------------|----------------------------------------------|----------------------|-------------------|
| Supplier:      | ITS SCIENCE (PHILS.) INC.                    | P.O. No.:            | GF-E-542-2017     |
| Address:       | 3434-C C. Raymundo Ave., Rosario, Pasig City | Date:                | December 29, 2017 |
|                |                                              | Mode of Procurement: | Public Bidding    |
|                |                                              | Resolution No.       | ITDI-PB-170041    |
| (3)<br>rc-23-4 |                                              | PR #                 | 13-2017-0863      |
|                |                                              | ASC #                |                   |

Gentlemen:

Please furnish this office the following articles to the terms and conditions contained herein:

|                    |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |                |              |                  |  |
|--------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|--------------|------------------|--|
| Place of Delivery: |      | Metrology Bldg. (not later than 3:00 P.M.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | Delivery Term: |              | Ninety (90) days |  |
| Date of Delivery:  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | Payment Term:  |              |                  |  |
| Stock No.          | Unit | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quantity | Unit Cost      | Amount       |                  |  |
| 1                  | unit | <p>Flame Atomic Absorption Spectrophotometer<br/> Perkin Elmer Model PINAACLE 900F Atomic<br/> Absorption Spectrometer, 8-Lamp Holder, D2<br/> Background Corrector, Fiber Optics Technology<br/> &amp; Built-In EDL Power Supply, 110-220VAC, 50/60Hz<br/> "Real-Time" True double-beam Echelle optical system<br/> with front surfaced, reflecting optics fully covered<br/> with protective coating.<br/> "With deuterium background corrector and two<br/> built-in EDL power supplies.<br/> "Focal length must be 300 mm. Grating: 36 x 185 mm<br/> area, 79 lines/mm, and blaze angle 760. Fused<br/> quartz prism: 95 x 40 mm, 600<br/> "Wavelength: 185 - 900 nm with Automatic Spectral<br/> bandpass: 0.12 to 2nm<br/> "The photometer optics should be covered to<br/> protect against dust and corrosive vapors<br/> "Optical system can be purged for maximum protection<br/> "Light Sources: Includes hollow Cathode or electrodeless<br/> discharge lamps (EDLs). EDLs provide much higher<br/> light output and longer lifetime when compared to<br/> conventional hollow cathode lamps<br/> "Lamp elements and recommended operating<br/> currents and slit selection are automatically<br/> recognized and set automatically<br/> "All electronics are located in a single user-replaceable<br/> module that the operator can easily replace w/o</p> | 1        | 3,395,000.00   | 3,395,000.00 |                  |  |

Detector: high efficiency, resistant to static discharge

Page 1 of 5 pages  
Total Amount in Words

Page 1 of 5 pages -

(Total Amount in Words)

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.

Very Truly yours,

Conformer:

*[Signature]*  
Vidagohin Mager  
(Signature over printed name)  
January 25, 2018  
(Date)

|                                      |                                   |               |
|--------------------------------------|-----------------------------------|---------------|
| Requesting Officer/Dept:             | Funds Available:                  | Amount:       |
| DR. ROSALINDA C. TORRES<br>Chief-STD | SOLEDAD S. REYES<br>Accountant IV | 12,417,207.71 |

PD-10000000

# PURCHASE ORDER

## INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

QR-ADMPPS-04

DOST Compound, Gen. Santos Ave., Bicutan, Taguig City  
DOST Trunkline: 637-2071 local 2220 / 2221

*R. O. G.*

|               |                                              |                      |                   |
|---------------|----------------------------------------------|----------------------|-------------------|
| Supplier:     | ITS SCIENCE (PHILS.) INC.                    | P.O. No.:            | GF-E-542-2017     |
| Address:      | 3434-C C. Raymundo Ave., Rosario, Pasig City | Date:                | December 29, 2017 |
| (3)<br>PO-004 |                                              | Mode of Procurement: | Public Bidding    |
|               |                                              | Resolution No.       | ITDI-PB-0041      |
|               |                                              | PR #                 | 13-2017-0893      |
|               |                                              | ASC #                |                   |

Gentlemen:

Please furnish this office the following articles to the terms and conditions contained hereic:

Place of Delivery:

Date of Delivery:

Metrology Bldg. (not later than 3:00 P.M.)

| Stock No. | Unit | Description                                                                                                                                             | Delivery Term: | Payment Term: | Quantity | Unit Cost | Amount       |
|-----------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|----------|-----------|--------------|
|           |      | <b>TOTAL CARRIED FORWARD</b>                                                                                                                            |                |               |          |           |              |
|           |      | requiring a service visit                                                                                                                               |                |               |          |           | 3,398,000.00 |
|           |      | *Flame gas flow: fully automated gas box w/computer-controlled oxidant selection, automatic gas sequencing, oxidant/fuel monitoring & control.          |                |               |          |           |              |
|           |      | *Flame control: Software-actuated ignition w/air/acetylene. Acetylene flow is automatically adjusted when switching to or from H2O/acetylene operation. |                |               |          |           |              |
|           |      | *Burner system: inert-polymer mixing chamber that provides superior analysis of corrosive and high solid matrices.                                      |                |               |          |           |              |
|           |      | *Spray chamber: manufactured from a high strength composite, eliminating the need for pressure relief devices.                                          |                |               |          |           |              |
|           |      | *Optional burner heads: 5-cm nitrous-oxide/acetylene, 1-cm three-slot air/acetylene and 5-cm single-slot air/acetylene                                  |                |               |          |           |              |
|           |      | <u>System has the following safety interlocks:</u>                                                                                                      |                |               |          |           |              |
|           |      | *Burner head                                                                                                                                            |                |               |          |           |              |
|           |      | *Nebulizer                                                                                                                                              |                |               |          |           |              |
|           |      | *end cap                                                                                                                                                |                |               |          |           |              |
|           |      | *burner drain system                                                                                                                                    |                |               |          |           |              |
|           |      | *level of the liquid in drain vessel                                                                                                                    |                |               |          |           |              |
|           |      | *gas pressures                                                                                                                                          |                |               |          |           |              |
|           |      | *flame safety interlock                                                                                                                                 |                |               |          |           |              |
|           |      | <u>System includes:</u>                                                                                                                                 |                |               |          |           |              |
|           |      | -Flame Automizer                                                                                                                                        |                |               |          |           |              |
|           |      | -Air/Acetylene Titanium Burner Head, 10-cm                                                                                                              |                |               |          |           |              |
|           |      | -Adjustable High-precision nebulizer w/ceramic impact bead. Supplied w/spare ceramic beads.                                                             |                |               |          |           |              |
|           |      | -Drain vessel                                                                                                                                           |                |               |          |           |              |

Page 2 of 5 pages

(Total Amount in Words)

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.

Very Truly yours,

Conformer:

*[Signature]*  
Vidangel M. Marger  
(Signature over printed name)  
Vidangel M. Marger  
(Date)

Requisitioning Office/Dept

Funds Available:

Amount

DR. ROSALINDA C. TORRES  
Chief-STD

SOLEDAD S. REYES  
Accountant IV

*[Signature]*

10/10/2017



# PURCHASE ORDER

## INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

QR-ADMPPS-04

DOST Compound, Gen. Santos Ave., Bicutan, Taguig City  
DOST Trunkline: 837-2071 local 2220 / 2221

|               |                                                 |                      |                   |
|---------------|-------------------------------------------------|----------------------|-------------------|
| Supplier:     | ITS SCIENCE (PHILS.), INC.                      | P.O. No.:            | GF-E-542-2017     |
| Address:      | 3434-C C. Raymundo Ave., Rosario,<br>Pasig City | Date:                | December 29, 2017 |
|               |                                                 | Mode of Procurement: | Public Bidding    |
|               |                                                 | Resolution No.       | ITDI-PB-170041    |
| (3)<br>P3-004 |                                                 | PR #                 | 13-2017-0063      |
|               |                                                 | ASC #                |                   |

Gentlemen:

Please furnish this office the following articles to the terms and conditions contained herein:

| Place of Delivery:           |      | Metrology Bldg. (not later than 3:00 P.M.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | Delivery Term: |        | Ninety (90) days |  |
|------------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|--------|------------------|--|
| Date of Delivery:            |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          | Payment Term:  |        |                  |  |
| Stock No.                    | Unit | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Quantity | Unit Cost      | Amount |                  |  |
| <b>TOTAL CARRIED FORWARD</b> |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                |        |                  |  |
|                              |      | -Flame AA Shipping Kit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |                |        |                  |  |
|                              |      | -CD & Operational Manual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |                |        |                  |  |
|                              |      | -Syngistix AA Software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |                |        |                  |  |
|                              |      | Part Number: N3200051                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |                |        |                  |  |
|                              |      | *Heavy Duty Air / Acetylene Filter with Regulator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1        |                |        |                  |  |
|                              |      | Part Number: N9301398                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |                |        |                  |  |
|                              |      | *EDL Driver Assembly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1        |                |        |                  |  |
|                              |      | Part Number: 03030997                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |                |        |                  |  |
|                              |      | Automated Accessory for Mercury & other Hydride Forming Elements:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |                |        |                  |  |
|                              |      | *FIAS 100 Flow Injection System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1        |                |        |                  |  |
|                              |      | The PerkinElmer FIAS-100 and FIAS-400 are high performance flow injection systems for atomic spectrometry offering advanced automated capabilities that include on-line dilution, reagent addition, analyte preconcentration and automated chemistries for cold vapor mercury and hydride generation determinations with a suitable PerkinElmer AA spectrometer. The FIAS systems are provided with one (FIAS-100) or two (FIAS-400) independently controlled (10-120 rpm) peristaltic pumps for carrier, reagent and sample solutions. The digital stepper motor-driven peristaltic pumps can each be equipped with a maximum of 8 tubing channels and can accommodate tubing with 0.13-3.18 mm diameters. Contact pressure on each tube can be independently controlled for optimum performance. A 5-port switching valve permits flow switching and precise |          |                |        |                  |  |

Page 3 of 5 pages

(Total Amount in Words)

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.

Very Truly yours,

Conformer:

*[Signature]*  
Vladimir M. Mares  
(Signature over printed name)  
January 25, 2018  
(Date)

Requisitioning Office/Dept.

DR. ROSALINDA C. TORRES  
Chief-STD

Funds Available:

SOLEDAD S. REYES  
Accountant IV

Amount

RECORD NO.:

1247-2017

PO Number

# PURCHASE ORDER

QR-ADMPPS-04

## INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

DOST Compound, Gen. Santos Ave., Bicutan, Taguig City  
DOST Trunkline: 837-2071 local 2220 / 2221

12.02.17

|               |                                              |                      |                   |
|---------------|----------------------------------------------|----------------------|-------------------|
| Supplier:     | ITS SCIENCE (PHILS.) INC.                    | P.O. No.:            | GF-E-542-2017     |
| Address:      | 3434-C G. Raymundo Ave., Rosario, Pasig City | Date:                | December 29, 2017 |
| (3)<br>FO-004 |                                              | Mode of Procurement: | Public Bidding    |
|               |                                              | Resolution No.       | ITDI-PB-170041    |
|               |                                              | PR #                 | 13-2017-0053      |
|               |                                              | ASC #                |                   |

Gentlemen:

Please furnish this office the following articles to the terms and conditions contained herein:

|                    |          |                                                                                                              |  |                |           |                  |  |
|--------------------|----------|--------------------------------------------------------------------------------------------------------------|--|----------------|-----------|------------------|--|
| Place of Delivery: |          | Metrology Bldg. (not later than 3:00 P.M.)                                                                   |  | Delivery Term: |           | Ninety (90) days |  |
| Date of Delivery:  |          |                                                                                                              |  | Payment Term:  |           |                  |  |
| Stock No.          | Unit     | Description                                                                                                  |  | Quantity       | Unit Cost | Amount           |  |
|                    | Part No. | TOTAL CARRIED FORWARD                                                                                        |  |                |           | 3,395,000.00     |  |
|                    |          | sampling with interchangeable sample loops.                                                                  |  |                |           |                  |  |
|                    |          | Carrier gas flow (40-250 mL/min) during FI-mercury/hydride operation is controlled via a flow meter display. |  |                |           |                  |  |
|                    |          | -Includes: Reaction Bottles, Lid, Mercury Collector, Tubings, CD Manuals                                     |  |                |           |                  |  |
|                    |          | *Quartz Cell 2 for IAS-MHS with FIAS-100/400                                                                 |  | 1              |           |                  |  |
|                    |          | Part Number: B0507496                                                                                        |  |                |           |                  |  |
|                    |          | *Quartz Cell Holder                                                                                          |  | 1              |           |                  |  |
|                    |          | Part Number: B300-0350                                                                                       |  |                |           |                  |  |
|                    |          | *Stirring Rod - PIN: ITSPH                                                                                   |  | 10             |           |                  |  |
|                    |          | <u>Hollow Cathode Lamps &amp; AAS Standards:</u>                                                             |  |                |           |                  |  |
| N3050605           |          | *Arsenic Electrodeless Discharge Lamp                                                                        |  | 1              |           |                  |  |
| N3050634           |          | *Mercury Electrodeless Discharge Lamp                                                                        |  | 1              |           |                  |  |
| N3050114           |          | *Calcium Hollow Cathode Lamp                                                                                 |  | 1              |           |                  |  |
| N3050615           |          | *Cadmium Electrodeless Discharge Lamp                                                                        |  | 1              |           |                  |  |
| N3050121           |          | *Copper Hollow Cathode Lamp                                                                                  |  | 1              |           |                  |  |
| N3050157           |          | *Lead Hollow Cathode Lamp                                                                                    |  | 1              |           |                  |  |
| N3050144           |          | *Magnesium Hollow Cathode Lamp                                                                               |  | 1              |           |                  |  |
| N3050191           |          | *Zinc Hollow Cathode Lamp                                                                                    |  | 1              |           |                  |  |
| ITSPH              |          | *Iron Hollow Cathode Lamp                                                                                    |  | 1              |           |                  |  |
| ITSPH              |          | *Cobalt Hollow Cathode Lamp                                                                                  |  | 1              |           |                  |  |
| ITSPH              |          | *Nickel Hollow Cathode Lamp                                                                                  |  | 1              |           |                  |  |
| ITSPH              |          | *Manganese Hollow Cathode Lamp                                                                               |  | 1              |           |                  |  |
|                    |          | Other Local Supplies:                                                                                        |  |                |           |                  |  |
| ITS-PH             |          | Exhaust Blower Vent & Hood (Complete)                                                                        |  | 1              |           |                  |  |

Page 4 of 5 pages

Page 4 of 5 pages

(Total Amount in Words)

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.

Very Truly yours,

Conforme:

*V. Villaroman*  
Villaroman Manager  
(Signature over printed name)  
25.12.17  
(Date)

|                                      |                                   |                         |
|--------------------------------------|-----------------------------------|-------------------------|
| Requisitioning Office/Dept.          | Funds Available:                  | Amount                  |
| DR. ROSALINDA C. TORRES<br>Chief-STD | SOLEDAU S. REYES<br>Accountant IV | ALCOBS NO. 2017/12 2017 |



# PURCHASE ORDER

## INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

QR-ADMPPS-04

DOST Compound, Gen. Santos Ave., Bicutan, Taguig City  
DOST Trunkline: 837-2071 local 2220 / 2221

12.03.67

|                                                                            |                                     |       |
|----------------------------------------------------------------------------|-------------------------------------|-------|
| Supplier: ITS SCIENCE (PHILS.) INC.                                        | P.O. No.: GF-E-542-2017             |       |
| Address: 3434-C C. Raymundo Ave., Rosario, Pasig City<br><br>(3)<br>PD-024 | Date: December 29, 2017             |       |
|                                                                            | Mode of Procurement: Public Bidding |       |
|                                                                            | Resolution No. ITDI-PB-170041       |       |
|                                                                            | PR # 13-2017-0863                   | ASC # |

Gentlemen:

Please furnish this office the following articles to the terms and conditions contained herein:  
Metrology Bldg. (not later than 3:00 P.M.)

Place of Delivery:  
Date of Delivery:

| Stock No.                    | Unit   | Description                                                                                  | Quantity  | Unit Cost  | Amount       |
|------------------------------|--------|----------------------------------------------------------------------------------------------|-----------|------------|--------------|
| <b>TOTAL CARRIED FORWARD</b> |        |                                                                                              |           |            |              |
|                              | ITS-PH | Silent Type Air Compressor oilless, 220V 50/60Hz                                             | 1         |            | 3,385,000.00 |
|                              | ITS-PH | Branded Intel Core i5 PC with 21" LED Monitor and EPSON Continuous Ink Printer               | 1         |            |              |
|                              | ITS-PH | Licensed Microsoft Office                                                                    | 1         |            |              |
|                              | ITS-PH | Dual Stage Acetylene Regulator, Brass                                                        | 1         |            |              |
|                              | ITS-PH | UHP Acetylene Gas Tank (full)                                                                | 1         |            |              |
|                              | ITS-PH | Dual Stage Argon Regulator, Brass                                                            | 1         |            |              |
|                              | ITS-PH | UHP Argon Gas Tank (full)                                                                    | 1         |            |              |
|                              | ITS-PH | SS Gas lines for Acetylene, Argon & Compressed Air                                           | 1         |            |              |
|                              | ITS-PH | AVR 10KVA Capacity 220V, 50/60 Hz                                                            | 1         |            |              |
|                              | ITS-PH | True on line UPS 10KVA Cap., 220V, 50/60Hz                                                   | 1         |            |              |
|                              | ITS-PH | AAS Calibration Standard for elements mentioned above (1000ppm, 500ml/bot) Traceable to NIST | 12        |            |              |
|                              | ITS-PH | Equipment Table, table top with Epoxy or Phenolic resin with drawer                          | 1         |            |              |
|                              |        |                                                                                              | Less: VAT | 161,562.50 |              |
|                              |        |                                                                                              | EWT       | 30,312.50  |              |
|                              |        |                                                                                              |           |            | 181,875.00   |
|                              |        |                                                                                              |           |            | 3,213,125.00 |

END-USER:  
CHARGE TO:

TERESA F. AVILES  
Metrology Program: Project A

PREPARED BY:

ROCHEL LEE C. DELUTA  
Administrative Officer V

\*Warranty:  
One (1) year on parts and 3 years on service including Preventive Maintenance.  
\*Installation:  
Installation, commissioning and training on-site included.

Page 5 of 5 pages  
(Total Amount in Words)

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.

Conforms:

for: *[Signature]*  
Vivian M. Mangan  
(Signature over printed name)  
25 Dec 2017  
(Date)

Very Truly yours,

MARIA PATRICIA V. AZANZA, PhD.  
Director

Requisitioning Office/Dept.

DR. ROSALINDA C. TORRES  
Chief-STD

Funds Available:

SOLEDAD S. REYES  
Accountant IV

Amount  
ALOBS No.

3,385,000.00  
2017122017

PD-024/PS-04