

05/30/14 11:30:02AM
West Virginia Purchasing Division

BID RECEIVED LATE
Buyer Tarahyle
Witness Geno Kyrus
DISQUALIFIED

Bruker Optics Response to WVSP Solicitation DPS1425

Option 1

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics Inc. Response to WVSP Solicitation # DPS1425

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Billerica, MA 01821
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Bruker Optics proposal is for the LUMOS standalone/integrated FTIR microscope.
There are three optional proposals which vary in the selection of library databases.
Each proposal contains the following:

3.1.1.1 Fully automated FTIR microscope with validation (21CFR11 compliant) and simultaneous viewing and collection

3.1.1.2 Integrated FTIR sealed and desiccated

Permanently aligned interferometer with a 10-year warranty, KBR/Ge optics

7800-450 cm⁻¹ spectral range; PC-controlled, automatically selectable range

User-replaceable high-intensity source & desiccant

Permanent laser for frequency calibration; 10-year warranty

High speed 24-bit ADC

Automated transmission/reflection objectives and automated condenser

Optional ATR objective (better than the low resolution crystal specified in the bid)

Automated full-view aperture

Automated, PC controlled LEDs for Reflection, Transmssion & Aperture illumination

Fully integrated pressure sensor in the objective (not the stage as specified in the solicitation) providing higher precision

Purge control included with regulator

Ultra high resolution digital CCD color video camera; higher quality than in solicitation: CMOS; 2560 x 1920; QSXGA; 5 Megapixel; ½ inch chip

8X objectives with optical zoom for viewing; achieves 3 micron spatial resolution; nearest competitor achieves 8 micron spatial resolution or worse

English language

All gold coated mirrors

FTIR training for personnel on-site at installation

FTIR advanced microscopy training course for 2 people either off-site or on-line

Motorized high precision (0.1 micron) stage

Motorized joystick

FTIR background and standards plate

Full 1 year warranty on all parts
10-year warranty on interferometer and laser
5-year warranty on source
All warranties are for parts, labor, travel and service time

3.1.2. PC optimized for our microscope

3.1.3. Bio-Rad Automotive Paint Chip Library with 1,990 spectra

3.1.4. OPUS software + 3 different database options:

- **OPTION 1:** Over 220,000 compounds are accessible with integrated software for searching, mixture analysis & multi-component library searching over the entire BioRad database
Requires an annual, low-cost subscription; purchase up to 3 years at one time
- **OPTION 2:** Over 30,000 forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching
- **OPTION :** Choose the databases that you want of forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching

3.1.5 & 6. Purchase as many years of support/maintenance as you like; parts, labor and travel are free-of-charge and 1 PM visit per year is included!

Bruker Option 1:



Sold To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Ship To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Quotation no. 1220024491
Document date 05/28/2014
Valid until 07/27/2014
Delivery time after
Receipt of order approx.30 days

Your Customer No. 1087468
Contact Person Diane Allen
Telephone (978) 439-9899
Tel. ext. 5458
Email diane.allen@brukeroptics.com

Includes 1 Full Year of Warranty on all parts, service, travel & maintenance and the same protection plus 1 annual PM service visit for 2 additional years.

Includes Additional Free Extended Warranties for Low Cost-of-Ownership:

- 10-year warranty on our maintenance-free Rocksolid (TM) interferometer!
 - 10-year warranty on our solid-state laser!
 - 5-year warranty on our Global Source!
 - Full 1-year warranty on all other items!
- * Warranties are for parts and labor!

FOB Destination/Shipping at no charge to WVSP -- supercedes any other shipping description in this document.

Item	Material/Description	Quantity	Unit price USD	Amount USD
	Spectrometer			
1	LUMOS Standalone FT-IR microscope For routine and advanced applications with full automation. All components of the LUMOS are motorized. The LUMOS is a very compact FT-IR microscope (width x height x depth: 30 x 64 x 52cm) including a FT-IR spectrometer with a permanently aligned RockSolid interferometer ensuring excellent sensitivity and wave length stability. Beside transmission and reflection, the LUMOS is also prepared for fully automated measurements in attenuated total reflection (ATR) using a motorized ATR crystal. Automation includes sample, background and calibration measurements. The LUMOS can be used for automated single point measurements but also for automated mapping and imaging. The very intuitive	1PC		

Bruker Optics Inc.
19 Fortune Drive
Billerica, MA 01821
Phone: 978-439-9899
www.brukeroptics.com



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>OPUS software guides the user step by step through data acquisition and includes many features for effective data processing, data evaluation and data visualization. All essential optical and electronic components of the LUMOS are monitored continuously to provide highest sensitivity during full life time. In case of a component failure or when a test for OQ/PQ has expired, the operator is notified immediately. The LUMOS utilizes a diode laser and a RockSolid interferometer with a life time of over 10 years and an infrared light source with a life time of over 5 years. The only consumable for the LUMOS is the liquid nitrogen for the cooling of the sensitive MCT detector. To facilitate the usage of the LUMOS even in countries with high humidity, all included IR-transparent window material and the beam splitter are made from ZnSe which is fully inert against water vapor.</p> <p>Includes:</p> <ul style="list-style-type: none"> - Standalone FTIR spectrometer microscope with permanently aligned RockSolid interferometer (ZnSe-BMS; gold coated mirrors; life time >10 years) - Spectral resolution: better than 2cm⁻¹; option: better than 0.8cm⁻¹ - Spectral range: 7,000-650cm⁻¹ - Sealed and desiccated housing with ZnSe windows to be resistant against humidity; desiccant reusable; prepared for purge with dried air (not required) - Instrument tests for operational and performance qualification (OQ; PQ); including internal calibration procedures for spectral axes (polystyrene standard) - Permanent monitoring of all essential spectrometer components, system performance and humidity - Diode laser (diode, life time >10 years) - SiC glowbar source with long life time (>5 years) - Mid band MCT detector D316015/BP (7,000-650cm⁻¹; liquid N2 cooled, including preamplifier; True 24 bit ADC; Permavac) - IR and Vis illumination and focusing optics for transmission and reflection - Independent white light LED illumination for Vis in transmission and reflection with Köhler apertures for contrast enhancement - 8x Cassegrain objective for measurements in transmission, reflection and attenuated total reflection (ATR); NA (0.4-0.6), working distance (30mm); equipped with a motorized ATR crystal for automated ATR measurements with pressure control - Automated change of numerical aperture (NA) between IR (0.6) and Vis (0.4) mode - Automated change from IR to Vis mode. Permanent view of sample with positioned aperture even during IR data acquisition - Motorized condenser with automated adjustment for transmission (autofocus) and automated parking for reflection and ATR. - Motorized z drive for xy-stage - Motorized transparent knife-edge aperture with precise positioning; permanent view of aperture even during data collection - Autofocus; can be activated by one click touch or used automatically before each measurement - Motorized xy sampling stage; adjustment range: 75x50mm; adjustment accuracy (=smallest step size): 0.1µm; repeatability: <1µm. Allows fully automated mapping and imaging measurements in all measurement modes. - Insertion plate for motorized stage to perform automated background 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>measurements in transmission, reflection and ATR and to perform automated OQ/PQ tests</p> <ul style="list-style-type: none"> - Fast CMOS camera; 2560 x 1920; QSXGA; 5 MegaPixel; 1/2"; large field of view: 1.5 x 1.2 mm, digital 4x zoom - Joystick - OPUS/ Video software with a special GUI guiding the operator through the sample inspection and data acquisition procedure - OPUS/3D for data processing, evaluation and visualization - OPUS/MAP software for control of the motorized xy-stage - Internal validation unit for automated OQ/PQ testing with reference standards 			
	Spectral Range Extension			
2	<p>W304/LM</p> <p>Spectral range extension to 7,800-450cm⁻¹ includes KBr optics (beam splitter and windows) in lieu of ZnSe and broad band MCT detector D315015/BP in lieu of mid band MCT D316015/BP only available for new LUMOS; option can not be upgraded on existing LUMOS</p>	1PC		
	Objectives			
3	<p>S777/LM-</p> <p>without motorized ATR crystal</p> <p>price reduction</p>	1PC		
	OPUS Spectroscopy Software			
4	<p>O/IR+</p> <p>OPUS/IR, FT-IR Spectroscopy Software Package</p> <p>OPUS is an integrated spectroscopy software for laboratory and process control.</p> <p>OPUS is easy to use:</p> <ul style="list-style-type: none"> - Configurable user interface and access to executable functions - Automatic consistency-test of measurement parameters - Multi Tasking: Measurement and data manipulation/evaluation at the same time - Automated atmospheric correction for water vapor and CO₂ in MIR without the need for reference spectra <p>OPUS delivers reliable results in a short time:</p> <ul style="list-style-type: none"> - Single and repeated measurements, auto sampler support - Many interactive functions for comfortable data processing and evaluation, e.g. <ul style="list-style-type: none"> - Normalization, calculate derivative and average spectra, spectra subtraction - Spectrum calculator - Curve fit - Peak Pick - Spectra interpretation tool - Quick Compare spectra - Search spectra in a library, create your own libraries - Free starter library 	1PC		



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<ul style="list-style-type: none"> - Analyze peak areas and heights, quantitative analysis (Lambert-Beer's Law) - Automated multi step evaluation of spectra (MultiEvaluation) - Predefined print layouts, customizable print layouts - Conversion of files to different file formats (eg JCAMP) - Easy data export to other programs <p>OPUS is a validated software and supports the validation of the spectrometer:</p> <ul style="list-style-type: none"> - Automated OQ and PQ testing - Permanent instrument status indicator, online monitoring of system performance <p>OPUS is compliant to cGMP/GLP:</p> <ul style="list-style-type: none"> - Multi level user management, log-in with user name and password - Audit trail (history log function) - All data, incl. manipulation and evaluation results, stored in ONE file - Electronic signature of spectra and methods <p>OPUS supports user during daily routine work:</p> <ul style="list-style-type: none"> - Run, create and edit macros and VB scripts - Automated execution of repeated actions via calendar - Lab journal functionality - Online help - Multimedia FT-IR tutorial <p>This OPUS software package is included in the standard delivery of the spectrometer system. Spectra viewer software is available free of charge.</p>			
5	O/3D+	1PC		
	<p>OPUS/3D, Software package for 3D data processing, evaluation and visualization:</p> <ul style="list-style-type: none"> - broad variety of 2D and 3D views for 3D and 4D data, like: display 3D, false colour and contour plots, traces in variable size - IR and Raman images can be displayed in 2D and 3D on top of or next to the visible/video image of the sample - calculation and presentation of RGB images - correlation of 3D data with single component spectra - extraction of single files from 3D data and creation of 3D data from single files - principal component analysis (PCA) of 3D data; calculation of loadings and factors 			
6	O/MAP+	1PC		
	OPUS/MAP, software package for control of x-y sample stages.			
7	O/VID+	1PC		
	<p>OPUS/VIDEO, Software package for video-interactive measurements:</p> <ul style="list-style-type: none"> - control for data acquisition of IR/Raman spectra and visible/video images - control of IR/Raman microscope functionality - automated mapping of irregular, line and rectangular grids - live view of spectra before measurement - acquisition and assembling of overview images - data storage of spectra, IR/Raman images, visible images and annotations within one file 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	Re-validation is excluded. Details: see contract text. Extensions required for additional measurement options. Price per contract year			

Training Courses

15	S710-US	1PC		
	Bruker Optics Training course for the FTIR (FIR, MIR, NIR, FT Raman) Dispersive Raman and Minispec product lines. These training courses include hardware, software and applications training. Training courses locations can vary between our Houston, Texas facility and our Billerica, Massachusetts Facility. Per person, Travel and hotel expenses are NOT included in the listed price. Dates and times for these training course can be found on our website: http://www.bruker.com/service/education-training/training-courses/vibrational-optical-spectroscopy/north-america.html or by calling 1-888-4BRUKER			

Additional components

16	FTIR_ACC BIO-RAD ATR/IR ID EXPERT	1PC		
	Provides access to over 220,000 compounds in the Bio-Rad Sadtler Database with software for search, mixture analysis, functional group analysis and multi-component analysis. Includes transmission, reflection and ATR spectra of general and forensic relevance. Includes the Bio-Rad Automobile Paint Chip analysis. Annual license: purchase up to 3 units for additional (up to 3) years of use with the system, then renew annually thereafter.			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	Validation software			
8	O/VAL OPUS/VALIDATION Consisting of: - 21 CFR Part 11 compliance - access to validated OPUS functions - OPUS/VALIDATION user manual	1PC	2,598.60	2,598.60
	Data Systems			
9	CS81/25+ Data system, Ultra Slim desktop "Intel" Core 2 Duo processor, >3GHz, 4GB RAM 250GB HDU or better, 8xDVD/Lightscribe Drive, 21.5" TFT display. Ports: USB 2.0 (10x), PS/2 (2), RJ-45 Network (1 + 1 USB-Ethernet Adapter), VGA, DisplayPort, line in, line out, mini PCIe. Expansion: only for one m-PCIe card, MXM(graphics) and m-SATA(disk). Operating System: Windows 7 Professional or better. (only available with order of spectrometer)	1PC	1,732.40	1,732.40
	Services with orders			
10	S950+ Installation on-site included in the price of the system (including travel charges, inland) Note: interfacing to a customer's network requires an additional po	1PC	0.00	
	Services and Support			
11	S881 Warranty Extension to 10 Years for Interferometer Covers replacement of defective parts of the scanning mechanism of the interferometer. The warranty starts with delivery of the spectrometer. Valid for TENSOR, VERTEX spectrometer series and MultiRAM.	1PC	0.00	
12	S881-L Warranty Extension to 10 Years for laser Covers parts in case of laser defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	
13	S881-S Warranty Extension to 5 Years for MIR source Covers material costs in case of source defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	
14	S9200/LM Full service contract for LUMOS FTIR microscope Includes one preventive maintenance service per year, service, repair, spares and travel costs (inland).	2PC	10,394.40	20,788.80



Item Material/Description

OPTIONAL ACCESSORIES

NOT included in the total listed above.

Objectives		
17	S777/LM- Remove this selection from the quote to include the motorized ATR crystal	1 PC
18	A775/LM Motorized polarizer and analyzer For LUMOS with high accurate positioning - includes optomechanical and electronic implementation - polarizer and analyzer are software controlled This option cannot be upgraded after installation	1 PC
Bruker Libraries		
19	BEG BRUKER Explosives - Library 42 Spectra of explosives and precursors (requires OPUS version 4 or higher)	1 PC
20	1019673 BRUKER 10,000 plus spectra library with 10,000 entries of chemical, pharmaceutical, polymer and forensic relevant substances. The database includes transmission and ATR spectra of solids, fibres and liquids. (gas spectra aren't included!)	1 PC
21	I24030 Natural Fibers Library recorded with the Helios-ATR-accessory	1 PC
22	I26933 BRUKER Synthetic Fibers ATR-Library about 333 spectra	1 PC
S.T.Japan Libraries		
23	1025057 ATR-FTIR Forensics Library (ATR-LIB-FORENSICS) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher	1 PC



Item	Material/Description
24	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014
25	1009302 White Powders Spectra Database 697 spectra, S.T. Japan, PN:30023
26	1009303 Explosives Spectra Database 405 spectra, S.T. Japan, PN:30103

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- 3.1.1.2 Integrated FTIR sealed and desiccated
 - Permanently aligned interferometer with a 10-year warranty, KBR/Ge optics
 - 7800-450 cm⁻¹ spectral range; PC-controlled, automatically selectable range
 - User-replaceable high-intensity source & desiccant
 - Permanent laser for frequency calibration; 10-year warranty
 - High speed 24-bit ADC
 - Automated transmission/reflection objectives and automated condenser
 - Optional ATR objective (better than the low resolution crystal specified in the bid)
 - Automated full-view aperture
 - Automated, PC controlled LEDs for Reflection, Transmssion & Aperture illumination
 - Fully integrated pressure sensor in the objective (not the stage as specified in the solicitation) providing higher precision
 - Purge control included with regulator
 - Ultra high resolution digital CCD color video camera; higher quality than in solicitation: CMOS; 2560 x 1920; QSXGA; 5 Megapixel; ½ inch chip
 - 8X objectives with optical zoom for viewing; achieves 3 micron spatial resolution; nearest competitor achieves 8 micron spatial resolution or worse
 - English language
 - All gold coated mirrors
 - FTIR training for personnel on-site at installation
 - FTIR advanced microscopy training course for 2 people either off-site or on-line
 - Motorized high precision (0.1 micron) stage
 - Motorized joystick
 - FTIR background and standards plate

Full 1 year warranty on all parts
10-year warranty on interferometer and laser
5-year warranty on source
All warranties are for parts, labor, travel and service time

3.1.2. PC optimized for our microscope

3.1.3. Bio-Rad Automotive Paint Chip Library with 1,990 spectra

3.1.4. OPUS software + 3 different database options:

- **OPTION 1:** Over 220,000 compounds are accessible with integrated software for searching, mixture analysis & multi-component library searching over the entire BioRad database
Requires an annual, low-cost subscription; purchase up to 3 years at one time
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- **OPTION :** Choose the databases that you want of forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching

3.1.5 & 6. Purchase as many years of support/maintenance as you like; parts, labor and travel are free-of-charge and 1 PM visit per year is included!



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER

DPS1425

PAGE

1

ADDRESS CORRESPONDENCE TO ATTENTION OF

TARA LYLE
304-558-2544

*A15111245 978-439-9899

BRUKER OPTICS INC
19 FORTUNE DRIVE

BILLERICA MA 01821

V
E
N
D
O
R

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

S
H
I
P
T
O

DATE PRINTED

04/24/2014

BID OPENING DATE: 05/21/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>THE WEST VIRGINIA STATE PURCHASING DIVISION ON BEHALF OF THE WEST VIRGINIA STATE POLICE, IS SOLICITING BIDS FOR A ONE-TIME PURCHASE OF AN INTEGRATED INFRARED MICROSCOPE AND OTHER RELATED ACCESSORIES, PER THE ATTACHED DOCUMENTATION.</p> <p>ATTACHMENTS INCLUDE:</p> <ol style="list-style-type: none">1. INSTRUCTIONS TO VENDORS SUBMITTING BIDS2. GENERAL TERMS AND CONDITIONS3. DPS1425 SPECIFICATIONS4. CERTIFICATION AND SIGNATURE PAGE5. PURCHASING AFFIDAVIT6. VENDOR PREFERENCE CERTIFICATE <p>THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.</p>						
0001	1	EA		490-58 INTEGRATED INFRARED MICROSCOPE	\$498,823.83	\$85,512.97

SIGNATURE

TELEPHONE

DATE

TITLE

FEIN

ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER

DPS1425

PAGE

2

ADDRESS CORRESPONDENCE TO ATTENTION OF

TARA LYLE
304-558-2544

*A15111245 978-439-9899

BRUKER OPTICS INC
19 FORTUNE DRIVE

BILLERICA MA 01821

V
E
N
D
O
R

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

S
H
I
P
T
O

DATE PRINTED

04/24/2014

BID OPENING DATE: 05/21/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0002	1	EA		205-43	\$1,732.40	\$1,524.51
				COMPUTER WORKSTATION		
0003	1	EA		205-43	\$4,132.20	\$3,636.34
				AUTOMOTIVE PAINT CHIP LIBRARY		
0004	1	EA		939-22	\$10,394.40	\$9,147.07
				2ND YEAR SUPPORT/MAINTENANCE		
0005	1	EA		939-22	\$10,394.40	\$9,147.07
				3RD YEAR SUPPORT/MAINTENANCE		
***** THIS IS THE END OF RFQ DPS1425 ***** TOTAL:						\$95,344.48
+ software & 220,000 compound database						+\$5,213.21
TOTAL						\$100,557.69
SIGNATURE						
TELEPHONE				DATE		
TITLE		FEIN		ADDRESS CHANGES TO BE NOTED ABOVE		

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

000024

DPS 1425 Pricing Page

Item #	Description	Quantity	Unit Price	Extended Price
3.1.1	Integrated Infrared Microscope, Nicolet IN10 or equal	1 ea	\$ \$98,823.83	\$85,512.97
3.1.2	Workstation, Dell Optiplex or equal	1 ea	\$ \$1,732.40	\$1,524.51
3.1.3	Automotive Paint Chsl Library, Biorad or equal	1 ea	\$ \$4,132.20	\$3,636.34
3.1.4	OMNIC Spectra iS50 Edition or Equal	1 ea	\$ \$5,924.10	\$5,213.21 (220,000+ Spectra)
3.1.5	Year Two support/maintenance	1 yr	\$ \$10,394.40	\$9,147.07
3.1.6	Year Three support/maintenance	1 yr	\$ \$10,394.40	\$9,147.07
Failure to use this form may result in disqualification.			Total Cost:	\$ \$100,557.69 + free shipping

Bidder / Vendor Information:

Name: _____	Name: Bruker Optics, Inc
Address: _____	Address: 19 Fortune Dr.
	Billerica, MA 01821
Phone #: _____	Phone: 978-439-9899
Email Address: _____	Email: dda@brukeroptics.com

Contact Coordinator Information:

Name: _____	Name: Diane Allen/Bruker Optics, Inc
Address: _____	Address: 2623 Caulfield Ct
	Frederick, MD 21701
Phone #: _____	Phone: 301-360-9868 [Office]
	847-687-1495 [Mobile]
Email Address: _____	Email: dda@brukeroptics.com

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DPS1425

000000

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

<input checked="" type="checkbox"/> Addendum No. 1	<input type="checkbox"/> Addendum No. 6
<input type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input type="checkbox"/> Addendum No. 4	<input type="checkbox"/> Addendum No. 9
<input type="checkbox"/> Addendum No. 5	<input type="checkbox"/> Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Bruker Optics

Company

Deane Johnson

Authorized Signature

5-28-2014

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Bruker Optics
 (Company)
Diane D. Allen
 (Authorized Signature)

Diane D. Allen, Regional Sales Manager
 (Representative Name, Title)

301-360-9868 // 978-663-9177
 (Phone Number) (Fax Number)

5-27-2014
 (Date)

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form of business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Brucker Optics

Authorized Signature: Doree D. [Signature]

Date: 5-28-2014

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ____ day of _____, 20__.

My Commission expires _____, 20__.

AFFIX SEAL HERE

NOTARY PUBLIC _____

Purchasing Affidavit (Revised 07/01/2012)

I will fax a notarized copy
before the bid opening tomorrow.

[Signature]

Bruker Option 1:



Sold To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Ship To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Quotation no.	1220024491	Your Customer No.	1087468
Document date	05/28/2014	Contact Person	Diane Allen
Valid until	07/27/2014	Telephone	(978) 439-9899
Delivery time after		Tel. ext.	5458
Receipt of order	approx.30 days	Email	diane.allen@brukeroptics.com

Includes 1 Full Year of Warranty on all parts, service, travel & maintenance and the same protection plus 1 annual PM service visit for 2 additional years.

Includes Additional Free Extended Warranties for Low Cost-of-Ownership:

- 10-year warranty on our maintenance-free Rocksolid (TM) interferometer!
- 10-year warranty on our solid-state laser!
- 5-year warranty on our Globar Source!
- Full 1-year warranty on all other items!

* Warranties are for parts and labor!

FOB Destination/Shipping at no charge to WVSP -- supercedes any other shipping description in this document.

Item	Material/Description	Quantity	Unit price USD	Amount USD
	Spectrometer			
1	LUMOS Standalone FT-IR microscope For routine and advanced applications with full automation. All components of the LUMOS are motorized. The LUMOS is a very compact FT-IR microscope (width x height x depth: 30 x 64 x 52cm) including a FT-IR spectrometer with a permanently aligned RockSolid interferometer ensuring excellent sensitivity and wave length stability. Beside transmission and reflection, the LUMOS is also prepared for fully automated measurements in attenuated total reflection (ATR) using a motorized ATR crystal. Automation includes sample, background and calibration measurements. The LUMOS can be used for automated single point measurements but also for automated mapping and imaging. The very intuitive	1PC	86,620.00	86,620.00

Bruker Optics Inc.
19 Fortune Drive
Billerica, MA 01821
Phone: 978-439-9899
www.brukeroptics.com



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>OPUS software guides the user step by step through data acquisition and includes many features for effective data processing, data evaluation and data visualization. All essential optical and electronic components of the LUMOS are monitored continuously to provide highest sensitivity during full life time. In case of a component failure or when a test for OQ/PQ has expired, the operator is notified immediately. The LUMOS utilizes a diode laser and a RockSolid interferometer with a life time of over 10 years and an infrared light source with a life time of over 5 years. The only consumable for the LUMOS is the liquid nitrogen for the cooling of the sensitive MCT detector. To facilitate the usage of the LUMOS even in countries with high humidity, all included IR-transparent window material and the beam splitter are made from ZnSe which is fully inert against water vapor.</p> <p>Includes:</p> <ul style="list-style-type: none"> - Standalone FTIR spectrometer microscope with permanently aligned RockSolid interferometer (ZnSe-BMS; gold coated mirrors; life time >10 years) - Spectral resolution: better than 2cm⁻¹; option: better than 0.8cm⁻¹ - Spectral range: 7,000-650cm⁻¹ - Sealed and desiccated housing with ZnSe windows to be resistant against humidity; desiccant reusable; prepared for purge with dried air (not required) - Instrument tests for operational and performance qualification (OQ; PQ); including internal calibration procedures for spectral axes (polystyrene standard) - Permanent monitoring of all essential spectrometer components, system performance and humidity - Diode laser (diode, life time >10 years) - SiC glowbar source with long life time (>5 years) - Mid band MCT detector D316015/BP (7,000-650cm⁻¹; liquid N₂ cooled, including preamplifier; True 24 bit ADC; Permavac) - IR and Vis illumination and focusing optics for transmission and reflection - Independent white light LED illumination for Vis in transmission and reflection with Köhler apertures for contrast enhancement - 8x Cassegrain objective for measurements in transmission, reflection and attenuated total reflection (ATR); NA (0.4-0.6), working distance (30mm); equipped with a motorized ATR crystal for automated ATR measurements with pressure control - Automated change of numerical aperture (NA) between IR (0.6) and Vis (0.4) mode - Automated change from IR to Vis mode. Permanent view of sample with positioned aperture even during IR data acquisition - Motorized condenser with automated adjustment for transmission (autofocus) and automated parking for reflection and ATR. - Motorized z drive for xy-stage - Motorized transparent knife-edge aperture with precise positioning; permanent view of aperture even during data collection - Autofocus; can be activated by one click touch or used automatically before each measurement - Motorized xy sampling stage; adjustment range: 75x50mm; adjustment accuracy (=smallest step size): 0.1µm; repeatability: <1µm. Allows fully automated mapping and imaging measurements in all measurement modes. - Insertion plate for motorized stage to perform automated background 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	measurements in transmission, reflection and ATR and to perform automated OQ/PQ tests - Fast CMOS camera; 2560 x 1920; QXGA; 5 MegaPixel; 1/2"; large field of view: 1.5 x 1.2 mm, digital 4x zoom - Joystick - OPUS/ Video software with a special GUI guiding the operator through the sample inspection and data acquisition procedure - OPUS/3D for data processing, evaluation and visualization - OPUS/MAP software for control of the motorized xy-stage - Internal validation unit for automated OQ/PQ testing with reference standards			
	Spectral Range Extension			
2	W304/LM Spectral range extension to 7,800-450cm ⁻¹ includes KBr optics (beam splitter and windows) in lieu of ZnSe and broad band MCT detector D315015/BP in lieu of mid band MCT D316015/BP only available for new LUMOS; option can not be upgraded on existing LUMOS	1PC	1,448.40	1,448.40
	Objectives			
3	S777/LM- without motorized ATR crystal price reduction	1PC	-4,842.20	-4,842.20
	OPUS Spectroscopy Software			
4	O/IR+ OPUS/IR, FT-IR Spectroscopy Software Package OPUS is an integrated spectroscopy software for laboratory and process control. OPUS is easy to use: - Configurable user interface and access to executable functions - Automatic consistency-test of measurement parameters - Multi Tasking: Measurement and data manipulation/evaluation at the same time - Automated atmospheric correction for water vapor and CO ₂ in MIR without the need for reference spectra OPUS delivers reliable results in a short time: - Single and repeated measurements, auto sampler support - Many interactive functions for comfortable data processing and evaluation, e.g. - Normalization, calculate derivative and average spectra, spectra subtraction - Spectrum calculator - Curve fit - Peak Pick - Spectra interpretation tool - Quick Compare spectra - Search spectra in a library, create your own libraries - Free starter library	1PC	0.00	



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<ul style="list-style-type: none"> - Analyze peak areas and heights, quantitative analysis (Lambert-Beer's Law) - Automated multi step evaluation of spectra (MultiEvaluation) - Predefined print layouts, customizable print layouts - Conversion of files to different file formats (eg JCAMP) - Easy data export to other programs <p>OPUS is a validated software and supports the validation of the spectrometer:</p> <ul style="list-style-type: none"> - Automated OQ and PQ testing - Permanent instrument status indicator, online monitoring of system performance <p>OPUS is compliant to cGMP/GLP:</p> <ul style="list-style-type: none"> - Multi level user management, log-in with user name and password - Audit trail (history log function) - All data, incl. manipulation and evaluation results, stored in ONE file - Electronic signature of spectra and methods <p>OPUS supports user during daily routine work:</p> <ul style="list-style-type: none"> - Run, create and edit macros and VB scripts - Automated execution of repeated actions via calendar - Lab journal functionality - Online help - Multimedia FT-IR tutorial <p>This OPUS software package is included in the standard delivery of the spectrometer system. Spectra viewer software is available free of charge.</p>			
5	O/3D+	1PC	0.00	
	<p>OPUS/3D, Software package for 3D data processing, evaluation and visualization:</p> <ul style="list-style-type: none"> - broad variety of 2D and 3D views for 3D and 4D data, like: display 3D, false colour and contour plots, traces in variable size - IR and Raman images can be displayed in 2D and 3D on top of or next to the visible/video image of the sample - calculation and presentation of RGB images - correlation of 3D data with single component spectra - extraction of single files from 3D data and creation of 3D data from single files - principal component analysis (PCA) of 3D data; calculation of loadings and factors 			
6	O/MAP+	1PC	0.00	
	OPUS/MAP, software package for control of x-y sample stages.			
7	O/VID+	1PC	0.00	
	<p>OPUS/VIDEO, Software package for video-interactive measurements:</p> <ul style="list-style-type: none"> - control for data acquisition of IR/Raman spectra and visible/video images - control of IR/Raman microscope functionality - automated mapping of irregular, line and rectangular grids - live view of spectra before measurement - acquisition and assembling of overview images - data storage of spectra, IR/Raman images, visible images and annotations within one file 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	Validation software			
8	O/VAL OPUS/VALIDATION Consisting of: - 21 CFR Part 11 compliance - access to validated OPUS functions - OPUS/VALIDATION user manual	1PC	2,598.60	2,598.60
	Data Systems			
9	CS81/25+ Data system, Ultra Slim desktop "Intel" Core 2 Duo processor, >3GHz, 4GB RAM 250GB HDU or better, 8xDVD/Lightscribe Drive, 21.5" TFT display. Ports: USB 2.0 (10x), PS/2 (2), RJ-45 Network (1 + 1 USB-Ethernet Adapter), VGA, DisplayPort, line in, line out, mini PCIe. Expansion: only for one m-PCIe card, MXM(graphics) and m-SATA(disk). Operating System: Windows 7 Professional or better. (only available with order of spectrometer)	1PC	1,732.40	1,732.40
	Services with orders			
10	S950+ Installation on-site included in the price of the system (including travel charges, inland) Note: interfacing to a customer's network requires an additional po	1PC	0.00	
	Services and Support			
11	S881 Warranty Extension to 10 Years for Interferometer Covers replacement of defective parts of the scanning mechanism of the interferometer. The warranty starts with delivery of the spectrometer. Valid for TENSOR, VERTEX spectrometer series and MultiRAM.	1PC	0.00	
12	S881-L Warranty Extension to 10 Years for laser Covers parts in case of laser defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	
13	S881-S Warranty Extension to 5 Years for MIR source Covers material costs in case of source defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	
14	S9200/LM Full service contract for LUMOS FTIR microscope Includes one preventive maintenance service per year, service, repair, spares and travel costs (inland).	2PC	10,394.40	20,788.80



Item	Material/Description	Quantity	Unit price USD	Amount USD
	Re-validation is excluded. Details: see contract text. Extensions required for additional measurement options. Price per contract year			

Training Courses

15	S710-US	1PC	1,650.00	1,650.00
	Bruker Optics Training course for the FTIR (FIR, MIR, NIR, FT Raman) Dispersive Raman and Minispec product lines. These training courses include hardware, software and applications training. Training courses locations can vary between our Houston, Texas facility and our Billerica, Massachusetts Facility. Per person, Travel and hotel expenses are NOT included in the listed price. Dates and times for these training course can be found on our website: http://www.bruker.com/service/education-training/training-courses/vibrational-optical-spectroscopy/north-america.html or by calling 1-888-4BRUKER			

Additional components

16	FTIR_ACC	1PC	5,924.10	5,924.10
	BIO-RAD ATR/IR ID EXPERT			
	Provides access to over 220,000 compounds in the Bio-Rad Sadtler Database with software for search, mixture analysis, functional group analysis and multi-component analysis. Includes transmission, reflection and ATR spectra of general and forensic relevance. Includes the Bio-Rad Automobile Paint Chip analysis.			

Annual license: purchase up to 3 units for additional (up to 3) years of use with the system, then renew annually thereafter.

Total price net		115,920.10
Training Course Discount (Value)		-1,650.00
Percentage Discount	-12.00%	-13,712.41
Total price incl. discount net		100,557.69



Item	Material/Description	Quantity	Amount USD
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OPTIONAL ACCESSORIES [ALL CARRY A 12% DISCOUNT IF SELECTED]:

Prices are NOT included in the total listed above.

Objectives

17	S777/LM- Remove this selection from the quote to include the motorized ATR crystal [new price will reflect a 12% discount on this item]	1 PC	-4,842.20
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Polarizers

18	A775/LM Motorized polarizer and analyzer For LUMOS with high accurate positioning - includes optomechanical and electronic implementation - polarizer and analyzer are software controlled This option cannot be upgraded after installation	1 PC	2,612.80
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Bruker Libraries

19	BEG BRUKER Explosives - Library 42 Spectra of explosives and precursors (requires OPUS version 4 or higher)	1 PC	985.48
20	1019673 BRUKER 10,000 plus spectra library with 10,000 entries of chemical, pharmaceutical, polymer and forensic relevant substances. The database includes transmission and ATR spectra of solids, fibres and liquids. (gas spectra aren't included!)	1 PC	2,612.80
21	I24030 Natural Fibers Library recorded with the Helios-ATR-accessory	1 PC	717.10
22	I26933 BRUKER Synthetic Fibers ATR-Library about 333 spectra	1 PC	724.20

S.T.Japan Libraries

23	1025057 ATR-FTIR Forensics Library (ATR-LIB-FORENSICS) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher	1 PC	4,927.40
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Item	Material/Description	Quantity	Amount USD
24	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014	1 PC	2,130.00
25	1009302 White Powders Spectra Database 697 spectra, S.T. Japan, PN:30023	1 PC	1,300.00
26	1009303 Explosives Spectra Database 405 spectra, S.T. Japan, PN:30103	1 PC	1,200.00

General Terms and Conditions

A) GENERAL CONDITIONS

- 1) The terms and conditions contained herein constitute the sole terms and conditions governing the purchase of any products or services by the customer identified on the face hereof ("Customer") from Bruker Optics Inc. ("BOPT"). Customer may acknowledge its acceptance of these terms and conditions by returning a signed copy of the quotation, placing an order with BOPT or by its receipt of any products from BOPT. Any terms and conditions different from or in addition to those contained herein, including any contained in Customer's purchase order or in any other documents furnished by Customer, shall be of no force or effect in connection with the sale of any products by BOPT to Customer and BOPT hereby objects to and rejects in their entirety all such terms and conditions, as BOPT's agreement to sell any products to Customer is expressly made conditional upon the use of these terms and conditions.
- 2) The rights and obligations of the parties shall be governed in all respects by the laws of the Commonwealth of Massachusetts and the parties shall submit themselves to the jurisdiction thereof.
- 3) Purchase orders are subject to written acceptance by BOPT.

B) PRICE AND QUOTATION

- 1) All quotations are firm for a period of forty five (45) days, unless otherwise specified in the quotation.
- 2) All prices are FOB Billerica, Massachusetts. Responsibility passes to Customer upon delivery to the transportation company and risk of damage or loss following such delivery shall be Customer's. Title to all purchased items passes to Customer upon delivery to the transportation company.
- 3) Prices quoted do not include city, state or federal sales or similar taxes and duties. Customer is responsible for all such taxes and duties.
- 4) This quotation is only valid when the system is purchased and used in the USA, Canada or Puerto Rico. This quotation becomes null and void if Customer ships the system outside the USA, Canada or Puerto Rico.

C) DELIVERY AND SHIPMENT

- 1) Delivery time is computed from the date of acknowledgement by BOPT of Customer's written order.
- 2) BOPT shall not be liable for delivery delays due to circumstances beyond its control, including, but not limited to, fire, flood, war, labor disputes, accidents or delay of carriers, subcontractors or suppliers.

D) TERMS AND PAYMENT

- 1) 30% due on order, remainder due within 30 days after the date thereof.
- 2) Orders shipped and invoiced in separate parts shall be due upon receipt of each such part.
- 3) Customer hereby grants BOPT a purchase money security interest in all items purchased hereunder. In the event Customer fails to make payment for any item purchased hereunder within the required time period, BOPT shall have the right to exercise all remedies of a secured party under the laws of the Commonwealth of Massachusetts.

E) EXPORT COMPLIANCE

Customer understands that exports and re-exports of BOPT products and any related software, technical data, service, or technical assistance (individually, an "Item" and, collectively, the "Items") are subject to U.S. and foreign trade controls, customs and economic sanctions laws, regulations, rules and orders (collectively, "Export Control Laws"). In addition to any other remedy it may have, BOPT may suspend and/or cancel the export, delivery, installation, and/or any maintenance or repair service of any Item if (a) BOPT has not received all export-related documentation requested by BOPT, including end-user certificates, (b) BOPT has not received the governmental approvals that BOPT deems to be required, or (c) BOPT believes that such activity may violate any Export Control Laws or BOPT's own compliance policies. Customer shall only use the Items for non-military, peaceful purposes. Customer shall not export, re-export or otherwise transfer or provide any Item in contravention of any Export Control Law or any end-user certificate provided by Customer, including to an embargoed or otherwise sanctioned country. Customer must notify BOPT before providing any technical data to BOPT that is controlled under any Export Control Law. BOPT will not be liable to Customer for any loss or expense if Customer fails to comply with any Export Control Law. Customer shall indemnify BOPT for all losses, costs, claims, damages and expenses (including attorney fees and expenses) arising from Customer's violation or alleged violation of any Export Control Law.

F) INSTALLATION

Systems, parts and accessories DO NOT include installation unless otherwise provided in this quotation. Acceptance shall occur upon the demonstration of the compliance of the system with its specifications. In the event Customer has not accepted a system within ninety (90) days after receipt of the system by Customer, through no fault on the part of BOPT, the system shall be deemed to be accepted by Customer as of the expiration of such ninety (90) days.

G) WARRANTY

All standard products manufactured and sold by BOPT carry a limited warranty. Systems are warranted for one year to be free of defects in material and workmanship. Services, parts, and accessories purchased separately from systems are warranted for ninety (90) days. The applicable warranty period for systems begins upon system acceptance, but not later than three (3) months after delivery. The applicable warranty period for services, parts and accessories (other than those purchased with a complete system) begins upon delivery.

This warranty is subject to the following limitations:

- 1) This warranty applies only to defects in material and workmanship does not include such items as routine maintenance, adjustments, or recalibration.
- 2) For items supplied but not manufactured by BOPT, the warranty of the manufacturer will be transferred to the Customer.
- 3) Any loss, damage, and/or instrument malfunction relating in any way to the following is not covered:
 - a) Shipping or storage;
 - b) Accident, abuse, alteration, misuse, or neglect;
 - c) Breakage or abuse of parts;
 - d) Operation other than in accordance with correct operating procedures;
 - e) Tampering with the system;
 - f) Lack of routine care and maintenance;
 - g) Inadequate utility service; or
 - h) Chemical action or contamination.
- 4) In-warranty repaired or replacement parts are covered by warranty only for the remaining unexpired portion of the original warranty period.

All claims under warranty must be made promptly to BOPT within the warranty period. Such claims should include the product type and serial numbers, and a full description of the circumstances giving rise to the claim. BOPT reserves the right to determine whether to make repair under valid warranty claims by (a) sending a field service engineer to the site, or (b) having Customer send the defective item to an authorized facility. Any item sent to an authorized facility for examination shall be sent prepaid using a BOPT accepted method of transportation at the expense of Customer. Customer shall be responsible for all damage resulting from improper packing or handling, and for loss in transit.

The foregoing constitutes the sole warranty made by BOPT, express or implied, and states the sole liability of BOPT and the sole remedy of Customer for breach of warranty. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY EXCLUDED.

H) LIMITATION OF LIABILITY

Reasonable care must be used by Customer to avoid hazards. BOPT expressly disclaims responsibility for loss or damage caused by use of its products other than in accordance with proper operating procedures. IN NO EVENT SHALL BOPT BE LIABLE FOR INCIDENTAL, SPECIAL, INDIRECT, CONSEQUENTIAL OR RESULTING LOSS OR DAMAGE OF ANY KIND, HOWSOEVER CAUSED. BOPT'S LIABILITY FOR DAMAGES SHALL NOT EXCEED PAYMENT, IF ANY RECEIVED BY BOPT FOR THE UNIT OR PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED, AS THE CASE MAY BE, WHICH IS THE SUBJECT OF THE CLAIM OR DISPUTE.

Additional Information About BOPT

DUNS: 88-362-9271

TIN: 04-3275192

CAGE CODE: 1FFD9

BOPT holds a valid registration in ORCA

BOPT holds a valid registration in the Central Contract Registration (CCR)

Bruker Optics Response to WVSP Solicitation DPS1425

Option 2

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics Inc. Response to WVSP Solicitation # DPS1425

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics proposal is for the LUMOS standalone/integrated FTIR microscope.
There are three optional proposals which vary in the selection of library databases.
Each proposal contains the following:

3.1.1.1 Fully automated FTIR microscope with validation (21CFR11 compliant) and simultaneous viewing and collection

3.1.1.2 Integrated FTIR sealed and desiccated

Permanently aligned interferometer with a 10-year warranty, KBR/Ge optics

7800-450 cm⁻¹ spectral range; PC-controlled, automatically selectable range

User-replaceable high-intensity source & desiccant

Permanent laser for frequency calibration; 10-year warranty

High speed 24-bit ADC

Automated transmission/reflection objectives and automated condenser

Optional ATR objective (better than the low resolution crystal specified in the bid)

Automated full-view aperture

Automated, PC controlled LEDs for Reflection, Transmssion & Aperture illumination

Fully integrated pressure sensor in the objective (not the stage as specified in the solicitation) providing higher precision

Purge control included with regulator

Ultra high resolution digital CCD color video camera; higher quality than in solicitation: CMOS; 2560 x 1920; QSXGA; 5 Megapixel; ½ inch chip

8X objectives with optical zoom for viewing; achieves 3 micron spatial resolution; nearest competitor achieves 8 micron spatial resolution or worse

English language

All gold coated mirrors

FTIR training for personnel on-site at installation

FTIR advanced microscopy training course for 2 people either off-site or on-line

Motorized high precision (0.1 micron) stage

Motorized joystick

FTIR background and standards plate

Full 1 year warranty on all parts
10-year warranty on interferometer and laser
5-year warranty on source
All warranties are for parts, labor, travel and service time

3.1.2. PC optimized for our microscope

3.1.3. Bio-Rad Automotive Paint Chip Library with 1,990 spectra

3.1.4. OPUS software + 3 different database options:

- **OPTION 1:** Over 220,000 compounds are accessible with integrated software for searching, mixture analysis & multi-component library searching over the entire BioRad database
Requires an annual, low-cost subscription; purchase up to 3 years at one time
- **OPTION 2:** Over 30,000 forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching
- **OPTION :** Choose the databases that you want of forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching

3.1.5 & 6. Purchase as many years of support/maintenance as you like; parts, labor and travel are free-of-charge and 1 PM visit per year is included!

Bruker Option 2:

Sold To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Ship To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Quotation no.	1220024498	Your Customer No.	1087468
Document date	05/28/2014	Contact Person	Diane Allen
Valid until	07/27/2014	Telephone	(978) 439-9899
Delivery time after		Tel. ext.	5458
Receipt of order	approx. 30 days	Email	diane.allen@brukeroptics.com

Includes 1 Full Year of Warranty on all parts, service, travel & maintenance and the same protection plus 1 annual PM service visit for 2 additional years.

Includes Additional Free Extended Warranties for Low Cost-of-Ownership:

- 10-year warranty on our maintenance-free Rocksolid (TM) interferometer!
- 10-year warranty on our solid-state laser!
- 5-year warranty on our Globar Source!
- Full 1-year warranty on all other items!

* Warranties are for parts and labor!

FOB Destination/Shipping at no charge to WVSP -- supercedes any other shipping description in this document.

Item	Material/Description	Quantity	Unit price USD	Amount USD
1	Spectrometer LUMOS Standalone FT-IR microscope For routine and advanced applications with full automation. All components of the LUMOS are motorized. The LUMOS is a very compact FT-IR microscope (width x height x depth: 30 x 64 x 52cm) including a FT-IR spectrometer with a permanently aligned RockSolid interferometer ensuring excellent sensitivity and wave length stability. Beside transmission and reflection, the LUMOS is also prepared for fully automated measurements in attenuated total reflection (ATR) using a motorized ATR crystal. Automation includes sample, background and calibration measurements. The LUMOS can be used for automated single point measurements but also for automated mapping and imaging. The very intuitive	1PC		

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19 Fortune Drive
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www.brukeroptics.com



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>OPUS software guides the user step by step through data acquisition and includes many features for effective data processing, data evaluation and data visualization. All essential optical and electronic components of the LUMOS are monitored continuously to provide highest sensitivity during full life time. In case of a component failure or when a test for OQ/PQ has expired, the operator is notified immediately. The LUMOS utilizes a diode laser and a RockSolid interferometer with a life time of over 10 years and an infrared light source with a life time of over 5 years. The only consumable for the LUMOS is the liquid nitrogen for the cooling of the sensitive MCT detector. To facilitate the usage of the LUMOS even in countries with high humidity, all included IR-transparent window material and the beam splitter are made from ZnSe which is fully inert against water vapor.</p> <p>Includes:</p> <ul style="list-style-type: none"> - Standalone FTIR spectrometer microscope with permanently aligned RockSolid interferometer (ZnSe-BMS; gold coated mirrors; life time >10 years) - Spectral resolution: better than 2cm⁻¹; option: better than 0.8cm⁻¹ - Spectral range: 7,000-650cm⁻¹ - Sealed and desiccated housing with ZnSe windows to be resistant against humidity; desiccant reusable; prepared for purge with dried air (not required) - Instrument tests for operational and performance qualification (OQ; PQ); including internal calibration procedures for spectral axes (polystyrene standard) - Permanent monitoring of all essential spectrometer components, system performance and humidity - Diode laser (diode, life time >10 years) - SiC glowbar source with long life time (>5 years) - Mid band MCT detector D316015/BP (7,000-650cm⁻¹; liquid N₂ cooled, including preamplifier; True 24 bit ADC; Permavac) - IR and Vis illumination and focusing optics for transmission and reflection - Independent white light LED illumination for Vis in transmission and reflection with Köhler apertures for contrast enhancement - 8x Cassegrain objective for measurements in transmission, reflection and attenuated total reflection (ATR); NA (0.4-0.6), working distance (30mm); equipped with a motorized ATR crystal for automated ATR measurements with pressure control - Automated change of numerical aperture (NA) between IR (0.6) and Vis (0.4) mode - Automated change from IR to Vis mode. Permanent view of sample with positioned aperture even during IR data acquisition - Motorized condenser with automated adjustment for transmission (autofocus) and automated parking for reflection and ATR. - Motorized z drive for xy-stage - Motorized transparent knife-edge aperture with precise positioning; permanent view of aperture even during data collection - Autofocus; can be activated by one click touch or used automatically before each measurement - Motorized xy sampling stage; adjustment range: 75x50mm; adjustment accuracy (=smallest step size): 0.1µm; repeatability: <1µm. Allows fully automated mapping and imaging measurements in all measurement modes. - Insertion plate for motorized stage to perform automated background 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>measurements in transmission, reflection and ATR and to perform automated OQ/PQ tests</p> <ul style="list-style-type: none"> - Fast CMOS camera; 2560 x 1920; QSXGA; 5 MegaPixel; 1/2"; large field of view: 1.5 x 1.2 mm, digital 4x zoom - Joystick - OPUS/ Video software with a special GUI guiding the operator through the sample inspection and data acquisition procedure - OPUS/3D for data processing, evaluation and visualization - OPUS/MAP software for control of the motorized xy-stage - Internal validation unit for automated OQ/PQ testing with reference standards 			
	Spectral Range Extension			
2	<p>W304/LM</p> <p>Spectral range extension to 7,800-450cm-1 includes KBr optics (beam splitter and windows) in lieu of ZnSe and broad band MCT detector D315015/BP in lieu of mid band MCT D316015/BP only available for new LUMOS; option can not be upgraded on existing LUMOS</p>	1PC		
	Objectives			
3	<p>S777/LM-</p> <p>without motorized ATR crystal</p> <p>price reduction</p>	1PC		
	OPUS Spectroscopy Software			
4	<p>O/IR+</p> <p>OPUS/IR, FT-IR Spectroscopy Software Package</p> <p>OPUS is an integrated spectroscopy software for laboratory and process control.</p> <p>OPUS is easy to use:</p> <ul style="list-style-type: none"> - Configurable user interface and access to executable functions - Automatic consistency-test of measurement parameters - Multi Tasking: Measurement and data manipulation/evaluation at the same time - Automated atmospheric correction for water vapor and CO2 in MIR without the need for reference spectra <p>OPUS delivers reliable results in a short time:</p> <ul style="list-style-type: none"> - Single and repeated measurements, auto sampler support - Many interactive functions for comfortable data processing and evaluation, e.g. <ul style="list-style-type: none"> - Normalization, calculate derivative and average spectra, spectra subtraction - Spectrum calculator - Curve fit - Peak Pick - Spectra interpretation tool - Quick Compare spectra - Search spectra in a library, create your own libraries - Free starter library 	1PC	0.00	



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<ul style="list-style-type: none"> - Analyze peak areas and heights, quantitative analysis (Lambert-Beer's Law) - Automated multi step evaluation of spectra (MultiEvaluation) - Predefined print layouts, customizable print layouts - Conversion of files to different file formats (eg JCAMP) - Easy data export to other programs <p>OPUS is a validated software and supports the validation of the spectrometer:</p> <ul style="list-style-type: none"> - Automated OQ and PQ testing - Permanent instrument status indicator, online monitoring of system performance <p>OPUS is compliant to cGMP/GLP:</p> <ul style="list-style-type: none"> - Multi level user management, log-in with user name and password - Audit trail (history log function) - All data, incl. manipulation and evaluation results, stored in ONE file - Electronic signature of spectra and methods <p>OPUS supports user during daily routine work:</p> <ul style="list-style-type: none"> - Run, create and edit macros and VB scripts - Automated execution of repeated actions via calendar - Lab journal functionality - Online help - Multimedia FT-IR tutorial <p>This OPUS software package is included in the standard delivery of the spectrometer system. Spectra viewer software is available free of charge.</p>			
5	O/3D+	1PC		
	<p>OPUS/3D, Software package for 3D data processing, evaluation and visualization:</p> <ul style="list-style-type: none"> - broad variety of 2D and 3D views for 3D and 4D data, like: display 3D, false colour and contour plots, traces in variable size - IR and Raman images can be displayed in 2D and 3D on top of or next to the visible/video image of the sample - calculation and presentation of RGB images - correlation of 3D data with single component spectra - extraction of single files from 3D data and creation of 3D data from single files - principal component analysis (PCA) of 3D data; calculation of loadings and factors 			
6	O/MAP+	1PC		
	OPUS/MAP, software package for control of x-y sample stages.			
7	O/SR-N	1PC		
	<p>OPUS/SEARCH, Extended Search Software Package</p> <p>For editing structures and structure search the OPUS/STRUCTURE package is required.</p>			
8	O/VID+	1PC		
	<p>OPUS/VIDEO, Software package for video-interactive measurements:</p> <ul style="list-style-type: none"> - control for data acquisition of IR/Raman spectra and visible/video images - control of IR/Raman microscope functionality - automated mapping of irregular, line and rectangular grids - live view of spectra before measurement 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	- acquisition and assembling of overview images - data storage of spectra, IR/Raman images, visible images and annotations within one file			
	Validation software			
9	O/VAL OPUS/VALIDATION Consisting of: - 21 CFR Part 11 compliance - access to validated OPUS functions - OPUS/VALIDATION user manual	1PC		
	Bruker Libraries			
10	I24030 Natural Fibers Library recorded with the Helios-ATR-accessory	1PC		
11	I26933 BRUKER Synthetic Fibers ATR-Library about 333 spectra	1PC		
12	UDG Georgia State Crime Laboratory Drug Library approx. 2,000 spectra (requires OPUS version 4 or higher)	1PC		
	Sadtler Libraries			
13	83623 Automobile paint chips library 1,990 spectra, Sadtler, PN:460300	1PC		
	S.T.Japan Libraries			
14	1025048 ATR-FTIR-Library COMPLETE (ATR-LIB-COMPLETE+) includes ATR spectra from polymers, monomers, additives, plasticizer, fillers, building materials, cosmetics, excipients, organic and inorganic chemicals, biochemicals, fibres, proteins, fatty acids, lipids, ingredients, natural products, silicon containing compounds, solvents, pesticides, pollutants, semiconductors, dyes, paints, coatings, food, food additives, minerals, lubricants, surfactants, kidney stones, pharmaceuticals and drugs. > 26,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1PC		
15	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014	1PC		
16	1009303	1PC		



Item	Material/Description	Quantity	Unit price USD	Amount USD
	Explosives Spectra Database 405 spectra, S.T. Japan, PN:30103			
	Data Systems			
17	CS81/25+ Data system, Ultra Slim desktop "Intel" Core 2 Duo processor, >3GHz, 4GB RAM 250GB HDU or better, 8xDVD/Lightscribe Drive, 21.5" TFT display. Ports: USB 2.0 (10x), PS/2 (2), RJ-45 Network (1 + 1 USB-Ethernet Adapter), VGA, DisplayPort, line in, line out, mini PCIe. Expansion: only for one m-PCIe card, MXM(graphics) and m-SATA(disk). Operating System: Windows 7 Professional or better. (only available with order of spectrometer)	1PC		
	Services with orders			
18	S950+ Installation on-site included in the price of the system (including travel charges, inland) Note: interfacing to a customer's network requires an additional po	1PC		
	Services and Support			
19	S881 Warranty Extension to 10 Years for Interferometer Covers replacement of defective parts of the scanning mechanism of the interferometer. The warranty starts with delivery of the spectrometer. Valid for TENSOR, VERTEX spectrometer series and MultiRAM.	1PC		
20	S881-L Warranty Extension to 10 Years for laser Covers parts in case of laser defects. The warranty starts with delivery of the spectrometer.	1PC		
21	S881-S Warranty Extension to 5 Years for MIR source Covers material costs in case of source defects. The warranty starts with delivery of the spectrometer.	1PC		
22	S9200/LM Full service contract for LUMOS FTIR microscope Includes one preventive maintenance service per year, service, repair, spares and travel costs (inland). Re-validation is excluded. Details: see contract text. Extensions required for additional measurement options. Price per contract year	2PC		



Item	Material/Description	Quantity	Unit price USD	Amount USD
	Training Courses			
23	S710-US Bruker Optics Training course for the FTIR (FIR, MIR, NIR, FT Raman) Dispersive Raman and Minispec product lines. These training courses include hardware, software and applications training. Training courses locations can vary between our Houston, Texas facility and our Billerica, Massachusetts Facility. Per person, Travel and hotel expenses are NOT included in the listed price. Dates and times for these training course can be found on our website: http://www.bruker.com/service/education-training/training-courses/vibrational-optical-spectroscopy/north-america.html	1PC		



Item	Material/Description	Quantity	Amount USD
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OPTIONAL ACCESSORIES

NOT included in the total listed above.

Objectives

- | | | | |
|----|---|------|--|
| 24 | S777/LM-
Remove this selection from the quote to include the motorized ATR crystal | 1 PC | |
|----|---|------|--|

Polarizers

- | | | | |
|----|---|------|--|
| 25 | A775/LM
Motorized polarizer and analyzer
For LUMOS with high accurate positioning
- includes optomechanical and electronic implementation
- polarizer and analyzer are software controlled
This option cannot be upgraded after installation | 1 PC | |
|----|---|------|--|

Bruker Libraries

- | | | | |
|----|--|------|--|
| 26 | BEG
BRUKER Explosives - Library
42 Spectra of explosives and precursors
(requires OPUS version 4 or higher) | 1 PC | |
| 27 | 1014687
FT-IR spectrallibrary for Pharmacies
350 spectra, measured with diamond ATR,
spectral range 4,000-400cm ⁻¹ | 1 PC | |
| 28 | 1019673
BRUKER 10,000 plus spectra library
with 10,000 entries of chemical, pharmaceutical, polymer and forensic relevant
substances.
The database includes transmission and ATR spectra of solids, fibres and
liquids.
(gas spectra aren't included!) | 1 PC | |

Sadtler Libraries

- | | | | |
|----|---|------|--|
| 29 | 17509
Adhesives and Sealants (subset A) library
520 spectra, Sadtler, PN:423000 | 1 PC | |
| 30 | 17512
Canadian forensic library
3,490 spectra, Sadtler, PN:421200 | 1 PC | |
| 31 | 17515
Fibers and textile chemicals library
480 spectra, Sadtler, PN:420300 | 1 PC | |



Item	Material/Description	Quantity	Amount USD
32	17528 Prepared and prescription drugs library 880 spectra, Sadtler, PN:445700	1 PC	
33	17546 Adhesives and sealants library 2,070 spectra, Sadtler, PN:433000	1 PC	
34	301260 Commonly Abused Drugs (Acid/Base) library 580 spectra, Sadtler, PN:421400	1 PC	
35	83616 Fibers by Microscope library 450 spectra, Sadtler, PN:436400	1 PC	
36	83624 Enhanced Georgia state crime lab library 1,910 spectra, Sadtler, PN:460400	1 PC	
37	1001904 Explosive Materials library 720 spectra, Sadtler, PN:438800	1 PC	
38	1001916 HAZMAT Database 410 spectra, Sadtler, PN:438900	1 PC	
39	1014032 ATR of Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447800	1 PC	
40	1014036 Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447700	1 PC	
41	S.T.Japan Libraries 1025051 ATR-FTIR Forensics Library (ATR-LIB-FORENSICS+) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1 PC	
42	1025057	1 PC	



Item	Material/Description	Quantity	Amount USD
	ATR-FTIR Forensics Library (ATR-LIB-FORENSICS) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher		
43	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014	1 PC	
44	1005984 Hazardous Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 2,664 spectra, S.T. Japan, PN:50017	1 PC	
45	1005985 Hazardous and Toxic Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 6,604 spectra, S.T. Japan, PN:50018	1 PC	
46	1005986 Pharmaceuticals, Drugs and Antibiotics library FTIR SDBS application libraries (KBr, Liquid film), 2,806 spectra, S.T. Japan, PN:50020	1 PC	
47	1009302 White Powders Spectra Database 697 spectra, S.T. Japan, PN:30023	1 PC	
48	1019199 FTIR Paints Spectra Database 2,507 spectra, S.T. Japan, PN:30026	1 PC	

Bruker Optics Response to WVSP Solicitation DPS1425

Option 2

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics Inc. Response to WVSP Solicitation # DPS1425

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics proposal is for the LUMOS standalone/integrated FTIR microscope.
There are three optional proposals which vary in the selection of library databases.
Each proposal contains the following:

- 3.1.1.1 Fully automated FTIR microscope with validation (21CFR11 compliant) and simultaneous viewing and collection
- 3.1.1.2 Integrated FTIR sealed and desiccated
 - Permanently aligned interferometer with a 10-year warranty, KBR/Ge optics
 - 7800-450 cm⁻¹ spectral range; PC-controlled, automatically selectable range
 - User-replaceable high-intensity source & desiccant
 - Permanent laser for frequency calibration; 10-year warranty
 - High speed 24-bit ADC
 - Automated transmission/reflection objectives and automated condenser
 - Optional ATR objective (better than the low resolution crystal specified in the bid)
 - Automated full-view aperture
 - Automated, PC controlled LEDs for Reflection, Transmssion & Aperture illumination
 - Fully integrated pressure sensor in the objective (not the stage as specified in the solicitation) providing higher precision
 - Purge control included with regulator
 - Ultra high resolution digital CCD color video camera; higher quality than in solicitation: CMOS; 2560 x 1920; QSXGA; 5 Megapixel; ½ inch chip
 - 8X objectives with optical zoom for viewing; achieves 3 micron spatial resolution; nearest competitor achieves 8 micron spatial resolution or worse
 - English language
 - All gold coated mirrors
 - FTIR training for personnel on-site at installation
 - FTIR advanced microscopy training course for 2 people either off-site or on-line
 - Motorized high precision (0.1 micron) stage
 - Motorized joystick
 - FTIR background and standards plate

Full 1 year warranty on all parts
10-year warranty on interferometer and laser
5-year warranty on source
All warranties are for parts, labor, travel and service time

3.1.2. PC optimized for our microscope

3.1.3. Bio-Rad Automotive Paint Chip Library with 1,990 spectra

3.1.4. OPUS software + 3 different database options:

- **OPTION 1:** Over 220,000 compounds are accessible with integrated software for searching, mixture analysis & multi-component library searching over the entire BioRad database
Requires an annual, low-cost subscription; purchase up to 3 years at one time
- **OPTION 2:** Over 30,000 forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching
- **OPTION :** Choose the databases that you want of forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching

3.1.5 & 6. Purchase as many years of support/maintenance as you like; parts, labor and travel are free-of-charge and 1 PM visit per year is included!

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DPS1425

000000

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Bruker Optics
Company
Dean D. [Signature]
Authorized Signature
5-28-2014
Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER

DPS1425

PAGE

1

ADDRESS CORRESPONDENCE TO ATTENTION OF

TARA LYLE
304-558-2544

*A15111245 978-439-9899

BRUKER OPTICS INC
19 FORTUNE DRIVE

BILLERICA MA 01821

V
E
N
D
O
R

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

S
H
I
P
T
O

DATE PRINTED

04/24/2014

BID OPENING DATE:

05/21/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>THE WEST VIRGINIA STATE PURCHASING DIVISION ON BEHALF OF THE WEST VIRGINIA STATE POLICE, IS SOLICITING BIDS FOR A ONE-TIME PURCHASE OF AN INTEGRATED INFRARED MICROSCOPE AND OTHER RELATED ACCESSORIES, PER THE ATTACHED DOCUMENTATION.</p> <p>ATTACHMENTS INCLUDE:</p> <ol style="list-style-type: none">1. INSTRUCTIONS TO VENDORS SUBMITTING BIDS2. GENERAL TERMS AND CONDITIONS3. DPS1425 SPECIFICATIONS4. CERTIFICATION AND SIGNATURE PAGE5. PURCHASING AFFIDAVIT6. VENDOR PREFERENCE CERTIFICATE <p>THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.</p>						
0001	1	EA	490-58	INTEGRATED INFRARED MICROSCOPE	\$98,823.83	\$85,512.97
<p>SIGNATURE _____ TELEPHONE _____ DATE _____</p> <p>TITLE _____ FEIN _____ ADDRESS CHANGES TO BE NOTED ABOVE</p>						

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER
DPS1425

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF
TARA LYLE 304-558-2544

*A15111245 978-439-9899

BRUKER OPTICS INC
19 FORTUNE DRIVE

BILLERICA MA 01821

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

DATE PRINTED
04/24/2014

BID OPENING DATE: 05/21/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0002	1	EA		205-43	\$1732.40	\$1524.51
				COMPUTER WORKSTATION		
0003	1	EA		205-43	\$4,132.20	\$3,636.34
				AUTOMOTIVE PAINT CHIP LIBRARY		
0004	1	EA		939-22	\$10,394.40	\$9,147.07
				2ND YEAR SUPPORT/MAINTENANCE		
0005	1	EA		939-22	\$10,394.40	\$9,147.07
				3RD YEAR SUPPORT/MAINTENANCE		
***** THIS IS THE END OF RFQ DPS1425 ***** TOTAL:						\$95,344.48
+ Software \$30,293 Spectra Database						\$16,307.37
TOTAL						\$111,651.85

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

000024

DPS 1425 Pricing Page

Item #	Description	Quantity	Unit Price	Extended Price												
3.1.1	Integrated Infrared Microscope, Nicolet IN10 or equal	1 ea	\$ \$98,823.83	\$85,512.97												
3.1.2	Workstation, Dell Optiplex or equal	1 ea	\$ \$1,732.40	\$1,524.51												
3.1.3	Automotive Paint Chl Library, Biorad or equal	1 ea	\$ \$4,132.20	\$3,636.34												
3.1.4	OMNIC Spectra i550 Edition ir Equal	1 ea	\$ \$18,531.10	\$16,307.37 (30,293 Spectra)												
3.1.5	Year Two support/maintenance	1 yr	\$ \$10,394.40	\$9,147.07												
3.1.6	Year Three support/maintenance	1 yr	\$ \$10,394.40	\$9,147.07												
Failure to use this form may result in disqualification.			Total Cost:	\$ \$111,651.85+ free shipping												
Bidder / Vendor Information:																
<table style="width: 100%;"> <tr> <td style="width: 30%;">Name: _____</td> <td style="width: 70%;">Name: Bruker Optics, Inc _____</td> </tr> <tr> <td>Address: _____</td> <td>Address: 19 Fortune Dr. _____</td> </tr> <tr> <td>Phone #: _____</td> <td>Billerica, MA 01821 _____</td> </tr> <tr> <td>Email Address: _____</td> <td>Phone: 978-439-9899 _____</td> </tr> <tr> <td></td> <td>Email: dda@brukeroptics.com _____</td> </tr> </table>					Name: _____	Name: Bruker Optics, Inc _____	Address: _____	Address: 19 Fortune Dr. _____	Phone #: _____	Billerica, MA 01821 _____	Email Address: _____	Phone: 978-439-9899 _____		Email: dda@brukeroptics.com _____		
Name: _____	Name: Bruker Optics, Inc _____															
Address: _____	Address: 19 Fortune Dr. _____															
Phone #: _____	Billerica, MA 01821 _____															
Email Address: _____	Phone: 978-439-9899 _____															
	Email: dda@brukeroptics.com _____															
Contact Coordinator Information:																
<table style="width: 100%;"> <tr> <td style="width: 30%;">Name: _____</td> <td style="width: 70%;">Name: Diane Allen/Bruker Optics, Inc _____</td> </tr> <tr> <td>Address: _____</td> <td>Address: 2623 Caulfield Ct _____</td> </tr> <tr> <td>Phone #: _____</td> <td>Frederick, MD 21701 _____</td> </tr> <tr> <td>Email Address: _____</td> <td>Phone: 301-360-9868 [Office] _____</td> </tr> <tr> <td></td> <td>847-687-1495 [Mobile] _____</td> </tr> <tr> <td></td> <td>Email: dda@brukeroptics.com _____</td> </tr> </table>					Name: _____	Name: Diane Allen/Bruker Optics, Inc _____	Address: _____	Address: 2623 Caulfield Ct _____	Phone #: _____	Frederick, MD 21701 _____	Email Address: _____	Phone: 301-360-9868 [Office] _____		847-687-1495 [Mobile] _____		Email: dda@brukeroptics.com _____
Name: _____	Name: Diane Allen/Bruker Optics, Inc _____															
Address: _____	Address: 2623 Caulfield Ct _____															
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Email Address: _____	Phone: 301-360-9868 [Office] _____															
	847-687-1495 [Mobile] _____															
	Email: dda@brukeroptics.com _____															

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Bruker Optics

(Company)

Diane D. Allen

(Authorized Signature)

Diane D. Allen, Regional Sales Manager

(Representative Name, Title)

301-360-9868 // 978-663-9177

(Phone Number)

(Fax Number)

5-27-2014

(Date)

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form of business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Brucker Optics

Authorized Signature: [Signature] Date: _____

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ____ day of _____, 20__.

My Commission expires _____, 20__.

AFFIX SEAL HERE

NOTARY PUBLIC _____

Purchasing Affidavit (Revised 07/01/2012)

I will fax over the notarized copy tomorrow before the bid opening. [Signature]

Bruker Option 2:

Sold To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Ship To
West Virginia State Police
Crime Laboratory
4124 Kanawha Turnpike
CHARLESTON WV 25309
USA

Quotation no.	1220024498	Your Customer No.	1087468
Document date	05/28/2014	Contact Person	Diane Allen
Valid until	07/27/2014	Telephone	(978) 439-9899
Delivery time after		Tel. ext.	5458
Receipt of order	approx. 30 days	Email	diane.allen@brukeroptics.com

Includes 1 Full Year of Warranty on all parts, service, travel & maintenance and the same protection plus 1 annual PM service visit for 2 additional years.

Includes Additional Free Extended Warranties for Low Cost-of-Ownership:

- 10-year warranty on our maintenance-free Rocksolid (TM) interferometer!
- 10-year warranty on our solid-state laser!
- 5-year warranty on our Global Source!
- Full 1-year warranty on all other items!

* Warranties are for parts and labor!

FOB Destination/Shipping at no charge to WVSP -- supercedes any other shipping description in this document.

Item	Material/Description	Quantity	Unit price USD	Amount USD
	Spectrometer			
1	LUMOS Standalone FT-IR microscope For routine and advanced applications with full automation. All components of the LUMOS are motorized. The LUMOS is a very compact FT-IR microscope (width x height x depth: 30 x 64 x 52cm) including a FT-IR spectrometer with a permanently aligned RockSolid interferometer ensuring excellent sensitivity and wave length stability. Beside transmission and reflection, the LUMOS is also prepared for fully automated measurements in attenuated total reflection (ATR) using a motorized ATR crystal. Automation includes sample, background and calibration measurements. The LUMOS can be used for automated single point measurements but also for automated mapping and imaging. The very intuitive	1PC	86,620.00	86,620.00

Bruker Optics Inc.
19 Fortune Drive
Billerica, MA 01821
Phone: 978-439-9899
www.brukeroptics.com



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>OPUS software guides the user step by step through data acquisition and includes many features for effective data processing, data evaluation and data visualization. All essential optical and electronic components of the LUMOS are monitored continuously to provide highest sensitivity during full life time. In case of a component failure or when a test for OQ/PQ has expired, the operator is notified immediately. The LUMOS utilizes a diode laser and a RockSolid interferometer with a life time of over 10 years and an infrared light source with a life time of over 5 years. The only consumable for the LUMOS is the liquid nitrogen for the cooling of the sensitive MCT detector. To facilitate the usage of the LUMOS even in countries with high humidity, all included IR-transparent window material and the beam splitter are made from ZnSe which is fully inert against water vapor.</p> <p>Includes:</p> <ul style="list-style-type: none"> - Standalone FTIR spectrometer microscope with permanently aligned RockSolid interferometer (ZnSe-BMS; gold coated mirrors; life time >10 years) - Spectral resolution: better than 2cm⁻¹; option: better than 0.8cm⁻¹ - Spectral range: 7,000-650cm⁻¹ - Sealed and desiccated housing with ZnSe windows to be resistant against humidity; desiccant reusable; prepared for purge with dried air (not required) - Instrument tests for operational and performance qualification (OQ; PQ); including internal calibration procedures for spectral axes (polystyrene standard) - Permanent monitoring of all essential spectrometer components, system performance and humidity - Diode laser (diode, life time >10 years) - SiC glowbar source with long life time (>5 years) - Mid band MCT detector D316015/BP (7,000-650cm⁻¹; liquid N₂ cooled, including preamplifier; True 24 bit ADC; Permavac) - IR and Vis illumination and focusing optics for transmission and reflection - Independent white light LED illumination for Vis in transmission and reflection with Köhler apertures for contrast enhancement - 8x Cassegrain objective for measurements in transmission, reflection and attenuated total reflection (ATR); NA (0.4-0.6), working distance (30mm); equipped with a motorized ATR crystal for automated ATR measurements with pressure control - Automated change of numerical aperture (NA) between IR (0.6) and Vis (0.4) mode - Automated change from IR to Vis mode. Permanent view of sample with positioned aperture even during IR data acquisition - Motorized condenser with automated adjustment for transmission (autofocus) and automated parking for reflection and ATR. - Motorized z drive for xy-stage - Motorized transparent knife-edge aperture with precise positioning; permanent view of aperture even during data collection - Autofocus; can be activated by one click touch or used automatically before each measurement - Motorized xy sampling stage; adjustment range: 75x50mm; adjustment accuracy (=smallest step size): 0.1µm; repeatability: <1µm. Allows fully automated mapping and imaging measurements in all measurement modes. - Insertion plate for motorized stage to perform automated background 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	measurements in transmission, reflection and ATR and to perform automated OQ/PQ tests - Fast CMOS camera; 2560 x 1920; QSXGA; 5 MegaPixel; 1/2"; large field of view: 1.5 x 1.2 mm, digital 4x zoom - Joystick - OPUS/ Video software with a special GUI guiding the operator through the sample inspection and data acquisition procedure - OPUS/3D for data processing, evaluation and visualization - OPUS/MAP software for control of the motorized xy-stage - Internal validation unit for automated OQ/PQ testing with reference standards			
	Spectral Range Extension			
2	W304/LM Spectral range extension to 7,800–450cm ⁻¹ includes KBr optics (beam splitter and windows) in lieu of ZnSe and broad band MCT detector D315015/BP in lieu of mid band MCT D316015/BP only available for new LUMOS; option can not be upgraded on existing LUMOS	1PC	1,448.40	1,448.40
	Objectives			
3	S777/LM- without motorized ATR crystal price reduction	1PC	-4,842.20	-4,842.20
	OPUS Spectroscopy Software			
4	O/IR+ OPUS/IR, FT-IR Spectroscopy Software Package OPUS is an integrated spectroscopy software for laboratory and process control. OPUS is easy to use: - Configurable user interface and access to executable functions - Automatic consistency-test of measurement parameters - Multi Tasking: Measurement and data manipulation/evaluation at the same time - Automated atmospheric correction for water vapor and CO ₂ in MIR without the need for reference spectra OPUS delivers reliable results in a short time: - Single and repeated measurements, auto sampler support - Many interactive functions for comfortable data processing and evaluation, e.g. - Normalization, calculate derivative and average spectra, spectra subtraction - Spectrum calculator - Curve fit - Peak Pick - Spectra interpretation tool - Quick Compare spectra - Search spectra in a library, create your own libraries - Free starter library	1PC	0.00	



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<ul style="list-style-type: none"> - Analyze peak areas and heights, quantitative analysis (Lambert-Beer's Law) - Automated multi step evaluation of spectra (MultiEvaluation) - Predefined print layouts, customizable print layouts - Conversion of files to different file formats (eg JCAMP) - Easy data export to other programs <p>OPUS is a validated software and supports the validation of the spectrometer:</p> <ul style="list-style-type: none"> - Automated OQ and PQ testing - Permanent instrument status indicator, online monitoring of system performance <p>OPUS is compliant to cGMP/GLP:</p> <ul style="list-style-type: none"> - Multi level user management, log-in with user name and password - Audit trail (history log function) - All data, incl. manipulation and evaluation results, stored in ONE file - Electronic signature of spectra and methods <p>OPUS supports user during daily routine work:</p> <ul style="list-style-type: none"> - Run, create and edit macros and VB scripts - Automated execution of repeated actions via calendar - Lab journal functionality - Online help - Multimedia FT-IR tutorial <p>This OPUS software package is included in the standard delivery of the spectrometer system. Spectra viewer software is available free of charge.</p>			
5	O/3D+	1PC	0.00	
	<p>OPUS/3D, Software package for 3D data processing, evaluation and visualization:</p> <ul style="list-style-type: none"> - broad variety of 2D and 3D views for 3D and 4D data, like: display 3D, false colour and contour plots, traces in variable size - IR and Raman images can be displayed in 2D and 3D on top of or next to the visible/video image of the sample - calculation and presentation of RGB images - correlation of 3D data with single component spectra - extraction of single files from 3D data and creation of 3D data from single files - principal component analysis (PCA) of 3D data; calculation of loadings and factors 			
6	O/MAP+	1PC	0.00	
	OPUS/MAP, software package for control of x-y sample stages.			
7	O/SR-N	1PC	1,505.20	1,505.20
	<p>OPUS/SEARCH, Extended Search Software Package</p> <p>For editing structures and structure search the OPUS/STRUCTURE package is required.</p>			
8	O/VID+	1PC	0.00	
	<p>OPUS/VIDEO, Software package for video-interactive measurements:</p> <ul style="list-style-type: none"> - control for data acquisition of IR/Raman spectra and visible/video images - control of IR/Raman microscope functionality - automated mapping of irregular, line and rectangular grids - live view of spectra before measurement 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	- acquisition and assembling of overview images - data storage of spectra, IR/Raman images, visible images and annotations within one file			
	Validation software			
9	O/VAL OPUS/VALIDATION Consisting of: - 21 CFR Part 11 compliance - access to validated OPUS functions - OPUS/VALIDATION user manual	1PC	2,598.60	2,598.60
	Bruker Libraries			
10	I24030 Natural Fibers Library recorded with the Helios-ATR-accessory	1PC	717.10	717.10
11	I26933 BRUKER Synthetic Fibers ATR-Library about 333 spectra	1PC	724.20	724.20
12	UDG Georgia State Crime Laboratory Drug Library approx. 2,000 spectra (requires OPUS version 4 or higher)	1PC	1,420.00	1,420.00
	Sadtler Libraries			
13	83623 Automobile paint chips library 1,990 spectra, Sadtler, PN:460300	1PC	4,132.20	4,132.20
	S.T.Japan Libraries			
14	1025048 ATR-FTIR-Library COMPLETE (ATR-LIB-COMPLETE+) includes ATR spectra from polymers, monomers, additives, plasticizer, fillers, building materials, cosmetics, excipients, organic and inorganic chemicals, biochemicals, fibres, proteins, fatty acids, lipids, ingredients, natural products, silicon containing compounds, solvents, pesticides, pollutants, semiconductors, dyes, paints, coatings, food, food additives, minerals, lubricants, surfactants, kidney stones, pharmaceuticals and drugs. > 26,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1PC	6,702.40	6,702.40
15	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014	1PC	2,130.00	2,130.00
16	1009303	1PC	1,200.00	1,200.00



Item	Material/Description	Quantity	Unit price USD	Amount USD
	Explosives Spectra Database 405 spectra, S.T. Japan, PN:30103			
	Data Systems			
17	CS81/25+ Data system, Ultra Slim desktop "Intel" Core 2 Duo processor, >3GHz, 4GB RAM 250GB HDU or better, 8xDVD/Lightscribe Drive, 21.5" TFT display. Ports: USB 2.0 (10x), PS/2 (2), RJ-45 Network (1 + 1 USB-Ethernet Adapter), VGA, DisplayPort, line in, line out, mini PCIe. Expansion: only for one m-PCIe card, MXM(graphics) and m-SATA(disk). Operating System: Windows 7 Professional or better. (only available with order of spectrometer)	1PC	1,732.40	1,732.40
	Services with orders			
18	S950+ Installation on-site included in the price of the system (including travel charges, inland) Note: interfacing to a customer's network requires an additional po	1PC	0.00	
	Services and Support			
19	S881 Warranty Extension to 10 Years for Interferometer Covers replacement of defective parts of the scanning mechanism of the interferometer. The warranty starts with delivery of the spectrometer. Valid for TENSOR, VERTEX spectrometer series and MultiRAM.	1PC	0.00	
20	S881-L Warranty Extension to 10 Years for laser Covers parts in case of laser defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	
21	S881-S Warranty Extension to 5 Years for MIR source Covers material costs in case of source defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	
22	S9200/LM Full service contract for LUMOS FTIR microscope Includes one preventive maintenance service per year, service, repair, spares and travel costs (inland). Re-validation is excluded. Details: see contract text. Extensions required for additional measurement options. Price per contract year	2PC	10,394.40	20,788.80



Item	Material/Description	Quantity	Unit price USD	Amount USD
Training Courses				
23	S710-US Bruker Optics Training course for the FTIR (FIR, MIR, NIR, FT Raman) Dispersive Raman and Minispec product lines. These training courses include hardware, software and applications training. Training courses locations can vary between our Houston, Texas facility and our Billerica, Massachusetts Facility. Per person, Travel and hotel expenses are NOT included in the listed price. Dates and times for these training course can be found on our website: http://www.bruker.com/service/education-training/training-courses/vibrational-optical-spectroscopy/north-america.html or by calling 1-888-4BRUKER	1PC	1,650.00	1,650.00
Total price net				128,527.10
Training Course Discount (Value)				-1,650.00
Percentage Discount				-12.00%
Total price incl. discount net				111,651.85



Item	Material/Description	Quantity	Amount USD
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OPTIONAL ACCESSORIES [ALL CARRY A 12% DISCOUNT IF SELECTED]:

Prices are NOT included in the total listed above.

Objectives

24	S777/LM- Remove this selection from the quote to include the motorized ATR crystal [new price will reflect a 12% discount on this item]	1 PC	-4,842.20
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Polarizers

25	A775/LM Motorized polarizer and analyzer For LUMOS with high accurate positioning - includes optomechanical and electronic implementation - polarizer and analyzer are software controlled This option cannot be upgraded after installation	1 PC	2,612.80
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Bruker Libraries

26	BEG BRUKER Explosives - Library 42 Spectra of explosives and precursors (requires OPUS version 4 or higher)	1 PC	985.48
27	1014687 FT-IR spectrallibrary for Pharmacies 350 spectra, measured with diamond ATR, spectral range 4,000-400cm-1	1 PC	710.00
28	1019673 BRUKER 10,000 plus spectra library with 10,000 entries of chemical, pharmaceutical, polymer and forensic relevant substances. The database includes transmission and ATR spectra of solids, fibres and liquids. (gas spectra aren't included!)	1 PC	2,612.80

Sadtler Libraries

29	17509 Adhesives and Sealants (subset A) library 520 spectra, Sadtler, PN:423000	1 PC	2,868.40
30	17512 Canadian forensic library 3,490 spectra, Sadtler, PN:421200	1 PC	4,231.60
31	17515 Fibers and textile chemicals library 480 spectra, Sadtler, PN:420300	1 PC	2,513.40



Item	Material/Description	Quantity	Amount USD
32	17528 Prepared and prescription drugs library 880 spectra, Sadtler, PN:445700	1 PC	3,379.60
33	17546 Adhesives and sealants library 2,070 spectra, Sadtler, PN:433000	1 PC	6,347.40
34	301260 Commonly Abused Drugs (Acid/Base) library 580 spectra, Sadtler, PN:421400	1 PC	934.36
35	83616 Fibers by Microscope library 450 spectra, Sadtler, PN:436400	1 PC	1,846.00
36	83624 Enhanced Georgia state crime lab library 1,910 spectra, Sadtler, PN:460400	1 PC	1,689.80
37	1001904 Explosive Materials library 720 spectra, Sadtler, PN:438800	1 PC	3,692.00
38	1001916 HAZMAT Database 410 spectra, Sadtler, PN:438900	1 PC	2,584.40
39	1014032 ATR of Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447800	1 PC	2,229.40
40	1014036 Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447700	1 PC	2,229.40
S.T.Japan Libraries			
41	1025051 ATR-FTIR Forensics Library (ATR-LIB-FORENSICS+) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1 PC	2,399.80
42	1025057	1 PC	4,927.40



Item	Material/Description	Quantity	Amount USD
	ATR-FTIR Forensics Library (ATR-LIB-FORENSICS) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher		
43	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014	1 PC	2,130.00
44	1005984 Hazardous Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 2,664 spectra, S.T. Japan, PN:50017	1 PC	3,100.00
45	1005985 Hazardous and Toxic Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 6,604 spectra, S.T. Japan, PN:50018	1 PC	4,930.00
46	1005986 Pharmaceuticals, Drugs and Antibiotics library FTIR SDBS application libraries (KBr, Liquid film), 2,806 spectra, S.T. Japan, PN:50020	1 PC	2,660.00
47	1009302 White Powders Spectra Database 697 spectra, S.T. Japan, PN:30023	1 PC	1,300.00
48	1019199 FTIR Paints Spectra Database 2,507 spectra, S.T. Japan, PN:30026	1 PC	3,464.80

General Terms and Conditions

A) GENERAL CONDITIONS

- 1) The terms and conditions contained herein constitute the sole terms and conditions governing the purchase of any products or services by the customer identified on the face hereof ("Customer") from Bruker Optics Inc. ("BOPT"). Customer may acknowledge its acceptance of these terms and conditions by returning a signed copy of the quotation, placing an order with BOPT or by its receipt of any products from BOPT. Any terms and conditions different from or in addition to those contained herein, including any contained in Customer's purchase order or in any other documents furnished by Customer, shall be of no force or effect in connection with the sale of any products by BOPT to Customer and BOPT hereby objects to and rejects in their entirety all such terms and conditions, as BOPT's agreement to sell any products to Customer is expressly made conditional upon the use of these terms and conditions.
- 2) The rights and obligations of the parties shall be governed in all respects by the laws of the Commonwealth of Massachusetts and the parties shall submit themselves to the jurisdiction thereof.
- 3) Purchase orders are subject to written acceptance by BOPT.

B) PRICE AND QUOTATION

- 1) All quotations are firm for a period of forty five (45) days, unless otherwise specified in the quotation.
- 2) All prices are FOB Billerica, Massachusetts. Responsibility passes to Customer upon delivery to the transportation company and risk of damage or loss following such delivery shall be Customer's. Title to all purchased items passes to Customer upon delivery to the transportation company.
- 3) Prices quoted do not include city, state or federal sales or similar taxes and duties. Customer is responsible for all such taxes and duties.
- 4) This quotation is only valid when the system is purchased and used in the USA, Canada or Puerto Rico. This quotation becomes null and void if Customer ships the system outside the USA, Canada or Puerto Rico.

C) DELIVERY AND SHIPMENT

- 1) Delivery time is computed from the date of acknowledgement by BOPT of Customer's written order.
- 2) BOPT shall not be liable for delivery delays due to circumstances beyond its control, including, but not limited to, fire, flood, war, labor disputes, accidents or delay of carriers, subcontractors or suppliers.

D) TERMS AND PAYMENT

- 1) 30% due on order, remainder due within 30 days after the date thereof.
- 2) Orders shipped and invoiced in separate parts shall be due upon receipt of each such part.
- 3) Customer hereby grants BOPT a purchase money security interest in all items purchased hereunder. In the event Customer fails to make payment for any item purchased hereunder within the required time period, BOPT shall have the right to exercise all remedies of a secured party under the laws of the Commonwealth of Massachusetts.

E) EXPORT COMPLIANCE

Customer understands that exports and re-exports of BOPT products and any related software, technical data, service, or technical assistance (individually, an "Item" and, collectively, the "Items") are subject to U.S. and foreign trade controls, customs and economic sanctions laws, regulations, rules and orders (collectively, "Export Control Laws"). In addition to any other remedy it may have, BOPT may suspend and/or cancel the export, delivery, installation, and/or any maintenance or repair service of any Item if (a) BOPT has not received all export-related documentation requested by BOPT, including end-user certificates, (b) BOPT has not received the governmental approvals that BOPT deems to be required, or (c) BOPT believes that such activity may violate any Export Control Laws or BOPT's own compliance policies. Customer shall only use the Items for non-military, peaceful purposes. Customer shall not export, re-export or otherwise transfer or provide any Item in contravention of any Export Control Law or any end-user certificate provided by Customer, including to an embargoed or otherwise sanctioned country. Customer must notify BOPT before providing any technical data to BOPT that is controlled under any Export Control Law. BOPT will not be liable to Customer for any loss or expense if Customer fails to comply with any Export Control Law. Customer shall indemnify BOPT for all losses, costs, claims, damages and expenses (including attorney fees and expenses) arising from Customer's violation or alleged violation of any Export Control Law.

F) INSTALLATION

Systems, parts and accessories DO NOT include installation unless otherwise provided in this quotation. Acceptance shall occur upon the demonstration of the compliance of the system with its specifications. In the event Customer has not accepted a system within ninety (90) days after receipt of the system by Customer, through no fault on the part of BOPT, the system shall be deemed to be accepted by Customer as of the expiration of such ninety (90) days.

G) WARRANTY

All standard products manufactured and sold by BOPT carry a limited warranty. Systems are warranted for one year to be free of defects in material and workmanship. Services, parts, and accessories purchased separately from systems are warranted for ninety (90) days. The applicable warranty period for systems begins upon system acceptance, but not later than three (3) months after delivery. The applicable warranty period for services, parts and accessories (other than those purchased with a complete system) begins upon delivery.

This warranty is subject to the following limitations:

- 1) This warranty applies only to defects in material and workmanship does not include such items as routine maintenance, adjustments, or recalibration.
- 2) For items supplied but not manufactured by BOPT, the warranty of the manufacturer will be transferred to the Customer.
- 3) Any loss, damage, and/or instrument malfunction relating in any way to the following is not covered:
 - a) Shipping or storage;
 - b) Accident, abuse, alteration, misuse, or neglect;
 - c) Breakage or abuse of parts;
 - d) Operation other than in accordance with correct operating procedures;
 - e) Tampering with the system;
 - f) Lack of routine care and maintenance;
 - g) Inadequate utility service; or
 - h) Chemical action or contamination.
- 4) In-warranty repaired or replacement parts are covered by warranty only for the remaining unexpired portion of the original warranty period.

All claims under warranty must be made promptly to BOPT within the warranty period. Such claims should include the product type and serial numbers, and a full description of the circumstances giving rise to the claim. BOPT reserves the right to determine whether to make repair under valid warranty claims by (a) sending a field service engineer to the site, or (b) having Customer send the defective item to an authorized facility. Any item sent to an authorized facility for examination shall be sent prepaid using a BOPT accepted method of transportation at the expense of Customer. Customer shall be responsible for all damage resulting from improper packing or handling, and for loss in transit.

The foregoing constitutes the sole warranty made by BOPT, express or implied, and states the sole liability of BOPT and the sole remedy of Customer for breach of warranty. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY EXCLUDED.

H) LIMITATION OF LIABILITY

Reasonable care must be used by Customer to avoid hazards. BOPT expressly disclaims responsibility for loss or damage caused by use of its products other than in accordance with proper operating procedures. IN NO EVENT SHALL BOPT BE LIABLE FOR INCIDENTAL, SPECIAL, INDIRECT, CONSEQUENTIAL OR RESULTING LOSS OR DAMAGE OF ANY KIND, HOWSOEVER CAUSED. BOPT'S LIABILITY FOR DAMAGES SHALL NOT EXCEED PAYMENT, IF ANY RECEIVED BY BOPT FOR THE UNIT OR PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED, AS THE CASE MAY BE, WHICH IS THE SUBJECT OF THE CLAIM OR DISPUTE.

Additional Information About BOPT

DUNS: 88-362-9271

TIN: 04-3275192

CAGE CODE: 1FFD9

BOPT holds a valid registration in ORCA

BOPT holds a valid registration in the Central Contract Registration (CCR)

Bruker Optics Response to WVSP Solicitation DPS1425

Option 3

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics Inc. Response to WVSP Solicitation # DPS1425

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics proposal is for the LUMOS standalone/integrated FTIR microscope.
There are three optional proposals which vary in the selection of library databases.
Each proposal contains the following:

3.1.1.1 Fully automated FTIR microscope with validation (21CFR11 compliant) and simultaneous viewing and collection

3.1.1.2 Integrated FTIR sealed and desiccated

Permanently aligned interferometer with a 10-year warranty, KBR/Ge optics

7800-450 cm⁻¹ spectral range; PC-controlled, automatically selectable range

User-replaceable high-intensity source & desiccant

Permanent laser for frequency calibration; 10-year warranty

High speed 24-bit ADC

Automated transmission/reflection objectives and automated condenser

Optional ATR objective (better than the low resolution crystal specified in the bid)

Automated full-view aperture

Automated, PC controlled LEDs for Reflection, Transmssion & Aperture illumination

Fully integrated pressure sensor in the objective (not the stage as specified in the solicitation) providing higher precision

Purge control included with regulator

Ultra high resolution digital CCD color video camera; higher quality than in solicitation: CMOS; 2560 x 1920; QXGA; 5 Megapixel; ½ inch chip

8X objectives with optical zoom for viewing; achieves 3 micron spatial resolution; nearest competitor achieves 8 micron spatial resolution or worse

English language

All gold coated mirrors

FTIR training for personnel on-site at installation

FTIR advanced microscopy training course for 2 people either off-site or on-line

Motorized high precision (0.1 micron) stage

Motorized joystick

FTIR background and standards plate

Full 1 year warranty on all parts
10-year warranty on interferometer and laser
5-year warranty on source
All warranties are for parts, labor, travel and service time

3.1.2. PC optimized for our microscope

3.1.3. Bio-Rad Automotive Paint Chip Library with 1,990 spectra

3.1.4. OPUS software + 3 different database options:

- **OPTION 1:** Over 220,000 compounds are accessible with integrated software for searching, mixture analysis & multi-component library searching over the entire BioRad database
Requires an annual, low-cost subscription; purchase up to 3 years at one time
- **OPTION 2:** Over 30,000 forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching
- **OPTION :** Choose the databases that you want of forensically relevant compounds have been selected over several databases; use OPUS software software for searching, mixture analysis & multi-component library searching

3.1.5 & 6. Purchase as many years of support/maintenance as you like; parts, labor and travel are free-of-charge and 1 PM visit per year is included!

Bruker Option 3:



Sold To
West Virginia State Police
Crime Laboratory

725 Jefferson Road
CHARLESTON WV 25309-1698
USA

Ship To
West Virginia State Police
Crime Laboratory

725 Jefferson Road
CHARLESTON WV 25309-1698
USA

Quotation no.	1220024500	Your Customer No.	1087468
Document date	05/28/2014	Contact Person	Diane Allen
Valid until	07/27/2014	Telephone	(978) 439-9899
Delivery time after		Tel. ext.	5458
Receipt of order	approx. 30 days	Email	diane.allen@brukeroptics.com

Includes 1 Full Year of Warranty on all parts, service, travel & maintenance and the same protection plus 1 annual PM service visit for 2 additional years.

Includes Additional Free Extended Warranties for Low Cost-of-Ownership:

- 10-year warranty on our maintenance-free Rocksolid (TM) interferometer!
- 10-year warranty on our solid-state laser!
- 5-year warranty on our Global Source!
- Full 1-year warranty on all other items!

* Warranties are for parts and labor!

FOB Destination/Shipping at no charge to WVSP -- supercedes any other shipping description in this document.

Item	Material/Description	Quantity	Unit price USD	Amount USD
1	Spectrometer LUMOS Standalone FT-IR microscope For routine and advanced applications with full automation. All components of the LUMOS are motorized. The LUMOS is a very compact FT-IR microscope (width x height x depth: 30 x 64 x 52cm) including a FT-IR spectrometer with a permanently aligned RockSolid interferometer ensuring excellent sensitivity and wave length stability. Beside transmission and reflection, the LUMOS is also prepared for fully automated measurements in attenuated total reflection (ATR) using a motorized ATR crystal. Automation includes sample, background and calibration measurements. The LUMOS can be used for automated single point measurements but also for automated mapping and imaging. The very intuitive	1PC		

Bruker Optics Inc.
19 Fortune Drive
Billerica, MA 01821
Phone: 978-439-9899
www.brukeroptics.com



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>OPUS software guides the user step by step through data acquisition and includes many features for effective data processing, data evaluation and data visualization. All essential optical and electronic components of the LUMOS are monitored continuously to provide highest sensitivity during full life time. In case of a component failure or when a test for OQ/PQ has expired, the operator is notified immediately. The LUMOS utilizes a diode laser and a RockSolid interferometer with a life time of over 10 years and an infrared light source with a life time of over 5 years. The only consumable for the LUMOS is the liquid nitrogen for the cooling of the sensitive MCT detector. To facilitate the usage of the LUMOS even in countries with high humidity, all included IR-transparent window material and the beam splitter are made from ZnSe which is fully inert against water vapor.</p> <p>Includes:</p> <ul style="list-style-type: none"> - Standalone FTIR spectrometer microscope with permanently aligned RockSolid interferometer (ZnSe-BMS; gold coated mirrors; life time >10 years) - Spectral resolution: better than 2cm⁻¹; option: better than 0.8cm⁻¹ - Spectral range: 7,000-650cm⁻¹ - Sealed and desiccated housing with ZnSe windows to be resistant against humidity; desiccant reusable; prepared for purge with dried air (not required) - Instrument tests for operational and performance qualification (OQ; PQ); including internal calibration procedures for spectral axes (polystyrene standard) - Permanent monitoring of all essential spectrometer components, system performance and humidity - Diode laser (diode, life time >10 years) - SiC glowbar source with long life time (>5 years) - Mid band MCT detector D316015/BP (7,000-650cm⁻¹; liquid N₂ cooled, including preamplifier; True 24 bit ADC; Permavac) - IR and Vis illumination and focusing optics for transmission and reflection - Independent white light LED illumination for Vis in transmission and reflection with Köhler apertures for contrast enhancement - 8x Cassegrain objective for measurements in transmission, reflection and attenuated total reflection (ATR); NA (0.4-0.6), working distance (30mm); equipped with a motorized ATR crystal for automated ATR measurements with pressure control - Automated change of numerical aperture (NA) between IR (0.6) and Vis (0.4) mode - Automated change from IR to Vis mode. Permanent view of sample with positioned aperture even during IR data acquisition - Motorized condenser with automated adjustment for transmission (autofocus) and automated parking for reflection and ATR. - Motorized z drive for xy-stage - Motorized transparent knife-edge aperture with precise positioning; permanent view of aperture even during data collection - Autofocus; can be activated by one click touch or used automatically before each measurement - Motorized xy sampling stage; adjustment range: 75x50mm; adjustment accuracy (=smallest step size): 0.1µm; repeatability: <1µm. Allows fully automated mapping and imaging measurements in all measurement modes. - Insertion plate for motorized stage to perform automated background 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>measurements in transmission, reflection and ATR and to perform automated OQ/PQ tests</p> <ul style="list-style-type: none"> - Fast CMOS camera; 2560 x 1920; QSXGA; 5 MegaPixel; 1/2"; large field of view: 1.5 x 1.2 mm, digital 4x zoom - Joystick - OPUS/ Video software with a special GUI guiding the operator through the sample inspection and data acquisition procedure - OPUS/3D for data processing, evaluation and visualization - OPUS/MAP software for control of the motorized xy-stage - Internal validation unit for automated OQ/PQ testing with reference standards 			
2	<p>Spectral Range Extension</p> <p>W304/LM</p> <p>Spectral range extension to 7,800-450cm⁻¹ includes KBr optics (beam splitter and windows) in lieu of ZnSe and broad band MCT detector D315015/BP in lieu of mid band MCT D316015/BP only available for new LUMOS; option can not be upgraded on existing LUMOS</p>	1PC		
3	<p>Objectives</p> <p>S777/LM-</p> <p>without motorized ATR crystal</p> <p>price reduction</p>	1PC		
4	<p>OPUS Spectroscopy Software</p> <p>O/IR+</p> <p>OPUS/IR, FT-IR Spectroscopy Software Package</p> <p>OPUS is an integrated spectroscopy software for laboratory and process control.</p> <p>OPUS is easy to use:</p> <ul style="list-style-type: none"> - Configurable user interface and access to executable functions - Automatic consistency-test of measurement parameters - Multi Tasking: Measurement and data manipulation/evaluation at the same time - Automated atmospheric correction for water vapor and CO₂ in MIR without the need for reference spectra <p>OPUS delivers reliable results in a short time:</p> <ul style="list-style-type: none"> - Single and repeated measurements, auto sampler support - Many interactive functions for comfortable data processing and evaluation, e.g. <ul style="list-style-type: none"> - Normalization, calculate derivative and average spectra, spectra subtraction - Spectrum calculator - Curve fit - Peak Pick - Spectra interpretation tool - Quick Compare spectra - Search spectra in a library, create your own libraries - Free starter library 	1PC		



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<ul style="list-style-type: none"> - Analyze peak areas and heights, quantitative analysis (Lambert-Beer's Law) - Automated multi step evaluation of spectra (MultiEvaluation) - Predefined print layouts, customizable print layouts - Conversion of files to different file formats (eg JCAMP) - Easy data export to other programs <p>OPUS is a validated software and supports the validation of the spectrometer:</p> <ul style="list-style-type: none"> - Automated OQ and PQ testing - Permanent instrument status indicator, online monitoring of system performance <p>OPUS is compliant to cGMP/GLP:</p> <ul style="list-style-type: none"> - Multi level user management, log-in with user name and password - Audit trail (history log function) - All data, incl. manipulation and evaluation results, stored in ONE file - Electronic signature of spectra and methods <p>OPUS supports user during daily routine work:</p> <ul style="list-style-type: none"> - Run, create and edit macros and VB scripts - Automated execution of repeated actions via calendar - Lab journal functionality - Online help - Multimedia FT-IR tutorial <p>This OPUS software package is included in the standard delivery of the spectrometer system. Spectra viewer software is available free of charge.</p>			
5	<p>O/3D+</p> <p>OPUS/3D, Software package for 3D data processing, evaluation and visualization:</p> <ul style="list-style-type: none"> - broad variety of 2D and 3D views for 3D and 4D data, like: display 3D, false colour and contour plots, traces in variable size - IR and Raman images can be displayed in 2D and 3D on top of or next to the visible/video image of the sample - calculation and presentation of RGB images - correlation of 3D data with single component spectra - extraction of single files from 3D data and creation of 3D data from single files - principal component analysis (PCA) of 3D data; calculation of loadings and factors 	1PC		
6	<p>O/MAP+</p> <p>OPUS/MAP, software package for control of x-y sample stages.</p>	1PC		
7	<p>O/SR-N</p> <p>OPUS/SEARCH, Extended Search Software Package</p> <p>For editing structures and structure search the OPUS/STRUCTURE package is required.</p>	1PC		
8	<p>O/VID+</p> <p>OPUS/VIDEO, Software package for video-interactive measurements:</p> <ul style="list-style-type: none"> - control for data acquisition of IR/Raman spectra and visible/video images - control of IR/Raman microscope functionality - automated mapping of irregular, line and rectangular grids - live view of spectra before measurement 	1PC		



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<ul style="list-style-type: none"> - acquisition and assembling of overview images - data storage of spectra, IR/Raman images, visible images and annotations within one file 			
	Validation software			
9	OVAL OPUS/VALIDATION Consisting of: <ul style="list-style-type: none"> - 21 CFR Part 11 compliance - access to validated OPUS functions - OPUS/VALIDATION user manual 	1PC		
	Sadtler Libraries			
10	83623 Automobile paint chips library 1,990 spectra, Sadtler, PN:460300	1PC		
	Data Systems			
11	CS81/25+ Data system, Ultra Slim desktop "Intel" Core 2 Duo processor, >3GHz, 4GB RAM 250GB HDU or better, 8xDVD/Lightscribe Drive, 21.5" TFT display. Ports: USB 2.0 (10x), PS/2 (2), RJ-45 Network (1 + 1 USB-Ethernet Adapter), VGA, DisplayPort, line in, line out, mini PCIe. Expansion: only for one m-PCIe card, MXM(graphics) and m-SATA(disk). Operating System: Windows 7 Professional or better. (only available with order of spectrometer)	1PC		
	Services with orders			
12	S950+ Installation on-site included in the price of the system (including travel charges, inland) Note: interfacing to a customer's network requires an additional po	1PC		
	Services and Support			
13	S881 Warranty Extension to 10 Years for Interferometer Covers replacement of defective parts of the scanning mechanism of the interferometer. The warranty starts with delivery of the spectrometer. Valid for TENSOR, VERTEX spectrometer series and MultiRAM.	1PC		
14	S881-L Warranty Extension to 10 Years for laser Covers parts in case of laser defects. The warranty starts with delivery of the spectrometer.	1PC		



Item	Material/Description	Quantity	Unit price USD	Amount USD
15	S881-S Warranty Extension to 5 Years for MIR source Covers material costs in case of source defects. The warranty starts with delivery of the spectrometer.	1PC		
16	S9200/LM Full service contract for LUMOS FTIR microscope Includes one preventive maintenance service per year, service, repair, spares and travel costs (inland). Re-validation is excluded. Details: see contract text. Extensions required for additional measurement options. Price per contract year	2PC		
Training Courses				
17	S710-US Bruker Optics Training course for the FTIR (FIR, MIR, NIR, FT Raman) Dispersive Raman and Minispec product lines. These training courses include hardware, software and applications training. Training courses locations can vary between our Houston, Texas facility and our Billerica, Massachusetts Facility. Per person, Travel and hotel expenses are NOT included in the listed price. Dates and times for these training course can be found on our website: http://www.bruker.com/service/education-training/training-courses/vibrational-optical-spectroscopy/north-america.html or by calling 1-888-4BRUKER	1PC		



Item	Material/Description	Quantity	Amount USD
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OPTIONAL ACCESSORIES

NOT included in the total listed above.

Objectives

18	S777/LM-	1 PC	
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Remove this selection from the quote to include the motorized ATR crystal
[new price will reflect a 12% discount on this item]

Polarizers

19	A775/LM	1 PC	
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Motorized polarizer and analyzer
For LUMOS with high accurate positioning
- includes optomechanical and electronic implementation
- polarizer and analyzer are software controlled
This option cannot be upgraded after installation

Bruker Libraries

20	BEG	1 PC	
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BRUKER Explosives - Library
42 Spectra of explosives and precursors
(requires OPUS version 4 or higher)

21	BDG	1 PC	
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BRUKER Pharma Library, 400 spectra
(requires OPUS version 4 or higher)

22	1014687	1 PC	
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FT-IR spectrallibrary for Pharmacies
350 spectra, measured with diamond ATR,
spectral range 4,000-400cm⁻¹

23	1019673	1 PC	
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BRUKER 10,000 plus spectra library
with 10,000 entries of chemical, pharmaceutical, polymer and forensic relevant
substances.

The database includes transmission and ATR spectra of solids, fibres and
liquids.

(gas spectra aren't included!)

24	I24030	1 PC	
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Natural Fibers Library
recorded with the Helios-ATR-accessory

25	I26933	1 PC	
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BRUKER Synthetic Fibers ATR-Library
about 333 spectra

26	UDG	1 PC	
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Item	Material/Description	Quantity	Amount USD
	Georgia State Crime Laboratory Drug Library approx. 2,000 spectra (requires OPUS version 4 or higher)		
	Sadtler Libraries		
27	17509 Adhesives and Sealants (subset A) library 520 spectra, Sadtler, PN:423000	1 PC	
28	17512 Canadian forensic library 3,490 spectra, Sadtler, PN:421200	1 PC	
29	17515 Fibers and textile chemicals library 480 spectra, Sadtler, PN:420300	1 PC	
30	17528 Prepared and prescription drugs library 880 spectra, Sadtler, PN:445700	1 PC	
31	17546 Adhesives and sealants library 2,070 spectra, Sadtler, PN:433000	1 PC	
32	301260 Commonly Abused Drugs (Acid/Base) library 580 spectra, Sadtler, PN:421400	1 PC	
33	83616 Fibers by Microscope library 450 spectra, Sadtler, PN:436400	1 PC	
34	83624 Enhanced Georgia state crime lab library 1,910 spectra, Sadtler, PN:460400	1 PC	
35	1001904 Explosive Materials library 720 spectra, Sadtler, PN:438800	1 PC	
36	1001916 HAZMAT Database 410 spectra, Sadtler, PN:438900	1 PC	
37	1014032 ATR of Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447800	1 PC	
38	1014036 Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447700	1 PC	
	S.T.Japan Libraries		
39	1005942	1 PC	



Item	Material/Description	Quantity	Amount USD
	ATR-FTIR Aldrich® Database 18,513 spectra, S.T. Japan, PN:10001		
40	1025048 ATR-FTIR-Library COMPLETE (ATR-LIB-COMplete+) includes ATR spectra from polymers, monomers, additives, plasticizer, fillers, building materials, cosmetics, excipients, organic and inorganic chemicals, biochemicals, fibres, proteins, fatty acids, lipids, ingredients, natural products, silicon containing compounds, solvents, pesticides, pollutants, semiconductors, dyes, paints, coatings, food, food additives, minerals, lubricants, surfactants, kidney stones, pharmaceuticals and drugs. > 26,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1 PC	
41	1025051 ATR-FTIR Forensics Library (ATR-LIB-FORENSICS+) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1 PC	
42	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014	1 PC	
43	1005984 Hazardous Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 2,664 spectra, S.T. Japan, PN:50017	1 PC	
44	1005985 Hazardous and Toxic Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 6,604 spectra, S.T. Japan, PN:50018	1 PC	
45	1005986 Pharmaceuticals, Drugs and Antibiotics library FTIR SDBS application libraries (KBr, Liquid film), 2,806 spectra, S.T. Japan, PN:50020	1 PC	
46	1009302 White Powders Spectra Database 697 spectra, S.T. Japan, PN:30023	1 PC	
47	1019199 FTIR Paints Spectra Database 2,507 spectra, S.T. Japan, PN:30026	1 PC	

Bruker Optics Response to WVSP Solicitation DPS1425

Option 3

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
Vendor Phone: 978-439-9899

Contact Name: Diane Allen/Bruker Optics, Inc
Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics Inc. Response to WVSP Solicitation # DPS1425

Vendor Name: Bruker Optics, Inc
Vendor Address: 19 Fortune Dr.
Billerica, MA 01821
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Address: 2623 Caulfield Ct
Frederick, MD 21701
Contact Phone: 301-360-9868 [Office]
847-687-1495 [Mobile]
Contact Email: dda@brukeroptics.com

Bruker Optics proposal is for the LUMOS standalone/integrated FTIR microscope.
There are three optional proposals which vary in the selection of library databases.
Each proposal contains the following:

3.1.1.1 Fully automated FTIR microscope with validation (21CFR11 compliant) and simultaneous viewing and collection

3.1.1.2 Integrated FTIR sealed and desiccated

Permanently aligned interferometer with a 10-year warranty, KBR/Ge optics

7800-450 cm⁻¹ spectral range; PC-controlled, automatically selectable range

User-replaceable high-intensity source & desiccant

Permanent laser for frequency calibration; 10-year warranty

High speed 24-bit ADC

Automated transmission/reflection objectives and automated condenser

Optional ATR objective (better than the low resolution crystal specified in the bid)

Automated full-view aperture

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Motorized joystick

FTIR background and standards plate

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5-year warranty on source
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3.1.5 & 6. Purchase as many years of support/maintenance as you like; parts, labor and travel are free-of-charge and 1 PM visit per year is included!



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER
DPS1425

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
TARA LYLE 304-558-2544

*A15111245 978-439-9899

BRUKER OPTICS INC
19 FORTUNE DRIVE

BILLERICA MA 01821

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

DATE PRINTED
04/24/2014

BID OPENING DATE: 05/21/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT						
<p>THE WEST VIRGINIA STATE PURCHASING DIVISION ON BEHALF OF THE WEST VIRGINIA STATE POLICE, IS SOLICITING BIDS FOR A ONE-TIME PURCHASE OF AN INTEGRATED INFRARED MICROSCOPE AND OTHER RELATED ACCESSORIES, PER THE ATTACHED DOCUMENTATION.</p> <p>ATTACHMENTS INCLUDE:</p> <ol style="list-style-type: none">1. INSTRUCTIONS TO VENDORS SUBMITTING BIDS2. GENERAL TERMS AND CONDITIONS3. DPS1425 SPECIFICATIONS4. CERTIFICATION AND SIGNATURE PAGE5. PURCHASING AFFIDAVIT6. VENDOR PREFERENCE CERTIFICATE <p>THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.</p>												
0001	1	EA		490-58 INTEGRATED INFRARED MICROSCOPE	\$98,823.83	\$85,512.97						
<table border="1"><tr><td>SIGNATURE</td><td>TELEPHONE</td><td>DATE</td></tr><tr><td>TITLE</td><td>FEIN</td><td>ADDRESS CHANGES TO BE NOTED ABOVE</td></tr></table>							SIGNATURE	TELEPHONE	DATE	TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
SIGNATURE	TELEPHONE	DATE										
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE										

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER
DPS1425

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF
TARA LYLE 304-558-2544

*A15111245 978-439-9899

BRUKER OPTICS INC
19 FORTUNE DRIVE

BILLERICA MA 01821

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

DATE PRINTED
04/24/2014

BID OPENING DATE: 05/21/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0002	1	EA		205-43	\$1,732.40	\$1,524.51
				COMPUTER WORKSTATION		
0003	1	EA		205-43	\$4,132.20	\$3,636.34
				AUTOMOTIVE PAINT CHIP LIBRARY		
0004	1	EA		939-22	\$10,394.40	\$9,147.07
				2ND YEAR SUPPORT/MAINTENANCE		
0005	1	EA		939-22	\$10,394.40	\$9,147.07
				3RD YEAR SUPPORT/MAINTENANCE		
***** THIS IS THE END OF RFQ DPS1425 ***** TOTAL:						\$100,305.39
SIGNATURE						
TITLE				TELEPHONE		DATE
FEIN				ADDRESS CHANGES TO BE NOTED ABOVE		

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

000024

DPS 1425 Pricing Page

Item #	Description	Quantity	Unit Price	Extended Price
3.1.1	Integrated Infrared Microscope, Nicolet IN10 or equal	1 ea	\$ \$98,823.83	\$85,512.97
3.1.2	Workstation, Dell Optiplex or equal	1 ea	\$ \$1,732.40	\$1,524.51
3.1.3	Automotive Paint Chl Library, Biorad or equal	1 ea	\$ \$4,132.20	\$3,636.34
3.1.4	OMNIC Spectra iS50 Edition ir Equal	1 ea	\$ \$Your option	\$your option less 12%
3.1.5	Year Two support/maintenance	1 yr	\$ \$10,394.40	\$9,147.07
3.1.6	Year Three support/maintenance	1 yr	\$ \$10,394.40	\$9,147.07
Failure to use this form may result in disqualification.			Total Cost:	\$ \$100,305.39+databases with free shipping
Bidder / Vendor Information:				
Name: _____		Name: Bruker Optics, Inc _____		
Address: _____		Address: 19 Fortune Dr. _____		
Phone #: _____		Billerica, MA 01821 _____		
Email Address: _____		Phone: 978-439-9899 _____		
		Email: dda@brukeroptics.com _____		
Contact Coordinator Information:				
Name: _____		_____		
Address: _____		Name: Diane Allen/Bruker Optics, Inc _____		
Phone #: _____		Address: 2623 Caulfield Ct _____		
Email Address _____		Frederick, MD 21701 _____		
		Phone: 301-360-9868 [Office] _____		
		847-687-1495 [Mobile] _____		
		Email: dda@brukeroptics.com _____		

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DPS1425

000000

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Brucker Optics

Company

Devin D. Smith

Authorized Signature

5-28-2014

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Brucker OpEics
(Company)

Diane D. Allen
(Authorized Signature)

Diane D. Allen, Regional Sales Manager
(Representative Name, Title)

301-360-9868 // 978-663-9177
(Phone Number) (Fax Number)

5-27-2014
(Date)

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form of business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Brucker Optics Inc.
Authorized Signature: [Signature] Date: 5-28-2014

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ____ day of _____, 20__.

My Commission expires _____, 20__.

AFFIX SEAL HERE

NOTARY PUBLIC _____

Purchasing Affidavit (Revised 07/01/2012)

I will fax over a notarized copy before the bid opening tomorrow.
[Signature]

Bruker Option 3:

Sold To
West Virginia State Police
Crime Laboratory

Ship To
West Virginia State Police
Crime Laboratory

725 Jefferson Road
CHARLESTON WV 25309-1698
USA

725 Jefferson Road
CHARLESTON WV 25309-1698
USA

Quotation no. 1220024500
Document date 05/28/2014
Valid until 07/27/2014
Delivery time after
Receipt of order approx. 30 days

Your Customer No. 1087468
Contact Person Diane Allen
Telephone (978) 439-9899
Tel. ext. 5458
Email diane.allen@brukeroptics.com

Includes 1 Full Year of Warranty on all parts, service, travel & maintenance and the same protection plus 1 annual PM service visit for 2 additional years.

Includes Additional Free Extended Warranties for Low Cost-of-Ownership:

- 10-year warranty on our maintenance-free Rocksolid (TM) interferometer!
- 10-year warranty on our solid-state laser!
- 5-year warranty on our Globar Source!
- Full 1-year warranty on all other items!

* Warranties are for parts and labor!

FOB Destination/Shipping at no charge to WVSP -- supercedes any other shipping description in this document.

Item	Material/Description	Quantity	Unit price USD	Amount USD
	Spectrometer			
1	LUMOS Standalone FT-IR microscope For routine and advanced applications with full automation. All components of the LUMOS are motorized. The LUMOS is a very compact FT-IR microscope (width x height x depth: 30 x 64 x 52cm) including a FT-IR spectrometer with a permanently aligned RockSolid interferometer ensuring excellent sensitivity and wave length stability. Beside transmission and reflection, the LUMOS is also prepared for fully automated measurements in attenuated total reflection (ATR) using a motorized ATR crystal. Automation includes sample, background and calibration measurements. The LUMOS can be used for automated single point measurements but also for automated mapping and imaging. The very intuitive	1PC	86,620.00	86,620.00

Bruker Optics Inc.
19 Fortune Drive
Billerica, MA 01821
Phone: 978-439-9899
www.brukeroptics.com



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<p>OPUS software guides the user step by step through data acquisition and includes many features for effective data processing, data evaluation and data visualization. All essential optical and electronic components of the LUMOS are monitored continuously to provide highest sensitivity during full life time. In case of a component failure or when a test for OQ/PQ has expired, the operator is notified immediately. The LUMOS utilizes a diode laser and a RockSolid interferometer with a life time of over 10 years and an infrared light source with a life time of over 5 years. The only consumable for the LUMOS is the liquid nitrogen for the cooling of the sensitive MCT detector. To facilitate the usage of the LUMOS even in countries with high humidity, all included IR-transparent window material and the beam splitter are made from ZnSe which is fully inert against water vapor.</p> <p>Includes:</p> <ul style="list-style-type: none"> - Standalone FTIR spectrometer microscope with permanently aligned RockSolid interferometer (ZnSe-BMS; gold coated mirrors; life time >10 years) - Spectral resolution: better than 2cm⁻¹; option: better than 0.8cm⁻¹ - Spectral range: 7,000-650cm⁻¹ - Sealed and desiccated housing with ZnSe windows to be resistant against humidity; desiccant reusable; prepared for purge with dried air (not required) - Instrument tests for operational and performance qualification (OQ; PQ); including internal calibration procedures for spectral axes (polystyrene standard) - Permanent monitoring of all essential spectrometer components, system performance and humidity - Diode laser (diode, life time >10 years) - SiC glowbar source with long life time (>5 years) - Mid band MCT detector D316015/BP (7,000-650cm⁻¹; liquid N2 cooled, including preamplifier; True 24 bit ADC; Permavac) - IR and Vis illumination and focusing optics for transmission and reflection - Independent white light LED illumination for Vis in transmission and reflection with Köhler apertures for contrast enhancement - 8x Cassegrain objective for measurements in transmission, reflection and attenuated total reflection (ATR); NA (0.4-0.6), working distance (30mm); equipped with a motorized ATR crystal for automated ATR measurements with pressure control - Automated change of numerical aperture (NA) between IR (0.6) and Vis (0.4) mode - Automated change from IR to Vis mode. Permanent view of sample with positioned aperture even during IR data acquisition - Motorized condenser with automated adjustment for transmission (autofocus) and automated parking for reflection and ATR. - Motorized z drive for xy-stage - Motorized transparent knife-edge aperture with precise positioning; permanent view of aperture even during data collection - Autofocus; can be activated by one click touch or used automatically before each measurement - Motorized xy sampling stage; adjustment range: 75x50mm; adjustment accuracy (=smallest step size): 0.1µm; repeatability: <1µm. Allows fully automated mapping and imaging measurements in all measurement modes. - Insertion plate for motorized stage to perform automated background 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	measurements in transmission, reflection and ATR and to perform automated OQ/PQ tests - Fast CMOS camera; 2560 x 1920; QSXGA; 5 MegaPixel; 1/2"; large field of view: 1.5 x 1.2 mm, digital 4x zoom - Joystick - OPUS/ Video software with a special GUI guiding the operator through the sample inspection and data acquisition procedure - OPUS/3D for data processing, evaluation and visualization - OPUS/MAP software for control of the motorized xy-stage - Internal validation unit for automated OQ/PQ testing with reference standards			
	Spectral Range Extension			
2	W304/LM Spectral range extension to 7,800–450cm ⁻¹ includes KBr optics (beam splitter and windows) in lieu of ZnSe and broad band MCT detector D315015/BP in lieu of mid band MCT D316015/BP only available for new LUMOS; option can not be upgraded on existing LUMOS	1PC	1,448.40	1,448.40
	Objectives			
3	S777/LM- without motorized ATR crystal price reduction	1PC	-4,842.20	-4,842.20
	OPUS Spectroscopy Software			
4	O/IR+ OPUS/IR, FT-IR Spectroscopy Software Package OPUS is an integrated spectroscopy software for laboratory and process control. OPUS is easy to use: - Configurable user interface and access to executable functions - Automatic consistency-test of measurement parameters - Multi Tasking: Measurement and data manipulation/evaluation at the same time - Automated atmospheric correction for water vapor and CO ₂ in MIR without the need for reference spectra OPUS delivers reliable results in a short time: - Single and repeated measurements, auto sampler support - Many interactive functions for comfortable data processing and evaluation, e.g. - Normalization, calculate derivative and average spectra, spectra subtraction - Spectrum calculator - Curve fit - Peak Pick - Spectra interpretation tool - Quick Compare spectra - Search spectra in a library, create your own libraries - Free starter library	1PC	0.00	



Item	Material/Description	Quantity	Unit price USD	Amount USD
	<ul style="list-style-type: none"> - Analyze peak areas and heights, quantitative analysis (Lambert-Beer's Law) - Automated multi step evaluation of spectra (MultiEvaluation) - Predefined print layouts, customizable print layouts - Conversion of files to different file formats (eg JCAMP) - Easy data export to other programs <p>OPUS is a validated software and supports the validation of the spectrometer:</p> <ul style="list-style-type: none"> - Automated OQ and PQ testing - Permanent instrument status indicator, online monitoring of system performance <p>OPUS is compliant to cGMP/GLP:</p> <ul style="list-style-type: none"> - Multi level user management, log-in with user name and password - Audit trail (history log function) - All data, incl. manipulation and evaluation results, stored in ONE file - Electronic signature of spectra and methods <p>OPUS supports user during daily routine work:</p> <ul style="list-style-type: none"> - Run, create and edit macros and VB scripts - Automated execution of repeated actions via calendar - Lab journal functionality - Online help - Multimedia FT-IR tutorial <p>This OPUS software package is included in the standard delivery of the spectrometer system. Spectra viewer software is available free of charge.</p>			
5	O/3D+	1PC	0.00	
	<p>OPUS/3D, Software package for 3D data processing, evaluation and visualization:</p> <ul style="list-style-type: none"> - broad variety of 2D and 3D views for 3D and 4D data, like: display 3D, false colour and contour plots, traces in variable size - IR and Raman images can be displayed in 2D and 3D on top of or next to the visible/video image of the sample - calculation and presentation of RGB images - correlation of 3D data with single component spectra - extraction of single files from 3D data and creation of 3D data from single files - principal component analysis (PCA) of 3D data; calculation of loadings and factors 			
6	O/MAP+	1PC	0.00	
	OPUS/MAP, software package for control of x-y sample stages.			
7	O/SR-N	1PC	1,505.20	1,505.20
	<p>OPUS/SEARCH, Extended Search Software Package</p> <p>For editing structures and structure search the OPUS/STRUCTURE package is required.</p>			
8	O/VID+	1PC	0.00	
	<p>OPUS/VIDEO, Software package for video-interactive measurements:</p> <ul style="list-style-type: none"> - control for data acquisition of IR/Raman spectra and visible/video images - control of IR/Raman microscope functionality - automated mapping of irregular, line and rectangular grids - live view of spectra before measurement 			



Item	Material/Description	Quantity	Unit price USD	Amount USD
	- acquisition and assembling of overview images - data storage of spectra, IR/Raman images, visible images and annotations within one file			
	Validation software			
9	OVAL OPUS/VALIDATION Consisting of: - 21 CFR Part 11 compliance - access to validated OPUS functions - OPUS/VALIDATION user manual	1PC	2,598.60	2,598.60
	Sadtler Libraries			
10	83623 Automobile paint chips library 1,990 spectra, Sadtler, PN:460300	1PC	4,132.20	4,132.20
	Data Systems			
11	CS81/25+ Data system, Ultra Slim desktop "Intel" Core 2 Duo processor, >3GHz, 4GB RAM 250GB HDU or better, 8xDVD/Lightscribe Drive, 21.5" TFT display. Ports: USB 2.0 (10x), PS/2 (2), RJ-45 Network (1 + 1 USB-Ethernet Adapter), VGA, DisplayPort, line in, line out, mini PCIe. Expansion: only for one m-PCIe card, MXM(graphics) and m-SATA(disk). Operating System: Windows 7 Professional or better. (only available with order of spectrometer)	1PC	1,732.40	1,732.40
	Services with orders			
12	S950+ Installation on-site included in the price of the system (including travel charges, inland) Note: interfacing to a customer's network requires an additional po	1PC	0.00	
	Services and Support			
13	S881 Warranty Extension to 10 Years for Interferometer Covers replacement of defective parts of the scanning mechanism of the interferometer. The warranty starts with delivery of the spectrometer. Valid for TENSOR, VERTEX spectrometer series and MultiRAM.	1PC	0.00	
14	S881-L Warranty Extension to 10 Years for laser Covers parts in case of laser defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	



Item	Material/Description	Quantity	Unit price USD	Amount USD
15	S881-S Warranty Extension to 5 Years for MIR source Covers material costs in case of source defects. The warranty starts with delivery of the spectrometer.	1PC	0.00	
16	S9200/LM Full service contract for LUMOS FTIR microscope Includes one preventive maintenance service per year, service, repair, spares and travel costs (inland). Re-validation is excluded. Details: see contract text. Extensions required for additional measurement options. Price per contract year	2PC	10,394.40	20,788.80
Training Courses				
17	S710-US Bruker Optics Training course for the FTIR (FIR, MIR, NIR, FT Raman) Dispersive Raman and Minispec product lines. These training courses include hardware, software and applications training. Training courses locations can vary between our Houston, Texas facility and our Billerica, Massachusetts Facility. Per person, Travel and hotel expenses are NOT included in the listed price. Dates and times for these training course can be found on our website: http://www.bruker.com/service/education-training/training-courses/vibrational-optical-spectroscopy/north-america.html or by calling 1-888-4BRUKER	1PC	1,650.00	1,650.00
Total price net				115,633.40
Training Course Discount (Value)				-1,650.00
Percentage Discount				-12.00%
Total price incl. discount net				100,305.39

ANY OPTIONS CHOSEN FROM THE LIST OF OPTIONAL ACCESSORIES
WILL CARRY A 12% DISCOUNT -- INCLUDING THE LIBRARIES.



Item	Material/Description	Quantity	Amount USD
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OPTIONAL ACCESSORIES [ALL CARRY A 12% DISCOUNT IF SELECTED]:
Prices are NOT included in the total listed above.

Objectives

18	S777/LM- Remove this selection from the quote to include the motorized ATR crystal [new price will reflect a 12% discount on this item]	1 PC	-4,842.20
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Polarizers

19	A775/LM Motorized polarizer and analyzer For LUMOS with high accurate positioning - includes optomechanical and electronic implementation - polarizer and analyzer are software controlled This option cannot be upgraded after installation	1 PC	2,612.80
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Bruker Libraries

20	BEG BRUKER Explosives - Library 42 Spectra of explosives and precursors (requires OPUS version 4 or higher)	1 PC	985.48
21	BDG BRUKER Pharma Library, 400 spectra (requires OPUS version 4 or higher)	1 PC	898.86
22	1014687 FT-IR spectrallibrary for Pharmacies 350 spectra, measured with diamond ATR, spectral range 4,000-400cm ⁻¹	1 PC	710.00
23	1019673 BRUKER 10,000 plus spectra library with 10,000 entries of chemical, pharmaceutical, polymer and forensic relevant substances. The database includes transmission and ATR spectra of solids, fibres and liquids. (gas spectra aren't included!)	1 PC	2,612.80
24	I24030 Natural Fibers Library recorded with the Helios-ATR-accessory	1 PC	717.10
25	I26933 BRUKER Synthetic Fibers ATR-Library about 333 spectra	1 PC	724.20
26	UDG	1 PC	1,420.00



Item	Material/Description	Quantity	Amount USD
	Georgia State Crime Laboratory Drug Library approx. 2,000 spectra (requires OPUS version 4 or higher)		
	Sadtler Libraries		
27	17509 Adhesives and Sealants (subset A) library 520 spectra, Sadtler, PN:423000	1 PC	2,868.40
28	17512 Canadian forensic library 3,490 spectra, Sadtler, PN:421200	1 PC	4,231.60
29	17515 Fibers and textile chemicals library 480 spectra, Sadtler, PN:420300	1 PC	2,513.40
30	17528 Prepared and prescription drugs library 880 spectra, Sadtler, PN:445700	1 PC	3,379.60
31	17546 Adhesives and sealants library 2,070 spectra, Sadtler, PN:433000	1 PC	6,347.40
32	301260 Commonly Abused Drugs (Acid/Base) library 580 spectra, Sadtler, PN:421400	1 PC	934.36
33	83616 Fibers by Microscope library 450 spectra, Sadtler, PN:436400	1 PC	1,846.00
34	83624 Enhanced Georgia state crime lab library 1,910 spectra, Sadtler, PN:460400	1 PC	1,689.80
35	1001904 Explosive Materials library 720 spectra, Sadtler, PN:438800	1 PC	3,692.00
36	1001916 HAZMAT Database 410 spectra, Sadtler, PN:438900	1 PC	2,584.40
37	1014032 ATR of Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447800	1 PC	2,229.40
38	1014036 Steroids, Androgens, Progestins and Estrogens library 300 spectra, Sadtler, PN:447700	1 PC	2,229.40
	S.T.Japan Libraries		
39	1005942	1 PC	10,000.00



Item	Material/Description	Quantity	Amount USD
	ATR-FTIR Aldrich® Database 18,513 spectra, S.T. Japan, PN:10001		
40	1025048 ATR-FTIR-Library COMPLETE (ATR-LIB-COMPLETE+) includes ATR spectra from polymers, monomers, additives, plasticizer, fillers, building materials, cosmetics, excipients, organic and inorganic chemicals, biochemicals, fibres, proteins, fatty acids, lipids, ingredients, natural products, silicon containing compounds, solvents, pesticides, pollutants, semiconductors, dyes, paints, coatings, food, food additives, minerals, lubricants, surfactants, kidney stones, pharmaceuticals and drugs. > 26,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1 PC	6,702.40
41	1025051 ATR-FTIR Forensics Library (ATR-LIB-FORENSICS+) includes ATR spectra from organic and inorganic chemicals, biochemical, ingredients, natural products, fibers, proteins, fatty acids, lipids, cosmetics, solvents, pesticides, semiconductors, dyes, paints, coatings, food, food additives, minerals, pollutants, semiconductors, lubricants, surfactants, pharmaceuticals and drugs. > 10,000 ATR-FTIR-Spectra; requires OPUS 7.2 or higher; only available with order of spectrometer	1 PC	2,399.80
42	1005981 Forensic library FTIR SDBS application libraries (KBr, Liquid film), 1,555 spectra, S.T. Japan, PN:50014	1 PC	2,130.00
43	1005984 Hazardous Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 2,664 spectra, S.T. Japan, PN:50017	1 PC	3,100.00
44	1005985 Hazardous and Toxic Chemicals library FTIR SDBS application libraries (KBr, Liquid film), 6,604 spectra, S.T. Japan, PN:50018	1 PC	4,930.00
45	1005986 Pharmaceuticals, Drugs and Antibiotics library FTIR SDBS application libraries (KBr, Liquid film), 2,806 spectra, S.T. Japan, PN:50020	1 PC	2,660.00
46	1009302 White Powders Spectra Database 697 spectra, S.T. Japan, PN:30023	1 PC	1,300.00
47	1019199 FTIR Paints Spectra Database 2,507 spectra, S.T. Japan, PN:30026	1 PC	3,464.80

Quotation no: 1220024500



General Terms and Conditions

A) GENERAL CONDITIONS

- 1) The terms and conditions contained herein constitute the sole terms and conditions governing the purchase of any products or services by the customer identified on the face hereof ("Customer") from Bruker Optics Inc. ("BOPT"). Customer may acknowledge its acceptance of these terms and conditions by returning a signed copy of the quotation, placing an order with BOPT or by its receipt of any products from BOPT. Any terms and conditions different from or in addition to those contained herein, including any contained in Customer's purchase order or in any other documents furnished by Customer, shall be of no force or effect in connection with the sale of any products by BOPT to Customer and BOPT hereby objects to and rejects in their entirety all such terms and conditions, as BOPT's agreement to sell any products to Customer is expressly made conditional upon the use of these terms and conditions.
- 2) The rights and obligations of the parties shall be governed in all respects by the laws of the Commonwealth of Massachusetts and the parties shall submit themselves to the jurisdiction thereof.
- 3) Purchase orders are subject to written acceptance by BOPT.

B) PRICE AND QUOTATION

- 1) All quotations are firm for a period of forty five (45) days, unless otherwise specified in the quotation.
- 2) All prices are FOB Billerica, Massachusetts. Responsibility passes to Customer upon delivery to the transportation company and risk of damage or loss following such delivery shall be Customer's. Title to all purchased items passes to Customer upon delivery to the transportation company.
- 3) Prices quoted do not include city, state or federal sales or similar taxes and duties. Customer is responsible for all such taxes and duties.
- 4) This quotation is only valid when the system is purchased and used in the USA, Canada or Puerto Rico. This quotation becomes null and void if Customer ships the system outside the USA, Canada or Puerto Rico.

C) DELIVERY AND SHIPMENT

- 1) Delivery time is computed from the date of acknowledgement by BOPT of Customer's written order.
- 2) BOPT shall not be liable for delivery delays due to circumstances beyond its control, including, but not limited to, fire, flood, war, labor disputes, accidents or delay of carriers, subcontractors or suppliers.

D) TERMS AND PAYMENT

- 1) 30% due on order, remainder due within 30 days after the date thereof.
- 2) Orders shipped and invoiced in separate parts shall be due upon receipt of each such part.
- 3) Customer hereby grants BOPT a purchase money security interest in all items purchased hereunder. In the event Customer fails to make payment for any item purchased hereunder within the required time period, BOPT shall have the right to exercise all remedies of a secured party under the laws of the Commonwealth of Massachusetts.

E) EXPORT COMPLIANCE

Customer understands that exports and re-exports of BOPT products and any related software, technical data, service, or technical assistance (individually, an "Item" and, collectively, the "Items") are subject to U.S. and foreign trade controls, customs and economic sanctions laws, regulations, rules and orders (collectively, "Export Control Laws"). In addition to any other remedy it may have, BOPT may suspend and/or cancel the export, delivery, installation, and/or any maintenance or repair service of any Item if (a) BOPT has not received all export-related documentation requested by BOPT, including end-user certificates, (b) BOPT has not received the governmental approvals that BOPT deems to be required, or (c) BOPT believes that such activity may violate any Export Control Laws or BOPT's own compliance policies. Customer shall only use the Items for non-military, peaceful purposes. Customer shall not export, re-export or otherwise transfer or provide any Item in contravention of any Export Control Law or any end-user certificate provided by Customer, including to an embargoed or otherwise sanctioned country. Customer must notify BOPT before providing any technical data to BOPT that is controlled under any Export Control Law. BOPT will not be liable to Customer for any loss or expense if Customer fails to comply with any Export Control Law. Customer shall indemnify BOPT for all losses, costs, claims, damages and expenses (including attorney fees and expenses) arising from Customer's violation or alleged violation of any Export Control Law.

F) INSTALLATION

Systems, parts and accessories DO NOT include installation unless otherwise provided in this quotation. Acceptance shall occur upon the demonstration of the compliance of the system with its specifications. In the event Customer has not accepted a system within ninety (90) days after receipt of the system by Customer, through no fault on the part of BOPT, the system shall be deemed to be accepted by Customer as of the expiration of such ninety (90) days.

G) WARRANTY

All standard products manufactured and sold by BOPT carry a limited warranty. Systems are warranted for one year to be free of defects in material and workmanship. Services, parts, and accessories purchased separately from systems are warranted for ninety (90) days. The applicable warranty period for systems begins upon system acceptance, but not later than three (3) months after delivery. The applicable warranty period for services, parts and accessories (other than those purchased with a complete system) begins upon delivery.

This warranty is subject to the following limitations:

- 1) This warranty applies only to defects in material and workmanship does not include such items as routine maintenance, adjustments, or recalibration.
- 2) For items supplied but not manufactured by BOPT, the warranty of the manufacturer will be transferred to the Customer.
- 3) Any loss, damage, and/or instrument malfunction relating in any way to the following is not covered:
 - a) Shipping or storage;
 - b) Accident, abuse, alteration, misuse, or neglect;
 - c) Breakage or abuse of parts;
 - d) Operation other than in accordance with correct operating procedures;
 - e) Tampering with the system;
 - f) Lack of routine care and maintenance;
 - g) Inadequate utility service; or
 - h) Chemical action or contamination.
- 4) In-warranty repaired or replacement parts are covered by warranty only for the remaining unexpired portion of the original warranty period.

All claims under warranty must be made promptly to BOPT within the warranty period. Such claims should include the product type and serial numbers, and a full description of the circumstances giving rise to the claim. BOPT reserves the right to determine whether to make repair under valid warranty claims by (a) sending a field service engineer to the site, or (b) having Customer send the defective item to an authorized facility. Any item sent to an authorized facility for examination shall be sent prepaid using a BOPT accepted method of transportation at the expense of Customer. Customer shall be responsible for all damage resulting from improper packing or handling, and for loss in transit.

The foregoing constitutes the sole warranty made by BOPT, express or implied, and states the sole liability of BOPT and the sole remedy of Customer for breach of warranty. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY EXCLUDED.

H) LIMITATION OF LIABILITY

Reasonable care must be used by Customer to avoid hazards. BOPT expressly disclaims responsibility for loss or damage caused by use of its products other than in accordance with proper operating procedures. IN NO EVENT SHALL BOPT BE LIABLE FOR INCIDENTAL, SPECIAL, INDIRECT, CONSEQUENTIAL OR RESULTING LOSS OR DAMAGE OF ANY KIND, HOWSOEVER CAUSED. BOPT'S LIABILITY FOR DAMAGES SHALL NOT EXCEED PAYMENT, IF ANY RECEIVED BY BOPT FOR THE UNIT OR PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED, AS THE CASE MAY BE, WHICH IS THE SUBJECT OF THE CLAIM OR DISPUTE.

Additional Information About BOPT

DUNS: 88-362-9271

TIN: 04-3275192

CAGE CODE: 1FFD9

BOPT holds a valid registration in ORCA

BOPT holds a valid registration in the Central Contract Registration (CCR)