



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

Request for Quotation

RFQ NUMBER
LBS90127

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
ROBERTA WAGNER
304-558-0067

VENDOR
 *709065825 800-926-3000
VARIAN INC
2700 MITCHELL DRIVE

WALNUT CREEK CA 94598

SHIP TO
HEALTH AND HUMAN RESOURCES
ENVIRONMENTAL CHEMISTRY LAB

4710 CHIMNEY DRIVE
CHARLESTON, WV
25302 **304-558-3530**

DATE PRINTED 04/07/2009	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
BID OPENING DATE: 05/07/2009		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		493-96	116,315. ⁰⁰	116,315. ⁰⁰
INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETER REQUEST TO PURCHASE AN INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETER (ICP-MS) INSTRUMENT TO ANALYZE METALS IN DRINKING WATER TO FULFILL REQUIREMENTS OF US EPA REGULATIONS FOR COMPLIANCE MONITORING OF PUBLIC WATER SYSTEMS AND OF PRIVATE WELLS. CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN. BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER. INQUIRIES: WRITTEN QUESTIONS SHALL BE ACCEPTED THROUGH CLOSE OF BUSINESS ON 4/21/2009. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER OR E-MAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, E-MAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRIES TO: ROBERTA WAGNER						

RECEIVED
 2009 MAY -5 AM 9:56
 WV PURCHASING DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: **SEE PAGE NO. 3** TELEPHONE: DATE: TITLE: **CONTRACT MANAGER** FEIN: **17-6501995** ADDRESS CHANGES TO BE NOTED ABOVE

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



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LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25311</p> <p>FAX: 304-558-4115 E-MAIL: ROBERTA.A.WAGNER@WV.GOV</p> <p style="text-align: center; font-size: 2em; font-weight: bold;">ORIGINAL</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="padding-left: 40px;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>PLEASE NOTE: A CONVENIENCE COPY WOULD BE APPRECIATED.</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p>						
<p>BUYER:-----RW/FILE 22-----</p> <p>RFQ. NO.:-----LBS90127-----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TITLE	FEIN	TELEPHONE	DATE
SEE P. 3	CONTRACTS MANAGER	17-0501995	925.945.2106	5.4.09

ADDRESS CHANGES TO BE NOTED ABOVE

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

Instrument Specifications:

1. Inductively Coupled Plasma – Mass Spectrometer (ICP-MS) instrument to analyze metals in drinking water to fulfill requirements of USEPA regulations for compliance monitoring of public water systems and of private wells. ICP-MS is a class of technology offered by several vendors listed below. This instrument is to be purchased for use by the Office of Laboratory Services / Environmental Chemistry Laboratory at the Big Chimney facility in support of West Virginia's Drinking Water Program.
2. Technology must be compatible with and fulfill the requirements of US EPA method 200.8, including pneumatic nebulization sample introduction, and a quadrupole mass spectrometer.
3. ICP-MS must be equipped with a system software controlled autosampler capable of random access.
4. Must be fully automated for analysis (excluding digestion) with necessary software provided for system controller that is compatible with Windows XP, with assurance that data can be exported to Laboratory Information Management System (LIMS).
5. Must include a re-circulating water chiller or equivalent device for cooling system components of ICP-MS instrument.
6. Instrument must be a floor-mounted model with wheels to conserve available bench space and to facilitate mobility and serviceability.
7. Instrument must come equipped with a PC controlled, variable temperature, cooled spray chamber to enhance stability and reduce oxide ion interferences; or equivalent technology.
8. The vacuum system must be fully contained within the instrument to conserve floor space.

Installation/Training Requirements:

1. Vendor must install instrument equipment within 90 days of its delivery date at the Big Chimney Environmental Chemistry Laboratory facility location. Cost of installation must be included in the bid price.
2. Vendor must provide on-site user training on all basic aspects of the equipment and software and must be included in the cost of the equipment package in the bid price. This On-site basic training must include all rudimentary aspects of instrument operation with respect to set up and running analytical methods via software operations, as well as routine maintenance, exclusive of theory and advanced operations techniques. This basic training must be provided by the vendor upon completion of installation and must last at least one day.
3. The Vendor must provide an advanced and complete training course that will last at least 2 days. This course must include theory of ICP-MS, workshops demonstrating all

aspects of proprietary software capabilities, and hands-on lab work. The cost for this course must be included in the submitted total bid price.

4. Vendor must provide all manufacturers user manuals upon delivery.

Warranty Requirements:

1. Must include at least one year equipment warranty to include parts and labor and must be provided at no additional cost.
2. Software support must be included as part of one-year warranty. Vendor must agree to provide software support for any subsequent service agreements that may follow the original one-year standard warranty.
3. Warranty must include on-site service including labor, travel time, and expenses with a 24-hour on-site response time at no extra cost.
4. Vendor must include all warranty information upon delivery.
5. Warranty to begin upon completion of installation and on-site training.

Shipping and Delivery Requirements:

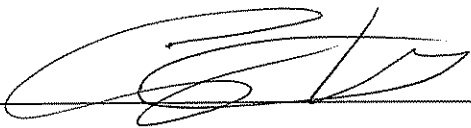
1. ICP-MS and its components to be "inside delivery" by freight delivery company.
2. Shipping terms to be F.O.B. Destination, Prepaid unless vendor states differently when submitting quotation. If shipping costs are incurred, they must be included as a separate line item and a part of the total cost of the equipment.
3. Payment will be made in arrears.

RFQ COST SHEET

Bidders shall provide a cost for the following:

Inductively Coupled Plasma-Mass Spectrometer(ICP-MS) System	\$114,889.00
On-Site Basic User Training(1 Day at installation of equipment)	\$ Included in above pkg price of ICP-MS
Advanced Training Course (2 Days)	\$ 1,426.00
Total Cost	\$116,315

The award will be made to the vendor with the lowest overall total cost of the equipment which meets all requested specifications and requirements.



Vendor Signature

5.1.09

Date

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that: 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor must make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:

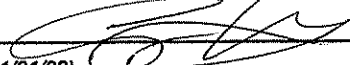
Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

Vendor's Name: VARIAN, INC

X Authorized Signature:  Date: 5.4.09


Purchasing Affidavit (Revised 01/01/09)

X EXCEPT AS OTHERWISE NOTED IN LETTER DTD 5/4/09

ATTACHMENT
P.O.# LB590127

This agreement constitutes the entire agreement between the parties, and there are no other terms and conditions applicable to the licenses granted hereunder.

* Agreed

 5/1/09
Signature Date

Contracts, mgr.
Title

Varian, Inc.
Company Name

Signature Date

Title

Agency/Division

* ACCEPT AS OTHERWISE
NOTED IN VARIAN'S LETTER
DTD 5.4.09

WV-96
Rev. 10/07

AGREEMENT ADDENDUM

In the event of conflict between this addendum and the agreement, this addendum shall control:

1. **DISPUTES** - Any references in the agreement to arbitration or to the jurisdiction of any court are hereby deleted. Disputes arising out of the agreement shall be presented to the West Virginia Court of Claims.
2. **HOLD HARMLESS** - Any clause requiring the Agency to indemnify or hold harmless any party is hereby deleted in its entirety.
3. **GOVERNING LAW** - The agreement shall be governed by the laws of the State of West Virginia. This provision replaces any references to any other State's governing law.
4. **TAXES** - Provisions in the agreement requiring the Agency to pay taxes are deleted. As a State entity, the Agency is exempt from Federal, State, and local taxes and will not pay taxes for any Vendor including individuals, nor will the Agency file any tax returns or reports on behalf of Vendor or any other party.
5. **PAYMENT** - Any references to prepayment are deleted. Payment will be in arrears.
6. **INTEREST** - Should the agreement include a provision for interest on late payments, the Agency agrees to pay the maximum legal rate under West Virginia law. All other references to interest or late charges are deleted.
7. **RECOUPMENT** - Any language in the agreement waiving the Agency's right to set-off, counterclaim, recoupment, or other defense is hereby deleted.
8. **FISCAL YEAR FUNDING** - Service performed under the agreement may be continued in succeeding fiscal years for the term of the agreement, contingent upon funds being appropriated by the Legislature or otherwise being available for this service. In the event funds are not appropriated or otherwise available for this service, the agreement shall terminate without penalty on June 30. After that date, the agreement becomes of no effect and is null and void. However, the Agency agrees to use its best efforts to have the amounts contemplated under the agreement included in its budget. Non-appropriation or non-funding shall not be considered an event of default.
9. **STATUTE OF LIMITATION** - Any clauses limiting the time in which the Agency may bring suit against the Vendor, lessor, individual, or any other party are deleted.
10. **SIMILAR SERVICES** - Any provisions limiting the Agency's right to obtain similar services or equipment in the event of default or non-funding during the term of the agreement are hereby deleted.
11. **ATTORNEY FEES** - The Agency recognizes an obligation to pay attorney's fees or costs only when assessed by a court of competent jurisdiction. Any other provision is invalid and considered null and void.
12. **ASSIGNMENT** - Notwithstanding any clause to the contrary, the Agency reserves the right to assign the agreement to another State of West Virginia agency, board or commission upon thirty (30) days written notice to the Vendor and Vendor shall obtain the written consent of Agency prior to assigning the agreement.
13. **LIMITATION OF LIABILITY** - The Agency, as a State entity, cannot agree to assume the potential liability of a Vendor. Accordingly, any provision limiting the Vendor's liability for direct damages to a certain dollar amount or to the amount of the agreement is hereby deleted. Limitations on special, incidental or consequential damages are acceptable. In addition, any limitation is null and void to the extent that it precludes any action for injury to persons or for damages to personal property.
14. **RIGHT TO TERMINATE** - Agency shall have the right to terminate the agreement upon thirty (30) days written notice to Vendor. Agency agrees to pay Vendor for services rendered or goods received prior to the effective date of termination.
15. **TERMINATION CHARGES** - Any provision requiring the Agency to pay a fixed amount or liquidated damages upon termination of the agreement is hereby deleted. The Agency may only agree to reimburse a Vendor for actual costs incurred or losses sustained during the current fiscal year due to wrongful termination by the Agency prior to the end of any current agreement term.
16. **RENEWAL** - Any reference to automatic renewal is hereby deleted. The agreement may be renewed only upon mutual written agreement of the parties.
17. **INSURANCE** - Any provision requiring the Agency to insure equipment or property of any kind and name the Vendor as beneficiary or as an additional insured is hereby deleted.
18. **RIGHT TO NOTICE** - Any provision for repossession of equipment without notice is hereby deleted. However, the Agency does recognize a right of repossession with notice.
19. **ACCELERATION** - Any reference to acceleration of payments in the event of default or non-funding is hereby deleted.
20. **CONFIDENTIALITY**: -Any provision regarding confidentiality of the terms and conditions of the agreement is hereby deleted. State contracts are public records under the West Virginia Freedom of Information Act.
21. **AMENDMENTS** - All amendments, modifications, alterations or changes to the agreement shall be in writing and signed by both parties. No amendment, modification, alteration or change may be made to this addendum without the express written approval of the Purchasing Division and the Attorney General.

ACCEPTED BY:


STATE OF WEST VIRGINIA

VENDOR

Spending Unit: _____

Company Name: VARIAN, INC.

Signed: _____

* Signed: 

Title: _____

Title: CONTRACTS MANAGER

Date: _____

Date: MAY 4, 2009

* ACCEPT AS OTHERWISE NOTED IN OUR LETTER DTD 5.4.09

Varian Analytical Instruments
2700 Mitchell Drive
Walnut Creek, CA 94598-1675 USA

Phone: 925.939.2400

Fax: 925.945.2335

www.varianinc.com

April 14, 2009

Roberta A. Wagner
State of West Virginia
Dept. of Admin, Purchasing Div
2019 Washington Street East
P.O. Box 50130
Charleston, WV 25305-0130



VARIAN

Dear Roberta,

Varian Inc. is excited to respond to your Request for Quotation RFQ No. LBS90127 for an Inductively Coupled Plasma-Mass Spectrometer(ICP-MS) to analyze metals in drinking water.

This enclosed response by Varian Inc. meets or exceeds ALL instrument specifications, as well as Installation/Training, Warranty, and Shipping/Delivery Requirements listed in RFQ LBS90127. The total price of this Varian 820 ICP-MS package is \$116,315, including shipping costs.

The Varian Inc. response **Exceeds Specifications** in the following ways:

1. Varian has included our Collision Reaction Interface(CRI, e.g. 820 ICP-MS) at no additional cost. This CRI will allow end user to eliminate ICP-MS interferences(i.e. ArCl interference on low levels of As). *This CRI accessory lists for \$18,000, but is given to State of WV at no extra costs.*
2. Varian will provide a minimum of one day on-site specified training, as well as a 3 Day Off-Site ICP-MS Training Course for one person.
3. *Sensitivity* of Varian 820 ICP-MS exceeds all other vendor's specifications, which means end user will be able to detect lower concentration of drinking water metals than with any other ICP-MS.
4. Varian ICP-MS has 90 degrees off-axis optical configuration which means that *maintenance issues(e.g. cleaning of lens and quadrupole) will be reduced* from maintenance frequency of all other ICP-MS units offered.
5. Varian ICP-MS offers an *ALL digital detector*, which means that end user will not have to worry about cross over calibrations that are a known problem with dual type detectors(e.g. analog and digital) offered by all other vendors.
6. Varian's *software is superior* in that is easy to learn and intuitive in nature.

Varian has provided duplicate copies of all required specification documentation, as well as the following items:

1-Varian Quotation 34134101403 listing individual items in the offered ICP-MS pkg, as well as list and discounted pricing.

2- Varian 810/820 ICP-MS Brochures and Specifications

3- Copy of this Cover Letter

Any questions concerning this response can be addressed to myself at 1-800-926-3000, mailbox 3141, Cell number 513-520-5861, or E-mail of vic.gill@varianinc.com.

We appreciate this opportunity and look forward to a mutually rewarding relationship between Varian Inc. and the State of West Virginia.

Sincerely,

A handwritten signature in cursive script that reads "Vic Gill". Below the signature, there are some faint, illegible initials or a mark.

Vic Gill
Varian Sr. Sales Representative



Quotation

34134101403

04/17/09

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VARIAN

Varian Inc.
 2700 Mitchell Drive
 Walnut Creek, CA 94598
 www.varianinc.com
 Phone: (800) 926-3000 Fax: (925) 945-2360
 Email: csb-salesupport@varianinc.com

Quotation For:

Roberta A. Wagner
 State of West Virginia
 Dept. of Admin, Purchasing Div
 2019 Washington Street East
 P.O. Box 50130
 Charleston, WV 25305-0130
 (304) 558 - 0067 FAX: (304) 558 - 4115

<i>Your Inquiry:</i>	Varian Standard Terms & Conditions apply (see attached)
<i>Payment Terms:</i> NET 30 DAYS - 02	<i>Quotation Expires:</i> June 5, 2009
<i>Shipping Method:</i> BEST WAY - 09	<i>Delivery Lead Time:</i> 7 WEEKS ARO
<i>FOB:</i> FOB DESTINATION - 02	<i>Unit Price Basis:</i> USD

All applicable taxes, freight
 insurance, and/or other
 handling charges
 will be added at invoicing.

Varian 820 ICP-MS Pkg with CRI Accessory

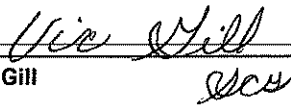
Varian Inc Response to RFQ LBS 90127 for Varian 820 ICP-MS with CRI accessory for total of \$116,315 including shipping costs. Includes 820 ICP-MS with CRI Accessory, chiller, tuning solution, auto sample/accessories, software, Dell PC, Dell 20 " Flat Color Monitor, Laser Jet Printer, 1 Off-Site 3 Day ICP-MS Training Course, on-site installation & one day minimum training, and one year warranty.

To place order simply Fax approved PO to Varian Order Correspondent, Sandy Grantz, at 925-945-2360. Please reference this quotation, 34134101403 when placing order and please verify faxed communication rec'd by calling Ms Grantz directly at 925-942-4845.

Submitted by:

4E5

Vic Gill



For Order Placement:

Please reference Quotation Number on all purchase orders.

Please forward all Purchase Orders and Correspondence to:

Varian Inc.
 2700 Mitchell Drive
 Walnut Creek, CA 94598
 (800) 926-3000 Fax (925) 945-2360



VARIAN

Quotation

34134101403

04/17/09

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State of West Virginia, Charleston, WV

Item	Qty	Part Number	Product Description	Unit Price	Discount	Amount
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Section 1 Varian 820 ICP-MS Pkg with CRI Accessory						
-----------------------------------------------------------	--	--	--	--	--	--

1.01	1	0010087801	Varian 820-MS Spectrometer (Single Phase) Including 1 Day Min On-Site Training	160,000.00	38.00%	99,200.00
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The Varian 820-MS is a compact, floor-mounted Inductively Coupled Plasma Mass Spectrometer (ICP-MS) with full PC control of all instrument settings and compatible accessories. It features a patented 90 degree reflecting ion optics system for gigahertz sensitivity (1000 Mc/s/mg/L) and low background and interferences. The Varian 820-MS system includes a sample introduction system, solid state 27 MHz RF generator, and patented Turner Interlaced Coils. Full PC control of plasma positioning, triple stage vacuum system, all plasma gas flows, mass analyzer, and Discrete Dynode Electron Multiplier (DDEM) detector is also included. The vacuum system is fully contained within the instrument for the smallest instrument footprint. Unique DDEM detector provides nine decades of dynamic range in an all-digital pulse design. Fully web-integrated ICP-MS Expert software uses Varian's worksheet concept for ease of use, rapid operator training, and commonality with other Varian, Inc. spectroscopy products.

The Varian 820-MS system includes Varian's unique Collision Reaction Interface (CRI) providing fast, flexible, interference-free analysis using simple collision and reaction gases. The CRI reduces interferences by injecting simple collision and reaction gases (helium or hydrogen) into the plasma as it passes through the orifice of the cones. Gas may be injected through the sampler cone, skimmer cone, or both. All CRI gas flows controlled by mass flow controllers. Rapid switchover between gas on and gas off, or between different collision and reaction gases.

Includes External Sample Introduction Assembly (ESIA) with Peltier-cooled Scott type double-pass glass spraychamber (PC-controlled variable temperature for enhanced stability and reduced oxide ion interferences), low (400 microliter/min) glass nebulizer and fully PC-controlled variable speed 3-channel peristaltic pump. Mounted outside the torch box to eliminate temperature-induced drift. Features rapid start-up, easy access for maintenance and cleaning, and rapid switchover to accessories.

One button automated optimization of all gas flows, including CRI gases. 27.12 MHz solid-state, air-cooled, crystal locked RF generator in main instrument housing (600-1600 W in 10W increments). Optimum power setting automatically defined and stored within each method. Automatic ignition and shutdown of plasma with user-customizable ignition sequence. Automatic optimization of plasma parameters with full PC control of horizontal, vertical and sampling depth (Z position) of plasma for maximum sensitivity and minimum polyatomic interferences. One-piece, low flow, ball-and-socket connection torch. Patented Turner Interlaced Coils minimize polyatomic interferences without the use of a mechanical torch shield in cool plasma mode.

Plasma interface designed for easy access and removal of sampler and skimmer cones. One set of C-series high performance nickel cones and one set of CRI nickel cones provided as standard. Water-cooled plasma interface including individual,



VARIAN

Quotation

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04/17/09

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State of West Virginia, Charleston, WV

Item	Qty	Part Number	Product Description	Unit Price	Discount	Amount
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independent cooling of the cones for faster warm-up, improved stability and faster cool down.

Patented ion mirror reflects analyte ion beam through 90 degrees while photons and neutrals pass to the vacuum system. Ion mirror creates parabolic electrostatic field to focus the analyte ions with optimum efficiency at the quadrupole entrance aperture. Results in gigahertz sensitivity (1000 Mc/s/mg/L). Ion optics feature easy access to extraction lens 1 and 2 for cleaning without breaking vacuum.

Auto-optimization of all ion optics settings, including ion mirror, based on selected optimization criteria. Quadrupole mass analyzer is off-axis using patented curved, self-cleaning stainless steel entrance rods to ensure low background by further eliminating excited neutrals before the quadrupole.

Vacuum system includes two rotary (SD602 and SD302) and two V-301 turbomolecular pumps for efficient pumping and to eliminate excessive pump wear. All vacuum pumps are located in the main instrument housing to reduce noise and eliminate extra floor or bench space requirements. Rotary pumps are mounted on pull-out slides for easy access and maintenance. Turbomolecular pumps feature maintenance-free ceramic bearings. Gate valve between the first and second vacuum stages automatically closes in the event of a power failure.

Quadrupole features precision-machined, stainless steel, round rods locked into ceramic mounts for a near-perfect hyperbolic field. Stainless steel construction permits determination of Hg without high memory. Patented curved entrance rods provide a double off-axis design and low background signals. All voltages are fully interlocked and under PC control. Solid-state, air-cooled power supply. Built-in, multi-channel scaler provides up to 40 channels per mass. Range of 3 to 256 amu with 'zero blast' protection and adjustable resolution (0.5 to 1.2 amu). Mass calibration stability - 0.05 amu per day; quadrupole RF frequency - 3.0 MHz; scan speed - 2000 amu/s; quadrupole settling time - <400 microseconds; minimum dwell time - 200 microseconds.

Standard all-digital ETP AF250 Discrete Dynode Electron Multiplier (DDEM) provides nine decades of linear dynamic range in an all-pulse-counting detector. No complex, time-consuming analog-to-digital cross calibrations are required. Measuring dynodes are mounted off-axis for reduced background. One-year warranty provided on DDEM detector.

Typical 820-MS hot plasma high sensitivity mode performance, Mc/s/mg/L - 9Be >50, 115In >1000, 232Th >300. Precision (10 replicates, 20 minutes) <3%; oxide ions CeO+/Ce+ <3%; doubly charged ions Ba++/Ba+ <3%; background (at 5 amu) <5 c/s. Abundance sensitivity - 10⁻⁶ low, 10⁻⁷ high on 23Na. Isotope ratio precision <0.1%. CRI interference reduction - 1 microgram/L As readback in 1% HCl, 1 microgram/L +/- 0.1 microgram/L.

Complete ICP-MS Expert operating software compatible with Windows XP is included. Easy-to-use worksheet software - a web-integrated design. The software provides fully automated operation of the instrument for functions such as optimization, sample analysis, data collection, and reporting in a user-friendly interface. Features Wizards that guide users through method and sequence



VARIAN

Quotation

34134101403

04/17/09

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State of West Virginia, Charleston, WV

Item	Qty	Part Number	Product Description	Unit Price	Discount	Amount
			<p>development, and method templates for rapid development of commonly used methods. AutoMax makes method development easy by automating all ion optics, nebulizer, plasma and CRI settings for optimum results. ICP-MS Expert switches automatically between multiple method condition sets within a single sample, giving optimum performance for specific element suites, without having to re-run samples. Each worksheet cell provides all results including concentrations, intensities, statistics, replicate readings and graphical mass scans. Some of the additional software features include - high speed Time Resolved Signal (TRS) capability, seamless LC-ICP-MS integration using Varian Galaxie™ chromatographic software, fully automated instrument initialization (start-up) routine, simultaneous real-time display of signals for multiple isotopes or ratios, post-run data editing and comprehensive instrument diagnostics and performance tests. ICP-MS Expert Quality Control Protocols (QCP) can be customized to your needs. Includes compatible methods for US EPA 6020, 200.8 and 1638. A dynamic instrument Status window provides a quick visual check of the status of all system components - an excellent diagnostic tool that maximizes instrument up time.</p> <p>A range of options are available for the 820-MS - SPS3 high-throughput autosampler, diluter (automatic on-line dilution or intelligent off-line solution preparation), productivity pack, integrated speciation (LC-ICP-MS), clean room pack, vapor generation, microconcentric nebulizers and laser ablation. Inert PFA nebulizer, spraychamber, semi-demountable torch with inert Pt injector tube, inert PFA transfer lines and platinum tipped cones are available.</p> <p>The Varian 820-MS single-phase instrument is powered by two single-phase 200-240 V AC, 30 amp, 50-60 Hz supplies. Further installation requirements are covered in the pre-installation manual, Varian publication number 8510206700.</p> <p>The Varian 820-MS system is supplied with operation manual, assorted spares, tools and ICP-MS tuning solution (0190024400). Requires, but does not include compatible controlling computer and water chiller. Includes installation and one year factory warranty.</p>			
1.02	1	0190061800	<p>Lytron Kodiak Recirculating Chiller For ICP-MS 208/230 VAC 60 Hz, Single Phase.</p> <p>3450 watt capacity recirculating chiller for use with 810/820-MS and Varian ICP-MS. Lytron Kodiak Recirculating Chiller RC030J03BF2C008. Includes positive displacement pump, hot gas bypass, microprocessor temperature controller and plastic barb fittings. 208/230 VAC, 60 Hz, single phase, 14.5 Amps.</p>	5,290.00	20.00%	4,232.00
1.03	1	0190024400	<p>ICP-MS Tuning Solution</p> <p>Varian ICP-MS Tuning Solution, 250 mL. Contains 10 ug/mL Ba, Be, Ce, Co, In, Pb, Mg, Tl and Th. (250 mL supplied with ICP-MS instruments.)</p>	205.00	38.00%	127.00
1.04	1	8110002800	<p>Cleaning Powder for ICP-MS/HAZ</p> <p>Polishing compound for interface cones and ion lenses.</p>	33.00	38.00%	20.00



VARIAN

Quotation

34134101403

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State of West Virginia, Charleston, WV

Item	Qty	Part Number	Product Description	Unit Price	Discount	Amount
1.05	1	0190052300	Dell Optiplex Dual Disk 755MT OSI Computer Includes Dell Optiplex 755 MT with 2.4 GHz Quad Core Processor, 1066 MHz Front Side Bus, in mini tower case, 4.0 GB of Non ECC RAM 667 Hz DDR2, Digital Video Card, two 250GB SATA fixed disks with 8 MB Data Burst Cache, 16x DVD +/- RW (read/write) with Roxio Creator Dell Edition, integrated 10/100/1000 network adapter, data/FAX 56K v.92 modem, 9 USB 2.0 ports, 2 serial ports, integrated Sound Blaster Compatible AC97 sound card, Dell speaker system, keyboard, optical mouse and Windows XP Pro with Service Pack 2 with NTFS installed. Three-year next business day onsite parts and labor service contract.	2,630.00	20.00%	2,104.00
1.06	1	0190067100	Dell Ultra Sharp Flat Panel 20 Inch Monitor	1,105.00	20.00%	884.00
1.07	1	0190067300	HP Laserjet P2015d Printer - OSI Up to 27 ppm, standard 32MB of RAM, 1200 x HP LaserJet 1320 Monochrome Laser Printer. 115V/USA Only A compact, space-saving design that includes automatic two-sided printing. Up to 22 ppm, standard 16MB of RAM, 1200 x 1200 dpi maximum resolution, 250 sheets input, 125 output; USB 2.0 ports. Printer cable NOT included, order USB cable (190062100) separately.	578.00	20.00%	462.00
1.08	1	0010082200	SPS3 Sample Preparation System High throughput autosampler with fast X, Z, theta arm movement. SPS3 has capacity for up to 3 sample racks and 1 standard rack. Racks may be exchanged during analysis for unlimited sample capacity. SPS3 is supplied complete with two standard racks suitable for use with either 11 x 16 mm O.D. test tubes or 6 x 29 mm O.D. centrifuge tubes and three 60 position sample racks suitable for use with 16 mm O.D. test tubes. Any sample rack can also be used for standards. Includes built-in peristaltic pump with variable speed control for flow through rinsing of the probe. Compatible with on-line diluter (extra purchase option) for pre-mixing of samples prior to sampling, or on-line overrange sample dilution. Optional software for off-line sample dilution and preparation of multi-element standards and reagent addition is available. SPS3 is also compatible with an optional environmental enclosure preventing contamination of samples from airborne contaminants and/or removing any corrosive or toxic fumes during sampling. SPS3 uses RS232 communications to controlling PC. An RS232 interconnecting cable is supplied.	9,020.00	38.00%	5,592.00



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34134101403

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VARIAN

State of West Virginia, Charleston, WV

Item	Qty	Part Number	Product Description	Unit Price	Discount	Amount
1.09	1	0190010700	Cart for SPS Sampler with Two Shelves Cart for SPS sampler, with lockable wheels and 2 shelves for storage.	300.00	38.00%	186.00
1.10	1	3710051100	SPS Polypropylene Sample Tubes - 16x125 mm Bag of 125.	33.00	38.00%	20.00
1.11	1	6610025400	SPS3 Rack - 60 Tubes (16 mm Diameter)	54.00	38.00%	33.00
1.12	1	6610026100	SPS3 Rack Overlay - 60 Tubes (16 mm Diameter)	47.00	38.00%	29.00
1.13	1	TSCOURSE61	Techniques of ICP-MS 3 Day Course This three-day course presents the basic principles of Inductively Coupled Plasma Mass Spectrometry with a focus on the optimization and operation of the Varian ICP-MS instrument. Topics covered in this course are: basic theory of ICP-MS, ion optics principles, basic mass analyzer principles, vacuum system operation, alternate sample introduction systems, instrument optimization, method development, sample and standard preparation procedures, and troubleshooting & maintenance. ·Learn how to handle difficult sample matrices and achieve lower detection limits ·Receive state-of-the-art information that will help you master the technique of elemental analysis	2,300.00	38.00%	1,426.00
1.14	1	FREIGHT000	Freight Costs for Items Above	2,000.00		2,000.00
Section Total \$						116,315.00
Quotation Total \$						116,315.00

THIS IS NOT AN INVOICE

Terms & Conditions of Sale

This offer is subject to credit approval and is exclusive of any applicable sales taxes or duties.



VARIAN

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34134101403

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State of West Virginia, Charleston, WV

Financing Alternatives

Varian is pleased to present an alternative finance package for your consideration in acquisition of this instrumentation. You may not be aware that leasing offers 100% financing including installation and taxes. We can also let your organization realize some important additional benefits such as improved cash flow, flexibility to expand or upgrade your system, as well as fixed rate financing with protection against inflation.

Below are estimated monthly payments for different leasing options based on Quotation: 34134101403

10% Purchase Options

36 Months	48 Months	60 Months
\$3,426	\$2,675	\$2,229

\$1.00 Purchase Options

36 Months	48 Months	60 Months
\$3,699	\$2,872	\$2,382

10% Purchase Option: Also known as a tax or operating lease, the intent is not necessarily to own, but to gain the benefits of the equipment in exchange for the low monthly payment. At the end of the lease term, your company has the option to purchase the equipment for 10% of the original finance amount. In addition, your company may expense 100% of each monthly payment off its pre-tax income, reducing tax liability.

\$1.00 Purchase Option: Also known as a capital lease, the intent is to own the equipment at the end of the lease term. The equipment is depreciated and your company owns it with the last monthly payment.

Additional Benefits

- Stay within your budget
- Conserve cash
- Finance 100% -including service, installation and taxes
- Quick and easy application process

If your organization is interested in these or other finance programs, contact the following:

Ameritech Leasing, Inc.
Bill Scopp
913-381-3344 x202

De Lage Landen Financial Services
Jeff Smith
845-897-2272

Lease World Corp.
Manny Licker
954-969-1965

Trinity Vendor Finance
Craig de Koning
800-841-4433 x177

West Bay Financial Corp.
Bob Fode
714-663-0100 x103

JB2 Funding Corp.
Jacob White
877-386-3522 x 333

TERMS AND CONDITIONS OF SALE

1. GOVERNING TERMS.

These Terms and Conditions of Sale ("Terms") shall apply to the sale by Varian, Inc. or its affiliated company ("Varian") of the products and/or services ("Products") described in the Quotation, Sales Order, Acknowledgment, Purchase Order, web page or other contract documentation to which these Terms are attached, incorporated by reference and made an integral part (the "Contract Documents"). Except as expressly agreed by authorized representatives of both parties in writing, no other terms and conditions, including any terms and conditions attached to Buyer's request for quotation, acknowledgment, purchase order or other contract documentation, shall apply to Varian's sale of the Products. Varian's shipment of any Product or performance of any purchase order or contract is expressly conditioned on Buyer's acceptance of these Terms. As used herein, "Contract" refers to the applicable order pursuant to which Varian is selling the Products to Buyer.

2. PRICE AND PAYMENT.

Except as otherwise specified in the Contract Documents, Varian's prices exclude and Buyer is responsible for all sales, use, excise, value-added or other taxes and duties. Buyer's late payment shall constitute a fundamental breach of the Contract, shall result in a service charge against Buyer of the lesser of 2% per month of the Contract amount or the maximum amount permitted by law, and shall entitle Varian to cancel or delay performance under the Contract. Varian shall retain a purchase money security interest or similar lien or right of repossession in all Products shipped to Buyer under the Contract until paid in full. Buyer shall execute documents and make filings or recordings as requested by Varian for the perfection or other protection of such security interest. Buyer shall be responsible for any costs of collection incurred by Varian hereunder, including reasonable attorneys' fees.

3. DELIVERY.

Unless otherwise specified in the Contract Documents, Buyer shall take title and risk of loss of the Products at point of delivery for Products shipped by Varian, Inc. to a non-U.S. destination and at point of shipment in all other cases. Training, if included in Products, must be taken by Buyer within one year following shipment of system.

4. INSTALLATION.

If installation is included in Products, Buyer shall provide any necessary permits, facilities and utilities, ensure compliance with regulatory requirements, and comply with Varian's reasonable pre-installation instructions in a timely fashion.

5. INFRINGEMENT INDEMNITY.

Varian shall defend and indemnify Buyer from all third party claims alleging that Varian's design or manufacture of any Product infringes any third party patent or other intellectual property right, except to the extent such claims arise from or relate to (a) any Product or component thereof designed by Buyer, (b) modification of any Product without Varian's express written consent, (c) use of any Product in combination with any product, process, application, or material or system not designed or manufactured by Varian, or (d) products manufactured by Buyer using any Product.

6. SOFTWARE LICENSE.

Title to all software provided as separate modules or embedded in the Products ("Software") shall remain the property of Varian or Varian's licensors. Varian grants to Buyer a non-exclusive, limited license to use the Software together with the Products. Buyer shall not decompile, disassemble or otherwise reverse engineer the Software, and may create derivative works only to the extent permitted by Varian. Buyer shall not sublicense, assign, copy, distribute or disclose any portion of the Software to a third party without the express written consent of Varian. Buyer may transfer or sell the Software only together with the Products. This license shall terminate when Buyer discontinues use of the Software.

7. WARRANTY.

Varian warrants consumable laboratory supplies and Software sold under these Terms to be free from defects in material and workmanship and in substantial conformance with Varian's published specifications for a

TERMS AND CONDITIONS OF SALE

period beginning upon delivery and ending fourteen (14) days thereafter, subject to any applicable license agreement. Varian warrants services sold under these Terms to be performed in a good and workmanlike manner for a period beginning upon performance and ending thirty (30) days thereafter. Varian warrants all other Products sold under these Terms to be free from defects in material and workmanship and in substantial conformance with Varian's published specifications for a period beginning upon delivery and ending ninety (90) days thereafter. Varian does not warrant the operation of any Software to be uninterrupted or error-free. The foregoing warranty periods shall be deemed extended to the extent required by any mandatory, non-waivable provision of applicable law or as otherwise stated by Varian in the Contract Documents. The foregoing warranties are void in the event of Product abuse, alteration, misuse, improper operation or maintenance, use in an unsuitable physical environment, or use with inadequate facilities or utilities, and these warranties do not cover products, components, or services warranted by another party or which come into direct contact with samples in the course of use. Buyer's sole and exclusive remedy for any defective or non-conforming Product after its warranty period begins shall be repair, replacement, or credit, at Varian's sole option, and such remedy shall be available only during the applicable warranty period. Repaired or replaced Products shall be subject to the original warranty period, which shall not be extended due to such repair or replacement, except to the extent required by any mandatory, non-waivable provision of applicable law. Buyer shall prepay the cost of shipping for and be responsible for loss or damage in transit to any Products returned under warranty to Varian. **THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

8. DAMAGES.

In no event shall Varian or Buyer be liable to the other or their respective affiliates for incidental, consequential, indirect, punitive, or special loss or damages of any kind, including but not limited to lost revenues, lost profits, loss of goodwill or lost production, however caused, whether based on contract, tort (including negligence) or any other legal theory. Varian's total liability in damages or otherwise to Buyer and its affiliates shall not exceed payments received by Varian under the contract. Buyer expressly waives any rights of rescission, cancellation or revocation of acceptance with respect to delivered Products.

9. FORCE MAJEURE.

Neither Varian, nor Buyer shall be liable to the another for failure to perform any obligation under the Contract to the extent such failure to perform is due to labor unrest, riot, war, fire, accident, weather or other natural disasters, lack of energy supplies, supplier delays, compliance with law, failure to obtain all necessary licenses, permits or approvals after reasonable efforts, or any unforeseen circumstances or other causes beyond such party's reasonable control.

10. SOLE TERMS.

These Terms and the Contract Documents of which they are a part set forth the entire agreement between Varian and Buyer with respect to their subject matter and supersede all previous written or oral agreements and understandings between Varian and Buyer. These Terms and the Contract Documents may not be amended nor may compliance with any provision herein or therein be waived, except by a written document duly and validly executed by both Varian and Buyer, or in the case of a waiver, the party waiving compliance. Any part of these Terms held to be void, invalid or unenforceable shall be treated as severable, leaving valid the remaining Terms.

11. GOVERNING LAW.

If this Contract concerns the sale of Products to be delivered to U.S. destinations, it shall be governed by the laws of the State of California, U.S.A. (excluding choice of law rules and the provisions of the Convention for the International Sale of Goods (CISG)). Any dispute or claim arising out, relating to or in connection with such a Contract shall be resolved exclusively by final, binding arbitration pursuant to the American Arbitration Association, provided that, Varian may seek injunctive or other relief in any court of law in order to prevent any unauthorized copying, disclosure, use, retention or distribution of its intellectual property. If this Contract concerns the sale of Products to be delivered to non-U.S. destinations, it shall be governed by CISG and (for issues not addressed by CISG) by local law applied pursuant to choice of law rules or mutual agreement of the parties, and any disputes or claims may be resolved in any court of competent jurisdiction.

Varian Inc.
2700 Mitchell Drive
Walnut Creek, CA 94598
<http://www.varianinc.com>



May 4, 2009

Health and Human Resources
Environmental Chemistry Lab
4710 Chimney Drive
Charleston, WV 25302

Attention: Roberta Wagner

Reference: Solicitation Number: LBS90127

Dear Ms. Wagner,

Varian, Inc. is pleased to respond to the subject Request for Proposal. The proposal submitted represents a firm offer by Varian to provide equipment and services at the prices indicated herein. Varian's proposal and pricing is predicated on the attached Varian Terms and Conditions. However, we are willing to further negotiate to reach mutually acceptable terms upon award of contract. Varian, Inc. is registered with the eVA website and will remit the \$125 payment within 10 days of any resulting contract award.

Included in our response are the following documents:

This Letter
Varian, Inc. Quotation No. 34134101403
State of Virginia Forms
Varian, Inc. Terms and Conditions
Varian, Inc. Literature

Varian appreciates the opportunity to support your requirements. If further information is required please contact Varian Account Manager, Vic Gil at 800.926.3000 or vic.gill@varianinc.com. If you have any questions of a contractual nature please contact the undersigned at 925.280.6859 or lisa.hartley@varianinc.com.

Sincerely,

Lisa Hartley
Sr. Contract Administrator



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

Request for Quotation

RFQ NUMBER
 LBS90127

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 ROBERTA WAGNER
 304-558-0067

VENDOR
 *709065825 800-926-3000
 VARIAN INC
 2700 MITCHELL DRIVE
 WALNUT CREEK CA 94598

SHIP TO
 HEALTH AND HUMAN RESOURCES
 ENVIRONMENTAL CHEMISTRY LAB
 4710 CHIMNEY DRIVE
 CHARLESTON, WV
 25302 304-558-3530

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/23/2009				

BID OPENING DATE: 05/07/2009 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>ORIGINAL</p> <p>ADDENDUM NO. 1</p> <p>1. QUESTIONS AND ANSWERS ARE ATTACHED.</p> <p>2. ADDENDUM ACKNOWLEDGMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.</p> <p>EXHIBIT 10</p> <p>REQUISITION NO.: LBS90127</p> <p>ADDENDUM ACKNOWLEDGEMENT</p> <p>I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.</p> <p>ADDENDUM NO.'S:</p> <p>NO. 1</p> <p>NO. 2</p> <p>NO. 3</p> <p>NO. 4</p> <p>NO. 5</p> <p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>STEE P. D</i>	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, 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

Request for Quotation

RFQ NUMBER
LBS90127

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2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER 304-558-0067

VENDOR

*709065825 800-926-3000
 VARIAN INC
 2700 MITCHELL DRIVE
 WALNUT CREEK CA 94598

SHIP TO

HEALTH AND HUMAN RESOURCES
 ENVIRONMENTAL CHEMISTRY LAB
 4710 CHIMNEY DRIVE
 CHARLESTON, WV 25302 304-558-3530

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/23/2009				

BID OPENING DATE:

05/07/2009

BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>VENDOR MUST CLEARLY UNDERSTAND 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.</p> <p>..... SIGNATURE COMPANY DATE</p> <p>REV. 11/96</p> <p>END OF ADDENDUM NO. 1</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE 935.945.5106	DATE 5/4/09
TITLE CONTRACTS MANAGER	FEIN 17-0501995	ADDRESS CHANGES TO BE NOTED ABOVE

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

State of West Virginia
Purchasing Division



PURCHASE REQUISITION

Requisition No. LBS90127	Buyer RW-22	Requisition Date 04/22/09
Agency/Invoice To: Health and Human Resources BPH - Laboratory Services 167 Eleventh Ave South Charleston, WV 25303	TEAM Code _____	WVFIMS Document # _____
Agency/Ship To: Health and Human Resources Environmental Chemistry Lab 4710 Chimney Drive Charleston, WV 25302	TEAM Code _____	Suggested Vendors: 1. 2. 3. <i>Additional Vendors on Reverse Side</i>
This Section Only For: Releases, Direct Purchases, Emergency Purchases and Agreements		PURCHASING DIVISION'S USE ONLY
Vendor Name and Address:		
WVFIMS Vendor # _____	TEAM Vendor # _____	Commodity Code: _____
Terms _____	F.O.B. _____	Instructions: _____

Item No.	Quantity	Description	Unit Price	Amount
		<p align="center">Addendum #1</p> <p align="center"><i>Type of Purchase</i></p> <p>Response to vendor question:</p> <p>Question:</p> <p>Under Specifications, Installation/Training Requirements, item 3: Is this 2 day training course to be conducted at vendor site or on-site at WV Env Chem Lab for how many people?</p> <p>Response:</p> <p>One state employee will be receiving the advanced training course which may be conducted at either the WV Environmental Laboratory or at the vendor's location.</p>		

Authorized Signature _____
 Title CONTRACTS MANAGER
 Telephone 925.945.2102

Total Estimated Value of this Requisition: _____
 Maximum Budgeted Amount: _____

**STATE OF WEST VIRGINIA
PURCHASE CONTINUATION SHEET**

Page <u>2</u> of <u>2</u> Pages		Requisition / P.O. No.: LBS90127
File: RW22	Acct. No.: 5201-2009-3045-099-072-15384	
Spending Unit: DHHR/OLS		

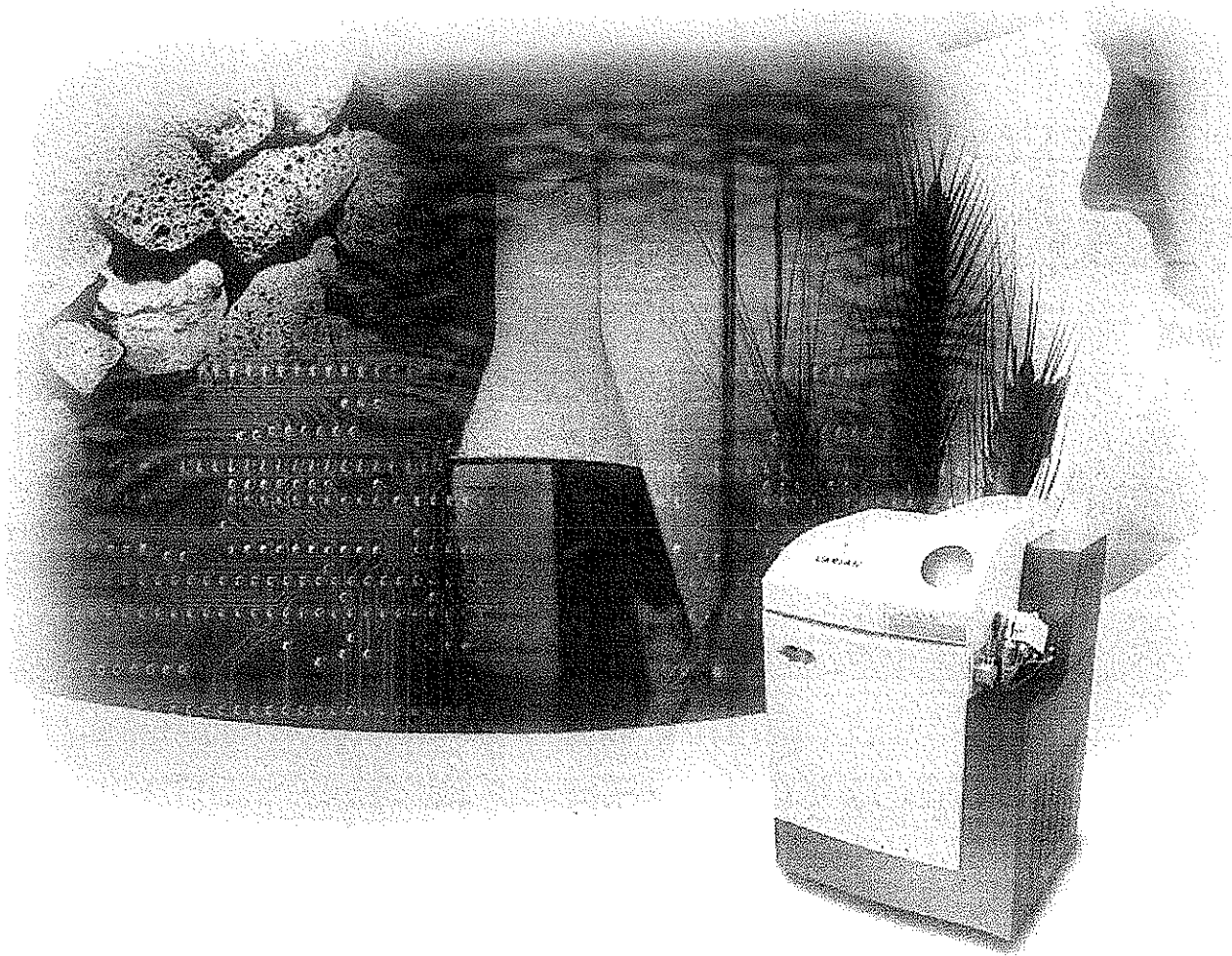
Vendor: _____ P.O. Date: _____

Item No.	Quantity	Description	Unit Price	Amount
		<p>VENDOR QUESTION #1:</p> <p>I have a question/concern regarding Request for Quotation LBS90127 that I hope you can assist with. This is in regards to the supplied Instrument Specifications, Items #6 and #8, and these items happen to be related as it pertains to ICP-MS systems. These specifications state:</p> <p>6. Instrument must be floor-mounted model with wheels to conserve available bench space and to facilitate mobility and serviceability.</p> <p>8. The vacuum system must be fully contained within the instrument to conserve floor space.</p> <p>The vendor question is: Can items #6 and #8 be removed from consideration on RFQ LBS90137?</p> <p>RESPONSE: No.</p> <p>6. The floor-mounted model is requested as specified.</p> <p>8. The vacuum system is requested as specified.</p>		

VARIAN, INC

810/820-MS

ICP MASS SPECTROMETERS



VARIAN

Your partner in ICP-MS solutions

Innovation you can trust

Varian continues to find new and novel ways to meet your changing needs. As a world leader in elemental analysis you can be assured that when you buy a Varian ICP-MS, you're buying more than just an instrument. You're buying a relationship with one of the most respected and experienced instrument companies in the world.



Choosing an ICP-MS has never been easier

If you've ever wished that ICP-MS could be simpler, wish no more. The Varian 810-MS and 820-MS make ICP-MS effortless. No matter what your requirements, with a Varian ICP-MS, you can tackle any application with ease.

Ease-of-use features of the Varian 810-MS and 820-MS include:

- Fast switch-over. Varian's unique* collision/reaction interface (CRI) system makes setup of complex reaction cell conditions a thing of the past. Simply turn on the gas flow to remove interferences. It's that simple. (820-MS only)
- Auto-optimization. Take the guesswork out of ICP-MS. With auto-tuning of all instrument parameters, you can spend less time on instrument setup and more time on sample analysis.
- Great software. The ICP-MS Expert software provides one-step optimization and method development. And it makes standard preparation easy; it can instruct you on what solutions to make and how to make them.

* Patents pending

Atomic Spectroscopy Innovation Timeline:

Built components for world's first AAS (as Techtron)	Developed the AA2, Techtron's first commercial AA	Varian applies for patent on Zeeman background correction	Varian applies for patent on interlaced coils for ICP-MS	Varian introduces the first fully automated ICP-MS	Varian applies for patent on SIPS, providing online calibration and fast online dilution for flame AA	Varian applies for patent on the VistaChip, used in the world's fastest simultaneous ICP-OES – the Vista-PRO™
------------------------------------------------------	---------------------------------------------------	-----------------------------------------------------------	----------------------------------------------------------	----------------------------------------------------	-------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------

ICP-MS: It's never been easier

With two ICP-MS models, the choice is yours

Core to both the 820-MS and 810-MS, Varian's patented high-efficiency 90 degree ion optics and double off-axis quadrupoles deliver exceptionally low background noise and unmatched sensitivity – at more than 1 million counts per second for 1µg/L.

The 820-MS features Varian's unique collision reaction interface (CRI) system, which provides simple, routine removal of troublesome spectroscopic interferences. The result is faster, more flexible interference-free analysis without the worry of complex multipole or scanning quadrupole ion guides, or cells. And, by coupling auto-tuning of all instrument parameters, including CRI gases, instrument productivity is greatly enhanced.

For samples that don't require CRI, the Varian 810-MS is an ideal instrument with industry leading sensitivity for trace and major elemental analysis.

Varian applies for patent on Fast Sequential AAS, reducing analysis times by up to 50%

Varian applies for patent on ion mirror optics for ICP-MS, providing highly efficient transport of ions to the mass analyzer

Varian's Duo AA introduces simultaneous flame and furnace analyses

Varian applies for patent on curved fringe rods for ICP-MS, providing very low background and unmatched sensitivity

Varian applies for patent on collision/reaction interface (CRI) for ICP-MS, providing a simple solution to interference management

Varian introduces the world's most sensitive ICP-MS, incorporating interlaced coils, ion mirror optics, and curved fringe rods

Varian introduces the 810/820-MS, incorporating the novel CRI interference management technology

The benchmark for analytical performance

When you require ease-of-use and the ultimate in analytical performance, the Varian 810-MS and 820-MS deliver.

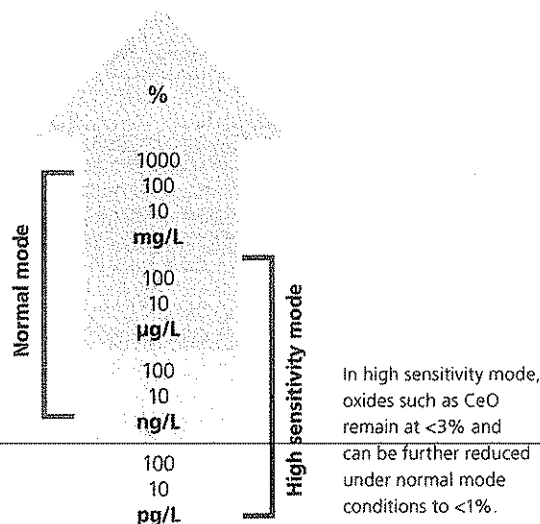
- Unique* collisional interface/extraction optics minimize interferences, providing reliable, routine, trace level quantification.
- Optimized sample introduction system, including computer-controlled Peltier-cooled spraychamber, reduces interferences and improves stability.
- Robust, high-efficiency plasma system and patented Turner Interlaced Coils break down the toughest sample matrices, reduce matrix effects, and minimize ion energy spread for maximum sensitivity and stability.
- Patented 90 degree ion mirror and low noise double off-axis quadrupole provide industry leading sensitivity and background.
- All-digital extended range detector – more than nine decades of dynamic range in pulse counting (digital) mode. Ease-of-use, fewer dilutions, and a guaranteed one year detector lifetime mean greater productivity and lower running costs for your laboratory.
- Varian's ICP-MS series takes your laboratory to the leading edge of laser ablation performance (LA-ICP-MS), providing a solution for the direct analysis of challenging solid samples.
- A range of accessories to further expand the productivity and capabilities of the new ICP-MS series are available. Options like the Clean Room Pack, Productivity Pack and SPS3 autosampler, provide solutions for your most demanding applications.
- Fully integrated LC-ICP-MS using Varian Galaxie chromatography software and Varian ICP-MS Expert software, making elemental and molecular speciation easy.

* Patents pending

Feature	810-MS	820-MS
Collisional interface	○	○
Optimized sample introduction	○	○
Interlaced coils	○	○
90 degree ion mirror	○	○
All-digital detector	○	○
LA-ICP-MS	○	○
LC-ICP-MS	○	○
Collision/reaction interface (CRI)	○	○
Clean Room Pack	○	○
Productivity Pack	○	○

○ Standard feature
○ Optional feature

Isotope/Species	Typical Hot Plasma Performance	Industry leading sensitivity, patented Turner Interlaced Coils, and 27 MHz plasma combine to deliver the remarkable performance of the Varian ICP-MS.
⁹ Be	> 50 million cps/mg/L	
¹¹⁵ In	> 1000 million cps/mg/L	
²³² Th	> 500 million cps/mg/L	
CeO ⁺ /Ce ⁺	< 3%	



"Our 90 degree reflecting ion optics revolutionizes ICP-MS performance"

Low noise quadrupole with curved fringe rods* for ultimate efficiency and low background.
* US Patent 6,762,407 B2

Turner Interlaced Coils*
* US Patent 5,194,731

Varian's ion mirror* reflects the ion beam through 90 degrees, focusing the analyte ions into the quadrupole with the highest possible efficiency.

By keeping photons and neutrals away from the mass analyzer, the ion mirror greatly reduces background signal.
* US Patent 6,614,021 B2

Varian's 820-MS collision/reaction interface* (CRI) provides fast, flexible, interference-free analysis.
* Patents pending

Varian 820-MS

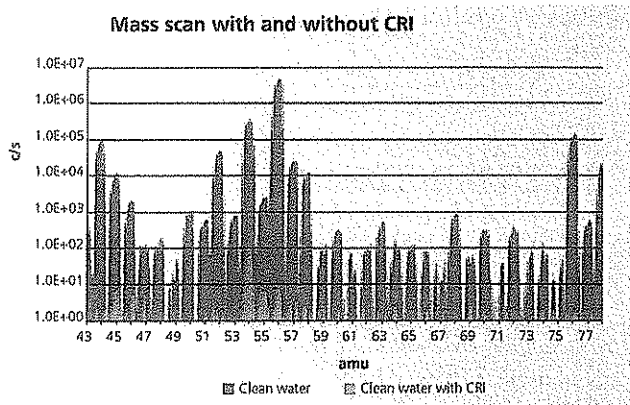
Fast, flexible, interference-free analysis

Determine the toughest analytes in any sample without interferences

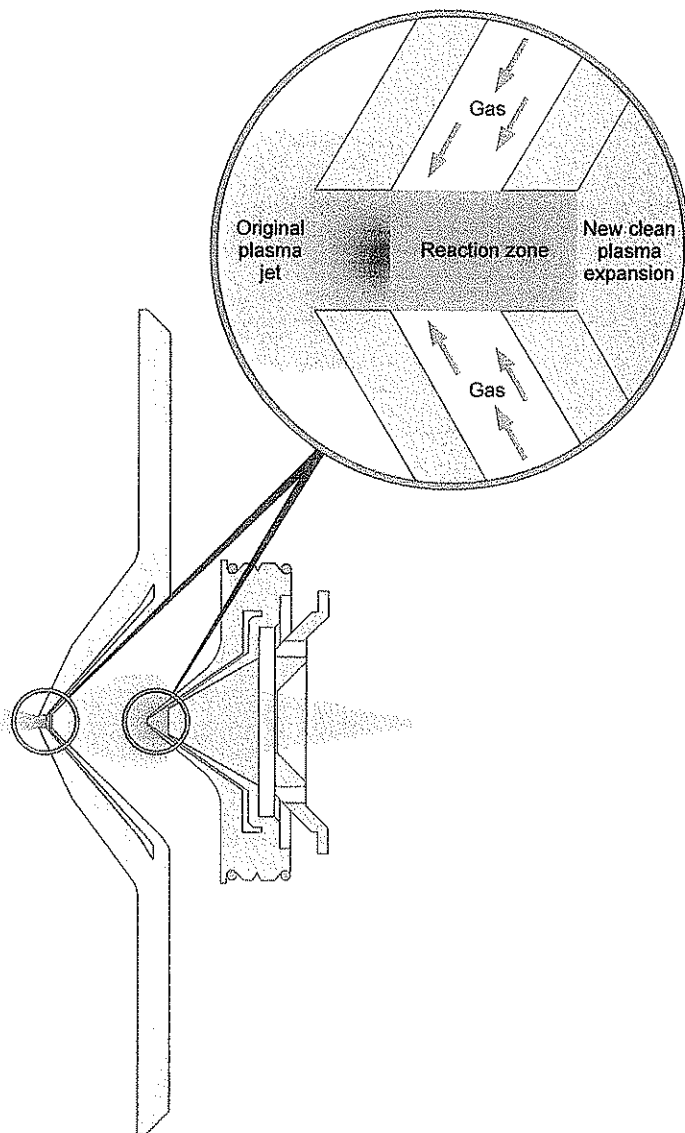
How does CRI work?

The collision/reaction interface (CRI) injects helium (He) and hydrogen (H₂) collision and reaction gases directly into the plasma as it passes through the orifice of the cones. This innovative approach suppresses interferences before the analytes are extracted into the ion optics. It's that simple!

- No need for corrosive or expensive gasses, such as ammonia and methane.
- Setup and analysis are fast and easy as there are no complex multipole ion guides.
- The CRI reaction is not confined to a cell, so you can quickly switch from CRI to non-CRI mode, or between different collision and reaction gases.



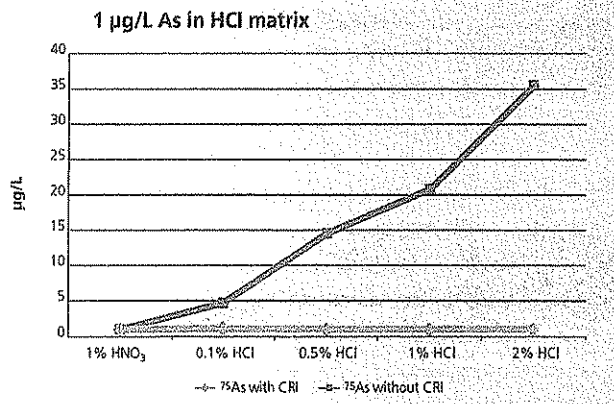
Dramatically reduce or eliminate troublesome plasma and sample matrix based interferences, using CRI.



Innovation you can trust

Determination of As in Cl containing samples

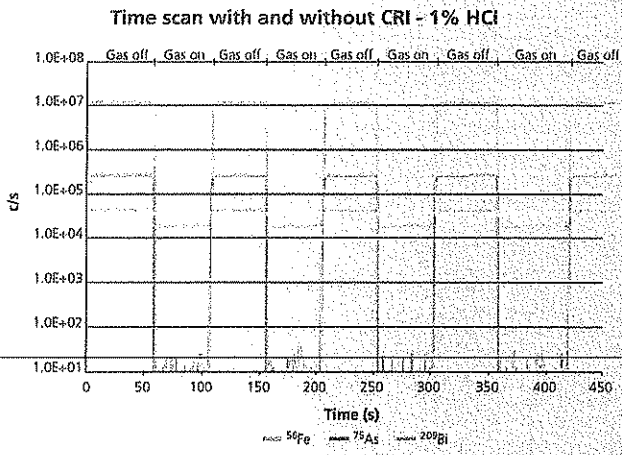
Use CRI in H₂ mode to remove the ArCl interference when determining As in samples ranging from drinking water to seafood to soil.



Comparison plots showing 1 µg/L spike recoveries for ⁷⁵As without correction equations. ArCl interferences are removed, allowing accurate trace level quantification of As.

Quickly and reproducibly reduce interferences

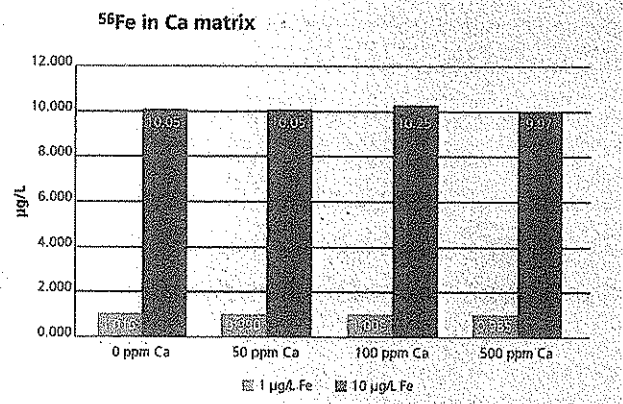
With CRI you can quickly switch from CRI to non-CRI, or between different collision and reaction gases.



With CRI, ⁴⁰Ar¹⁶O and ⁴⁰Ar³⁵Cl interferences on ⁵⁶Fe and ⁷⁵As respectively are reduced by over six orders of magnitude with minimal effect on the ²⁰⁹Bi spike sensitivity.

Removing Ca interferences from Fe

With CRI you can easily remove CaO interferences when detecting low levels of Fe in a wide range of samples. This makes it ideal for environmental applications.



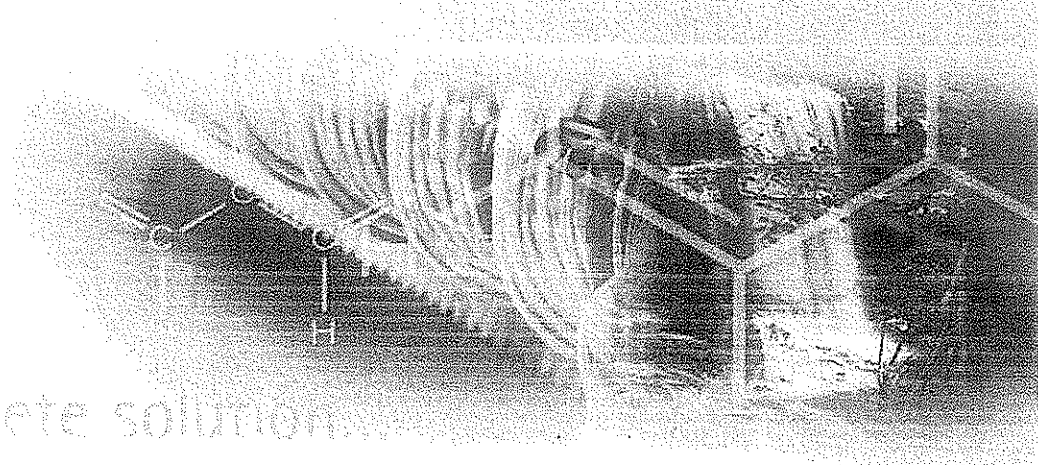
Recovery of low level Fe in various calcium concentrations shows that CRI effectively removes both ⁴⁰Ca¹⁶O and ⁴⁰Ar¹⁶O interferences.

Unmatched performance for biological samples

Remove As, Se, V and Cr interferences in challenging biological samples such as blood, serum, and urine, with ease and confidence.

	Certified range µg/L	Measured value µg/L
²⁷ Al	13 - 21.2	20
⁵¹ V	0.27 - 0.37	0.29
⁵² Cr	0.42 - 0.78	0.42
⁵⁶ Fe	404 - 460 (mg/L)	420 (mg/L)
⁷⁵ As	1.4 - 2.2	1.8
⁷⁸ Se	74.4 - 85.2	77.2
^{206, 207, 209} Pb	26.2 - 29	27.6
²³⁸ U	0.16 - 0.18	0.17

Obtain accurate results in complex biological matrices. Above, certified and measured values for Reference Whole Blood Seronorm WB1 show that trace and major levels can be determined with accuracy and confidence using CRI.



The complete solution

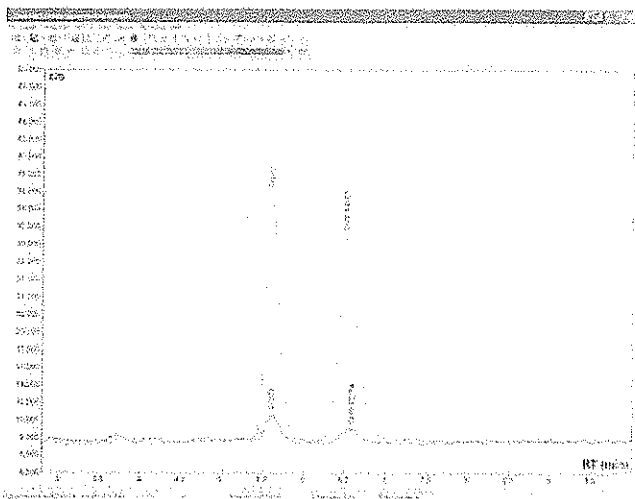
Seamless speciation

Obtain accurate, low level quantification of both Cr^{VI} and Cr^{III} species by using CRI to remove interferences such as ⁴⁰Ar¹²C.

The Varian 810/820-MS also feature fully integrated LC-ICP-MS compatibility using Varian Galaxie chromatographic software for simple, interference-free LC-ICP-MS.

Brand	Cr ^{III} recovery %	Cr ^{VI} recovery %
Mineral water A	105	99
Mineral water B	98	102
Mineral water C	106	108
Mineral water D	103	95
Mineral water E	102	106
Mineral water F	104	104

Spike recovery data for 0.1 µg/L spikes of Cr^{III} and Cr^{VI} in commercial mineral waters.

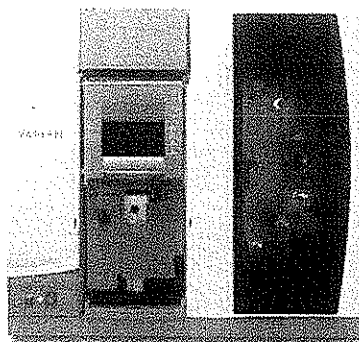


Chromatogram showing mineral water (blue) and mineral water spiked with 1 ppb Cr^{VI} and Cr^{III} (red). Samples were stabilized with EDTA prior to analysis.

A family of atomic spectroscopy solutions

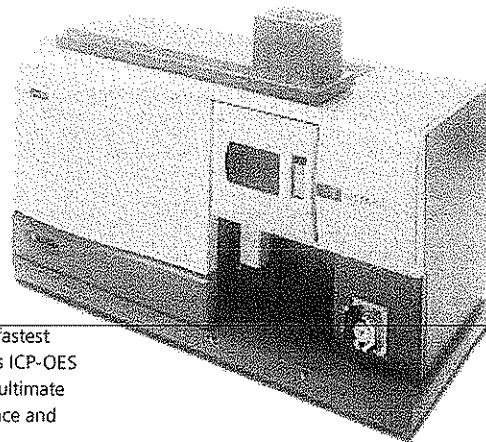
Varian, Inc. is a recognized world leader and innovator in AA, ICP-OES and ICP-MS, with over 50 years of comprehensive experience in analytical instrumentation.

Varian's AA range enables analysts to extend the performance and productivity boundaries of AA determinations, and is equally at home in routine laboratories where reliability and simple operation is vital.



Varian AA280 FS. The instrument of choice for high-throughput AA analysis where sensitivity, reliability, and productivity are essential.

Varian's ICP-OES systems provide the ultimate in productivity, flexibility, and sensitivity, to meet every application requirement.

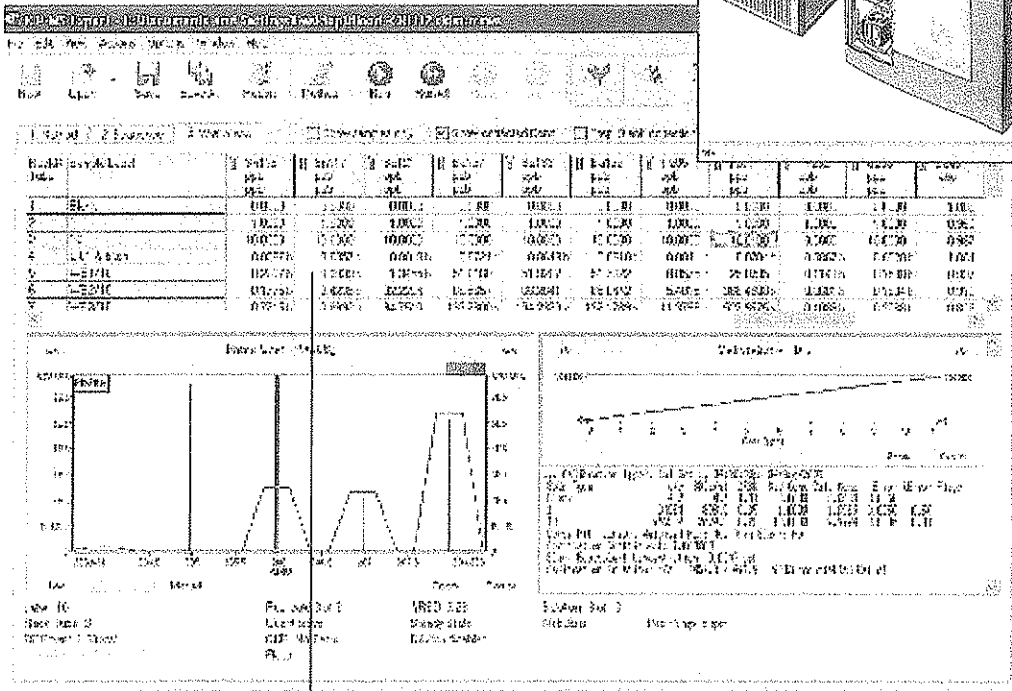
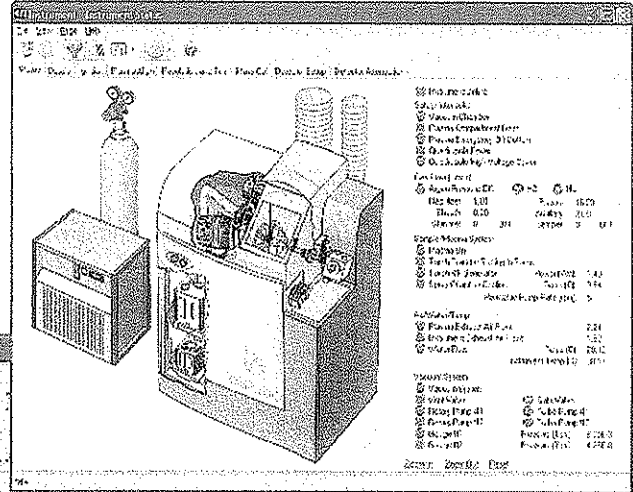


Vista-PRO™. The world's fastest simultaneous ICP-OES offering the ultimate in performance and productivity.

Setting the benchmark for ease-of-use

ICP-MS Expert software

Varian redefines ease-of-use with our Web-integrated ICP-MS worksheet software. ICP-MS Expert features a range of automated options, including setup and initialization routines, such as plasma alignment, mass calibration, and resolution tests. Varian's AutoMax makes method development easy by automating all ion optics, nebulizer, and plasma settings for optimum results.



The dynamic Instrument Status window provides a quick visual check of the status of all system components. It is an excellent diagnostic tool that maximizes instrument up time.

ICP-MS Expert switches automatically between multiple method condition sets within a single sample, giving optimum performance for specific element suites, without having to re-run samples.

Each worksheet cell provides all the results you need – including concentrations, intensities, statistics, replicate readings and graphical mass scans.

VARIAN, INC.

810/820-MS

ICP MASS SPECTROMETERS

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Clinical Research and Forensics

Food and Agriculture

Chemical Analysis

Environmental

Fuels and Energy

Material Sciences

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Varian 810-MS and 820-MS

ICP MASS SPECTROMETERS

Design Overview

The Varian 810-MS and 820-MS systems are compact, floor-mounted inductively coupled plasma mass spectrometers (ICP-MS) with full PC control of all instrument settings and compatible accessories. They feature patented¹ 90 degree reflecting ion optics system for gigahertz sensitivity (1000 Mc/s/mg/L) and low background and interferences. The Varian ICP-MS systems include a sample introduction system, solid state 27 MHz RF generator, and patented² Turner Interlaced Coils. Full PC control of plasma positioning, triple stage vacuum system, all plasma gas flows, mass analyzer, and Discrete Dynode Electron Multiplier (DDEM) detector is also included. The vacuum system is fully contained within the instrument for the smallest instrument footprint. Unique DDEM detector provides nine decades of dynamic range in an all-digital pulse design. Fully web-integrated ICP-MS Expert software uses Varian's worksheet concept for ease of use, rapid operator training, and commonality with other Varian, Inc. spectroscopy products. The Varian 820-MS system also features a unique Collision Reaction Interface (CRI) providing fast, flexible, interference-free analysis using simple collision and reaction gases.

Instrument Hardware

Sample introduction - ESIA	External Sample Introduction Assembly (ESIA) with Peltier-cooled spraychamber, nebulizer, and peristaltic pump mounted outside the torch box to eliminate temperature-induced drift. Features rapid start-up, easy access for maintenance and cleaning, and rapid switchover to accessories. <ul style="list-style-type: none"> • Low (400 µL/min) glass concentric nebulizer. Optional inert PFA nebulizer and a range of low-flow, inert microconcentric nebulizers • Peltier-cooled spraychamber with variable temperature control for enhanced stability and reduced oxide ion interferences. PC-controlled temperature from -15 °C to room temperature, insulated with inert polypropylene foam. • Fully PC-controlled peristaltic pump, variable speed from 0-50 rpm, three independently pressure adjustable channels for sample, drain, and internal standards or diluent • Standard one-piece, low flow, ball-and-socket connection torch. Optional semi-demountable torch and inert PFA transfer tubes available
Gas control	<ul style="list-style-type: none"> • One button automated optimization of all gas flows, including CRI gases (820-MS only)
RF generator	<ul style="list-style-type: none"> • 27.12 MHz solid-state, air-cooled, crystal locked RF generator in main instrument housing, 600-1600 W in 10 W increments. Optimum power settings defined and stored within each method for different sample types • Automatic ignition and shutdown. User-customizable ignition sequence for different accessories and plasma types
Plasma	<ul style="list-style-type: none"> • Optimize plasma parameters according to specified performance targets (sensitivity, interferences, etc.) • Full PC control of horizontal, vertical and sampling depth (Z position) of plasma for maximum sensitivity and minimum polyatomic interferences • Spacious plasma compartment simplifies routine maintenance
Cool plasma	<ul style="list-style-type: none"> • Patented Turner Interlaced Coils minimize polyatomic interferences without the use of a mechanical torch shield



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Instrument Hardware continued

Collision Reaction Interface	<ul style="list-style-type: none"> Standard on 820-MS, optional upgrade for 810-MS Reduces interferences by injecting simple collision and reaction gases (hydrogen or helium) into the plasma as it passes through the orifice of the cones Gas may be injected through the sampler cone, skimmer cone, or both All CRI gas flows controlled by mass flow controllers Rapid switchover between gas on and gas off, or between different collision and reaction gases 																																																															
Plasma interface	<ul style="list-style-type: none"> Easy access and removal of sampler and skimmer cone from simple threaded mounts One set of C-series high performance Ni cones provided as standard (810-MS) Platinum tipped C-series high performance cones optional. One set of CRI cones provided as standard (820-MS only) Orifice diameters: 1.1 mm sampler, 0.5 mm skimmer Water-cooled plasma interface for stability including individual and independent cooling of the cones for faster warm-up, improved stability, and faster cool down 																																																															
Ion optics	<ul style="list-style-type: none"> Patented¹ ion mirror reflects analyte ion beam through 90 degrees while photons and neutrals pass to the vacuum system. Ion mirror creates parabolic electrostatic field to focus the analyte ions with optimum efficiency at the quadrupole entrance aperture. Results in gigahertz sensitivity (1000 Mc/s/mg/L) Features easy access to extraction lens 1 and 2 for cleaning without breaking the vacuum Auto-optimization of all ion optics settings, including ion mirror, based on selected optimization criteria such as signal and interferences Quadrupole mass analyzer is off-axis using patented³ curved stainless steel entrance rods to ensure low background by further eliminating excited neutrals before the quadrupole 																																																															
Vacuum system	<ul style="list-style-type: none"> Pumps consist of two rotary (SD602 and SD302) and two V-301 turbomolecular pumps for efficient pumping and to eliminate excessive pump wear Rotary pumps mounted on forward facing pull-out slides for easy inspection of oil levels and easy access and changing of oil All vacuum components located in the main housing of the instrument to reduce noise in the laboratory and eliminate the requirement for extra floor or bench space Turbomolecular pumps feature maintenance-free ceramic bearings. First turbopump is positioned immediately behind the ion mirror and skimmer cone for maximum pumping efficiency and removal of unwanted neutrals and particles Pneumatic vacuum isolation gate between the first and second vacuum stages. Gate automatically closes in the event of a power failure 																																																															
Quadrupole	<ul style="list-style-type: none"> Precision-machined, stainless steel, round rods manufactured to micrometre tolerances and locked into ceramic mounts for a near-perfect hyperbolic field. Stainless steel construction permits determination of Hg without high memory. Patented³ curved entrance rods provide a double off-axis design and low background signals Easy access to mass analyzer and detector for cleaning or detector replacement. All voltages are fully interlocked and under PC control Solid-state air-cooled power supply Built-in, on board multi-channel scaler provides up to 40 channels per mass Range of 3 to 256 amu with 'zero blast' protection. Resolution adjustable from 0.5 to 1.2 amu Mass calibration stability: 0.05 amu per day Quadrupole RF frequency: 3.0 MHz Scan speed: 2000 amu/s Quadrupole settling time: <400 µs Minimum dwell time: 200 µs 																																																															
Detector	<ul style="list-style-type: none"> All-digital ETP AF250 Discrete Dynode Electron Multiplier (DDEM) as standard provides nine decades of linear dynamic range in an all-pulse-counting detector. No complex, time-consuming analog-to-digital cross calibrations Measuring dynodes mounted off-axis for reduced background 																																																															
Performance The performance data is typical unless otherwise noted.	<table border="0"> <tr> <td colspan="3">Sensitivity (810/820-MS, hot plasma high sensitivity mode, Mc/s/mg/L)</td> </tr> <tr> <td></td> <td>⁹Be</td> <td>>50</td> </tr> <tr> <td></td> <td>¹¹⁵In</td> <td>>1000</td> </tr> <tr> <td></td> <td>²³²Th</td> <td>>300</td> </tr> <tr> <td colspan="3">Precision (10 replicates, 20 minutes)</td> </tr> <tr> <td>Oxide ions</td> <td>CeO⁺/Ce⁺</td> <td><3%</td> </tr> <tr> <td>Doubly charged ions</td> <td>Ba⁺⁺/Ba⁺</td> <td><3%</td> </tr> <tr> <td>Background at 5 amu</td> <td></td> <td><10</td> </tr> <tr> <td colspan="3">Sensitivity (810/820-MS, hot plasma normal sensitivity mode, Mc/s/mg/L)</td> </tr> <tr> <td></td> <td>⁹Be</td> <td>>5</td> </tr> <tr> <td></td> <td>¹¹⁵In</td> <td>>50</td> </tr> <tr> <td></td> <td>²³²Th</td> <td>>20</td> </tr> <tr> <td colspan="3">Precision (10 replicates, 20 minutes)</td> </tr> <tr> <td colspan="3">Long term stability</td> </tr> <tr> <td>(10 µg/L multi-element standard aspirated for 4 hours)</td> <td></td> <td><4%</td> </tr> <tr> <td>Oxides</td> <td>CeO⁺/Ce⁺</td> <td><1% (<2% for CRI)</td> </tr> <tr> <td>Doubly charged ions</td> <td>Ba⁺⁺/Ba⁺</td> <td><3%</td> </tr> <tr> <td>Background (at 5 amu)</td> <td></td> <td><5 c/s</td> </tr> <tr> <td>Abundance sensitivity</td> <td></td> <td>10⁻⁶ low, 10⁻⁷ high on ²³Na</td> </tr> <tr> <td>Isotope ratio precision</td> <td></td> <td><0.1%</td> </tr> <tr> <td>CRI interference reduction</td> <td></td> <td>1 µg/L As readback in 1% HCl 1 µg/L ± 0.1 µg/L</td> </tr> </table>	Sensitivity (810/820-MS, hot plasma high sensitivity mode, Mc/s/mg/L)				⁹ Be	>50		¹¹⁵ In	>1000		²³² Th	>300	Precision (10 replicates, 20 minutes)			Oxide ions	CeO ⁺ /Ce ⁺	<3%	Doubly charged ions	Ba ⁺⁺ /Ba ⁺	<3%	Background at 5 amu		<10	Sensitivity (810/820-MS, hot plasma normal sensitivity mode, Mc/s/mg/L)				⁹ Be	>5		¹¹⁵ In	>50		²³² Th	>20	Precision (10 replicates, 20 minutes)			Long term stability			(10 µg/L multi-element standard aspirated for 4 hours)		<4%	Oxides	CeO ⁺ /Ce ⁺	<1% (<2% for CRI)	Doubly charged ions	Ba ⁺⁺ /Ba ⁺	<3%	Background (at 5 amu)		<5 c/s	Abundance sensitivity		10 ⁻⁶ low, 10 ⁻⁷ high on ²³ Na	Isotope ratio precision		<0.1%	CRI interference reduction		1 µg/L As readback in 1% HCl 1 µg/L ± 0.1 µg/L
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Instrument Hardware continued

Typical detection limits, hot plasma (ng/L) * CRI mode	7Li <1	51V <0.2*	71Ga <0.2	111Cd <0.2	153Eu <0.2	195Pt <0.3	290Bi <0.3
	9Be <0.5*	52Cr <0.6*	75As <0.6*	115In <0.1	157Gd <0.3	197Au <0.4	
	24Mg <0.5	55Mn <0.4*	78Se <2*	121Sb <0.1	159Tb <0.09	202Hg <1	
	27Al <0.8*	56Fe <2*	89Y <0.2	130Rh <0.1	163Dy <0.2	205Tl <1	
	40Ca <3*	59Co <0.2	90Zr <0.4	138Ba <0.2	165Ho <0.06	208-206Pb <0.3	
	45Sc <0.8	60Ni <2	98Mo <0.4	139La <0.4	175Lu <0.05	232Th <0.05	
	47Ti <3	65Cu <2	101Ru <0.4	140Ce <0.5	180Pd <0.4	238U <0.06	

Instrument Software

Features include:	Easy-to-use, web-integrated design. Features wizards that guide users through method and sequence development, and method templates for rapid development of commonly used methods.
	<ul style="list-style-type: none"> • Quantitate analytes on any possible combination of isotopes • Fully editable interference correction equations • A range of internal standard assignment options • Multiple condition sets allowing different element suites to be determined under different conditions with a single sample measurement, including CRI modes, hot plasma, cool plasma, etc. • Calibration routines for multi-element external calibration, method of standard additions, and isotope ratios • Automatic method optimization • Automatic monitoring and adjustment of nominated elements/isotopes in real time for optimal rinse out • High speed Time Resolved Signal (TRS) capability for interfacing to chromatographic (such as HPLC) and other separation techniques • Seamless LC-ICP-MS integration using Varian Galaxie™ chromatographic software • Fully editable sample label list of up to 1000 samples for analysis per worksheet • Autosampler rack and tube positions can be edited for true random access sampling • Calibrations can be programmed at a user specified rate either amongst the sample tubes or from centralized calibration tubes (rate driven) • Sequence options include full control of reporting actions at the end of the run, exporting of results at the end of the run, emailing of results, calibration, recalibration and resloping error actions, and saving mass scans during the analysis • Fully automated instrument initialization (start-up) routine, including instrument stabilization time, plasma X/Y position adjustment, mass calibration, and quadrupole resolution • Simultaneous real-time graphical display of signal as full mass scan, segments of mass scan, and signal response vs time for multiple isotopes or ratios • Post-run retrospective data editing • Wide variety of reporting and exporting options • Comprehensive set of instrument diagnostics and performance tests • Comprehensive help system

Accessories

Autosamplers	<ul style="list-style-type: none"> • SPS3 high-throughput autosampler, with fast X, Z, theta arm movement • Capacity for up to three sample racks and two standard racks Racks may be exchanged during analysis • Fully compatible with optional online diluter • Compatible with a wide range of commercially available, autoclavable, laboratory racks
Diluter	<ul style="list-style-type: none"> • Optional precision syringe auto-diluter for SPS3, performs automatic online over-range dilution and automatic off-line sample and calibration solution preparation using optional software
Automatic online dilution	<ul style="list-style-type: none"> • Online dilution is selectable on a per-isotope basis • Serial dilution of samples until user selected analytes are in range • Choose to dilute with blank or from separate diluent vessel. Dilute on internal standard error option and automatic correction of internal standard factors to account for dilution
Intelligent off-line solution preparation	<ul style="list-style-type: none"> • Optional RoboPrep™ software utility allows off-line dilution and preparation of samples and standards • Provides customization of rack configurations to allow dilution of samples directly in digester racks • Includes capabilities for preparation of multi-element calibration standards, sample spiking, and standard additions

Varian 810-MS and 820-MS

Accessories continued

Productivity Pack	<ul style="list-style-type: none"> Optional four-port Switching Valve System (SVS) immediately rinses the sample introduction system while the next sample is being introduced to the instrument Reduces carryover, increases sample throughput, and decreases cost per analysis
Integrated speciation (LC-ICP-MS)	<ul style="list-style-type: none"> Seamless LC-ICP-MS integration using Varian Galaxie™ chromatographic software Real-time display of time resolved chromatographic signals Full control of LC injections, pumps, autosamplers and 810/820-MS data acquisition
Clean Room Pack	<ul style="list-style-type: none"> Includes o-ring free, inert sample introduction system, platinum-tipped cones, and additional exhaust outlet panel Removes all exhaust air from the instrument, maintaining the integrity of the highly sensitive clean room environment Allows analysis of aggressive samples and acids, such as hydrofluoric acid
Vapor generation	<ul style="list-style-type: none"> Modular continuous flow vapor generator for the determination of Hg, As, Se, Sb, Te, Bi, and Sn at ng/L and pg/L levels Compatible with SPS3 autosampler
AGM-1	<ul style="list-style-type: none"> Adds oxygen to the plasma to eliminate carbon deposition on the injector tube and sampler cone when analyzing organic solvents
Microconcentric nebulizer	<ul style="list-style-type: none"> Compatible with a range of microconcentric nebulizers for sample volume limited applications
Laser ablation	<ul style="list-style-type: none"> Fully compatible with a range of laser ablation accessories

ICP-MS Installation Requirements

For details of Varian ICP-MS installation requirements refer to the pre-installation manual, Varian publication number 8510206700.

Varian Customer Support Policies

Warranty	12 months, though this may vary by location. One-year warranty on DDEM detector with pro-rata warranty on replacements.
Hardware support period	Five (5) years from date of last unit manufacture. After this time, parts and supplies will be provided if available.
Software support	Software upgrades to fix nonconformances or safety issues will be issued free of charge. Software upgrades for additional functionality will require a fee. Availability of TeleDiagnostic™ remote diagnostic support may vary according to location.
Online user group	All Varian ICP-MS users can join our free email user group, MassNet, which has access to Varian ICP-MS users and Varian support staff worldwide.

Further Details

For further details on the following:

- PC configurations
 - GLP, 21 CFR Part 11, and Validation functionality
 - Accessory specifications and application information
 - Part numbers and other ordering information
 - Varian ICP-MS spectrometers are manufactured according to a quality system certified to ISO-9001
- Please consult your Varian, Inc. office or supplier, or our Web site at www.varianinc.com.

- US Patent 6,614,021 B1
 - US Patent 5,194,731
 - US Patent 6,762,407 B2
- Other patents pending.



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