

RFQ COPY

TYPE NAME/ADDRESS HERE

AGILENT TECHNOLOGIES INC 2850 CENTERVILLE RD WILMINGTON, DE 19808

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

Request for REQUIRED Quotation

LBS11091

PAGE 1

ADDRESS CORRESPONDENCE TO ATTENTION OF

ROBERTA WAGNER 304-558-0067

HEALTH AND HUMAN RESOURCES ENVIRONMENTAL CHEMISTRY LAB

4710 CHIMNEY DRIVE CHARLESTON, WV 25302

304-558-3530

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GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.

3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division

and have paid the required \$125 fee.

- 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
- 5. Payment may only be made after the delivery and acceptance of goods or services.
- 6. Interest may be paid for late payment in accordance with the West Virginia Code.
- 7. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 10. The laws of the State of West Virginia and the Legislative Rules of the Purchasing Division shall govern the purchasing process.
- 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- 12. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
- 13. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 14. 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.
- 15. 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, and the West Virginia Insurance Commission. 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.
- 16. 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 material, 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.

INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
- 2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- 4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
- 5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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

Request for Quotation

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LBS11091

PAGE 2

ADDRESS CORRESPONDENCE TO ATTENTION OF CORRESPONDENCE TO ATTEN

ROBERTA WAGNER 304-558-0067

HEALTH AND HUMAN RESOURCES ENVIRONMENTAL CHEMISTRY LAB

4710 CHIMNEY DRIVE

25302 3

304-558-3530

FREIGHT TERMS SHIP VIA FOB DATE PRINTED TERMS OF SALE 01/13/2011 BID OPENING DATE: BID OPENING TIME 01:30PM 02/17/2011 UNIT PRICE AMOUNT ITEM NUMBER LINE QUANTITY IN THE EVENT THE VENDOR/CONTRACTOR FILES BANKRUPTCY: FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER. INQUIRIES: WRITTEN QUESTIONS SHALL BE ACCEPTED THROUGH CLOSE OF 2/1/2011. QUESTIONS MAY BE SENT VIA BUSINESS ON USPS, FAX, COURIER OR E-MAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF HOSSIBLE, E-MAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRIES TO: ROBERTA WAGNER DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25311 FAX: 304-558-4115 E-MAIL: ROBERTA.A.WAGNER@WV.GOV FILEASE NOTE: PROOF OF WORKER'S COMPENSATION INSURANCE IS REQUIRED. THE MODEL/BRAND/SECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY VENDORS WHO ARE BIDDING HARTICULAR BRAND OR VENDOR. ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT HITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR THE STATE RESERVES THE RIGHT REJECTION OF THE BID. TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATION SEE REVERSE SIDE FOR TERMS AND CONDITIONS SIGNATURE TELEPHONE DATE TITLE FEIN ADDRESS CHANGES TO BE NOTED ABOVE



VENDOR

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

Request for
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ROBERTA WAGNER

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HEALTH AND HUMAN RESOURCES ENVIRONMENTAL CHEMISTRY LAB

4710 CHIMNEY DRIVE CHARLESTON, WV

304-558-3530 25302

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

Request for REGINDMBER Quotation

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

HEALTH AND HUMAN RESOURCES TYPE NAME/ADDRESS HERE ENVIRONMENTAL CHEMISTRY LAB 4710 CHIMNEY DRIVE CHARLESTON, WV 304-558-3530 25302

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Liquid Chromatograph- Mass Spectrometer/Mass Spectrometer Bid

SPECIFICATIONS AND REQUIREMENTS

The Threat Preparedness and Response Section, Chemical Threats, of the Office of Laboratory Services (CT) is requesting to purchase a Liquid Chromatograph/Mass Spectrometer/Mass Spectrometer (LC/MS/MS).

- 1. A LC/MS/MS instrument is needed by CT to meet the requirements of the Public Health Emergency Preparedness cooperative agreement with the Center for Disease Control and Prevention (CDC), Atlanta, Georgia.
- 2. The technology of this LC/MS/MS instrument must be configured specifically for the State Department of Health laboratories who are members of the US Centers for Disease Control LRN-C Program. The resolution and sensitivity capability must be able to meet the limits of detection and minimum reporting levels required for these agents as stipulated under the Laboratory Response Network Chemical, Quality Assurance Program, Validation Guidelines.
- 3. The LC/MS/MS instrument must come equipped with a triple quadrupole mass spectrometer, workstation PC and printer, software with 2 data analysis licenses, installation, and familiarization and on-site operator training for two analysts.
- 4. The LC/MS/MS instrument must have an electrospray ionization (ESI) and atmospheric pressure chemical ionization (APCI) source with spray chamber, corona discharge needle, nebulizer, APCI vaporizer, and test calibration kit.
- 5. The LC/MS/MS instrument must have a nitrogen gas generator and a maintenance kit.
- 6. The LC/MS/MS instrument must have a binary pump system with solvent cabinet, 2 solvent bottles, connecting capillaries, and CAN cable. It must also contain a maintenance kit, active seal option, and solvent selection valve option.

- 7. The LC/MS/MS instrument system package must have a micro degasser which includes a 4-channel micro-vacuum, degasser, remote control cable, and connecting tubing.
- 8. The LC/MS/MS instrument must be fully compatible with a system controlled auto sampler with a 100uL injection loop, tray for two well plates, 10x 2mL vials, 2x54- vial plates, Rheodyne injection valve (600 bar), and 05 m CAN cable.
- 9. The LC/MS/MS instrument system must have a Peltier type device to control the temperature of the auto samplers/fraction collectors.
- 10.For rapid resolution LC, the column compartment temperature must maximize to 100°C and pressures up to 600 bar.
- 11.The LC/MS/MS instrument must come with a high pressure liquid chromatograph (HPLC) column oven with a temperature tolerance of +/- 2°C.
- 12.All consumables required to complete the installation must arrive with the LC/MS/MS instrument.
- 13. The LC/MS/MS instrument must be fully automated for analysis with a system controller that is loaded with the necessary software. System controller software must be able to export data to the existing Laboratory Information Management System (LIMS).
- 14. The LC/MS/MS instrument system controller software must be able to fulfill all of the analytical and quality control requirements stated in the Laboratory Response Network Chemical, Quality Assurance Program, Validation Guidelines.

Installation Requirements:

1. Vendor must install the LC/MS/MS instrument system in the Threat Preparedness Laboratory in the Elk Office Center building at 4710 Chimney Drive, Suite G, Charleston, WV, 25302.

- 2. Vendor must provide to the Threat Preparedness (TP) Program Manager all relevant information concerning the installation in a documented form at least 2 weeks prior to the scheduled installation.
- 3. At the time of the LC/MS/MS instrument installation, Vendor must provide to the TP Program Manager: All relevant system manuals for hardware components: system and application software documentation: and a parts, supplies, and accessories catalog.
- 4. Vendor must include all necessary cables and fittings and other costs for installation in the submitted bid price.
- 5. Installation and on-site training must be completed within 90 days of delivery date.

Training Requirements

- 1. Vendor must provide, upon completion of installation, two days of on-site training for the Threat Preparedness personnel on the operation and user maintenance requirements of the LC/MS/MS instrument system.
- 2. All costs incurred by the Vendor including travel, lodging, and living expenses necessary to provide this basic training shall be included in the bid price.

Warranty Requirements

- 1. Vendor must include in the total price of the equipment with at least an one-year factory warranty covering all system components.
- 2. Software must have a 90-day warranty.
- 3. Warranty must include on-site service including labor, travel time, and expenses with a 72-hour on-site response time at no extra cost to maintain the specifications listed in the bid and the Vendor's product specifications. Vendor must provide a copy of the warranty.
- 4. Warranty must begin upon acceptance of the completed installation and training.

Delivery Requirements

- 1. The LC/MS/MS instrument and its components must be shipped for "inside delivery" by a freight delivery company and must be delivered within 90 days of receipt of order.
- 2. The LC/MS/MS instrument and its components must be shipped "F O B Destination" unless otherwise stated in quote by Vendor. Any shipping and handling requirements must be stated in Vendor's quote.

RFQ COST SHEET

Bidders shall provide a cost for the following:	
Liquid Chromatograph/Mass Spectrometer/Mass Spectrometer	
(LC/MS/MS)	\$ 269,083 5°C
On-Site User Training (at installation of equipment)	s 4680.00

Freight/Shipping Charge \$_INCLUBED

Total Cost \$ 273,763.50

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

Vendor Signature

02/14/2011

Date

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1.	Application is made for 2.5% resident vendor preference for the reason checked: Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preced-
graph of the following.	ing the date of this certification; or, Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents
***************************************	and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2.	Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3.	Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4.	Application is made for 5% resident vendor preference for the reason checked: Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5.	Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6.	Application is made for 3.5% resident vendor proference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
requirer against	inderstands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the nents for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency cted from any unpaid balance on the contract or purchase order.
authoriz the requ deemed	nission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and es the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid ired business taxes, provided that such information chas not contain the amounts of taxes paid nor any other information by the Tax Commissioner to be confidential.
and acc	penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true curate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate is during the term of the contract, Bidder will not yothe Purchasing Division in writing immediately.
Bidder:	S:ˈʒme d:
Date:	`le:

*Check any combination of preference consideration(s) indicated acove, which you are entitled to receive,

RFQ No. _LBS 11091

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: 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.

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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or 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 exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

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.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name:				
Authorized 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 _			

WV-96 Rev. 10/07

ACCEPTED BY:

Date: ____

AGREEMENT ADDENDUM

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

- 1. <u>DISPUTES</u> 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.
- 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.
- 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.

STATE OF WEST VIRGINIA	VENDUR
Spending Unit:	Company Name:
Signed:	Signed:
ent d	Title:

Date: ___

ATTACHMENT P.O.# LBS11091

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

Agreed		.	
Signature	Date	Signature	Date
Title	-	Title	
Company Name		Agency/Division	

7. . .



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Mark Fashi	an 7	40-36	9-5475	04/15/2011

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State of West Virginia LBS11091 02-17-2011

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
·				
G6430AA	1.000 EA	270,000.00 USD	67,500.00-	202,500.00
6430 Triple Quadrupole LC/MS system.				
Includes: 6430 Triple Quad,				
workstation PC and printer, MassHunter				
software with 2 data analysis licenses,				
installation, familiarization training,				
and PC image recovery service.				
With the following configuration:				
Ship-to Country: USA				
Installation (44K)				
Familiarization at Installation (44L)				
1 Year SW Update/Phone Assist (44W)				
Training (44P)				
1YR PC Repair Recovery Service (0TP)				
		Item Total		202,500.00



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Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
G1947B LC/MS APCI Source Includes APCI spray chamber, corona discharge needle, nebulizer, APCI vaporizer, and test calibration kit.	1.000 EA	12,231.00 USD	3,057.75-	9,173.25
With the following configuration: Configuration for usage with: Triple Quad Ship-to Country: USA Installation (44K) Familiarization at Installation (44L)				
		Item Total		9,173.25
pecial discount of 25.00 % is applied.				
G1379B 1260 Infinity Micro Degasser. Includes 4-channel micro-vacuum degasser, remote control cable and connecting tubing.	1.000 EA	4,098.00 USD	1,024.50-	3,073.50
With the following configuration: Ship-to Country: USA Installation (44K)				
		item Total		3,073.50
pecial discount of 25.00 % is applied.				



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G1312B	1.000	EA	17,319.00 USD	4,329.75-	12,989.25
1260 Infinity Binary Pump					
Maximum pressure 600 bar. Includes					
binary pump, column, connecting					
capillaries, solvent cabinet and CAN cable.					
With the following configuration:					
Add Tool Kit (001): Tool Kit included					
Ship-to Country: USA					
HPLC System Tool Kit	1	EA	286.00 USD	71.50-	214.50
HPLC Starter Kit incl. 0.17mm id cap	1	EA	899.00 USD	224.75-	674.25
Active Seal Wash	1	EA	1,391.00 USD	347.75-	1,043.25
Solvent Selection	1	EA	1,820.00 USD	455.00-	1,365.00
Installation (44K)					
Familiarization at Installation (44L)					
			item Total		16,286.25

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Quote No.	Crea	ate Date	Delivery Time	Page
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Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
G1367E 1260 Infinity High Performance Autosampler. Low carryover design. Up to 600 bar. Includes tray for 2 well-plates and 10x2mL-vials, and 100 uL loop. Optional cooling.	1.000 EA	21,050.00 USD	5,262.50-	15,787.50
With the following configuration: Ship-to Country: USA LAN Communication Interface Installation (44K) Familiarization at Installation (44L)	1 EA	727.00 USD	181.75-	545.25
		item Total		16,332.75
Special discount of 25.00 % is applied.				
G1330B 1290 Infinity Thermostat Use with 1260/1290 autosampler/Fraction collector/spotter. Features Peltier device to control the temperature with humidity control.	1.000 EA	5,405.00 USD	1,351.25-	4,053.75
With the following configuration: Ship-to Country: USA Installation (44K)				
		Item Total		4,053.75
Special discount of 25.00 % is applied.				



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Contact		Pho	ne no.	Valid to
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Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
G1953A PEAK Nitrogen Generator System PEAK	1.000 EA	17,725.00 USD	4,431.25-	13,293.75
NM32LA nitrogen generator with air				
compressor. Includes install. For extended				
warranty and other support services please contact PEAK directly at				
http://www.peakscientific.com/				
With the following configuration:				
Ship-to Country : USA				
Installation (44K)				
		Item Total		13,293.75

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Quote No.	Create Date	Delivery Time	Page	
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Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
H2149A Chemical Analysis Application Consulting Provides on-site assistance. For consulting, training, documentation and implementation services. Requires option.	1.000 EA			
With the following configuration: Ship-to Country: USA Two Day On-site (Includes Travel)	1 EA	5,200.00 USD	520.00-	4,680.00
		ltem Total		4,680.00
pecial discount of 10.00 % is applied.				
G1316C 1290 Infinity Thermostatted Column Compartment. For use with any 1290 Infinity or 1260 Infinity system requiring low dispersion or special valve solutions. Temperature up to 100 degree C.	1.000 EA	5,827.00 USD	1,456.75-	4,370.25
With the following configuration: Ship-to Country: USA Installation (44K) Familiarization at Installation (44L)				
		Item Total		4,370.25
pecial discount of 25.00 % is applied.				



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			Gross Amount	: \$	363,978.00
			Total Discount	: \$	90,214.50
			Total	: \$	273,763.50



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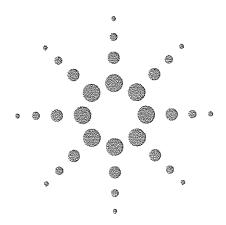
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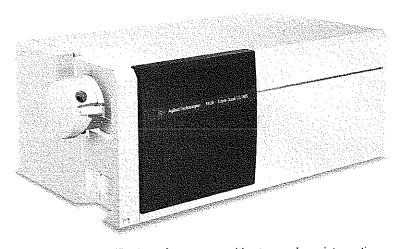
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Agilent 6430 Triple Quadrupole LC/MS with Dynamic MRM

Data Sheet



The 6430 Triple Quadrupole LC/MS achieves sensitivity and resolution specifications after autotune without manual user intervention.

Parameter	Measure	Specification
MS/MS sensitivity	1 pg of reserpine injected on column	Signal-to-noise ratio > 300:1
Mass range		m∕z 5 – 2,250
Polarity switching		Switch from positive to negative polarity in 30 ms
Mass resolution (autotune) Mass resolution (manual tune)	Full width at half maximum Full width at half maximum	0.7 Da 0.5 Da
Mass accuracy		0.1 Da from 5 — 1,000 <i>m/z</i> 0.01% from 1,000 — 2,000 <i>m/z</i> 0.02% from 2,000 — 2,250 <i>m/z</i>
Mass stability		< 0.1 Da in 24 h
Dynamic range		> 6.0 X 10 ⁶
Scan rate		5,200 Da/s
Minimum MRM dwell time		1 ms
MRM transitions		500 per time segment, > 40,000 ion transitions per method
Dynamic MRM transitions		4,000 ion transitions per method
Collision cell ion clearance		< 1 ms



General system specifications

Parameter	Measure Measure	
Single point of control	Single-point data system method capability with full control of Agilent 1200 Series HPLC systems and the 6430A Triple Quadrupole LC/MS System	
Time programming	 Polarity change in time segment Continuous polarity change during entire method Scan and SIM or MRM (plus other modes of data collection) Dynamic MRM aligns MRMs with compound retention time 	
Wide range of ionization sources	 Electrospray (ESI) Multimode source (simultaneous ESI and APCI) ChipCube for integrated nanoLC APPI (Photoionization) 	
Detector	High-energy conversion dynode and high-gain electron multiplier horn	
Vacuum system	Two turbomolecular pumps with one mechanical pump	

Ordering information

G6430AA: 6430 Triple Quadrupole LC/MS System

Includes the 6430 Triple Quadrupole Mass Spectrometer, MassHunter Workstation Software with both compliance and method optimization software, a PC, monitor and printer, and service installation of the system.

www.agilent.com/chem/qqq

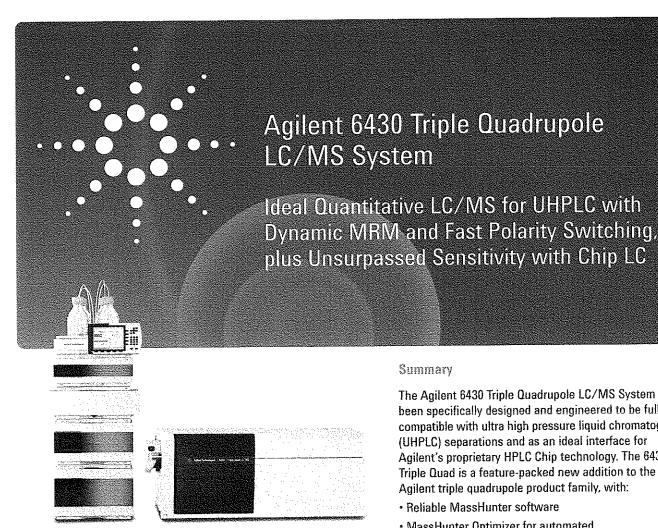
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Summary

The Agilent 6430 Triple Quadrupole LC/MS System has been specifically designed and engineered to be fully compatible with ultra high pressure liquid chromatography (UHPLC) separations and as an ideal interface for Agilent's proprietary HPLC Chip technology. The 6430 Triple Quad is a feature-packed new addition to the Agilent triple quadrupole product family, with:

- · Reliable MassHunter software
- MassHunter Optimizer for automated compound optimization
- · 1 ms dwell times with no collision cell cross talk
- Dynamic MRM methods for up to 4,000 transitions
- · 30 ms polarity switching for fast analyses
- · Low attomole sensitivity in peptide quantitation with Agilent's advanced HPLC-Chip Nano LC system

Controlled by proven MassHunter software, the new 6430 Triple Quad joins the Agilent 6410 Triple Quadrupole LC/MS System, an entry-level system for routine quantitative analysis, and the flagship Agilent 6460 Triple Quadrupole LC/MS System with unrivalled sensitivity powered by Agilent Jet Stream technology, to create a powerful suite of products to meet the quantitation demands of any application or budget. The 6430 Triple Quad offers the same combination of superior performance, exceptional reliability, and excellent overall cost-of-ownership for which Agilent is famous.

Our measure is your success.



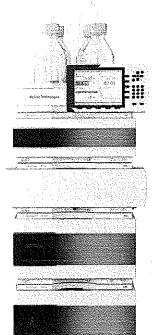
Fast MRM Analysis and Polarity Switching (Plus Sensitivity) — Perfect for UHPLC

The 1290 Infinity LC System for UHPLC offers tremendous productivity gains versus conventional HPLC. UHPLC with sub-2-micron columns can dramatically reduce separation times and maximize chromatographic resolution. This frequently results in very narrow peaks which may be less than a second wide. The new 6430 Triple Quad has been engineered to achieve optimal quantitation of narrow UHPLC peaks.

Reliable peak integration requires at least ten data points across a peak, mandating MS cycle times as low as 100 ms for a second-wide peak. Complex, multi-analyte assays require very short dwell times. The 6430 Triple Quad can keep up! It features extremely fast ion monitoring and polarity switching. The enhanced electronics in the 6430 Triple Quad enable 1 ms dwell times with no collision cell cross talk. Further, the introduction of dynamic MRM methods allows dynamic selection of MRM transitions during a method, based on retention time windows, to optimize instrument cycle time and maximize collection of high quality quantitative data.1 This allows hundreds of compounds to

be analyzed in a single LC/MS run. Samples containing compounds with both positive and negative ion transitions require fast polarity switching — the 6430 Triple Quad can change polarity and begin acquiring data in just 30 ms. The improvement in polarity switching times is derived from a new, resistively coated capillary that reacts very quickly to voltage changes.

In addition to fast analysis capabilities, the 6430 Triple Quad is more sensitive than its predecessor — it has a standard second turbo pump in the Q3 region to enhance ion transmission by reducing chemical noise.



Designed as an IDEAL SYSTEM for UHPLC/MS Analyses

- 1200 bar pressure (up to 2 mL/min) for the fastest separations
- · 30 ms polarity switching for fast peaks
- 1 ms dwell times for analyzing hundreds of compounds
- · Dynamic MRM methods for analyzing thousands of ion transitions
- · Improved sensitivity

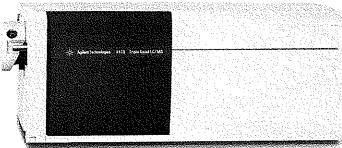


Figure 1: The Agilent 1290 Infinity LC System and the Agilent 6430 Triple Quadrupole LC/MS System. The 6430 Triple Quad is an ideal MS system for UHPLC separations.

As part of a metabolic stability assay2 (Figure 2), several pharmaceutical compounds and their metabolites were separated using a 1.5 min method with the Agilent 1290 Infinity LC System, using a sub-2-micron column and pressure of 1060 bar. The diclofenac ion transition was monitored along with four other positive ion transitions and one negative ion transition. The cycle time for six ion transitions and positive/negative polarity switching was less than 115 ms. This narrow peak was sampled 9 times, creating an excellent basis for peak area determination - the area RSD value for diclofenac was less than 5%.

Dynamic MRN Methods Enable Complex Multi-Residue Analyses

Dynamic MRM methods dramatically reduce MS cycle times for complex multi-analyte assays. MRM transition lists are built dynamically during the LC separation based on a retention time window for each analyte. Using the dynamic MRM method capabilities of the 6430 Triple Quad, 224 pesticides were analyzed in only 7 min as shown in Figure 3. The average peak widths were about 1 sec wide, requiring an MS cycle time of about 100 ms for precise and accurate quantitation of all compounds. The minimum dwell time was a very fast 2.5 ms. The excellent retention time precision of the 1290 Infinity LC allowed very narrow retention time windows and reduced the number of required ion transitions at any point during the chromatogram to fewer than 20. The precision of this very fast pesticide assay was excellent, with an average peak area RSD of less than 5%.

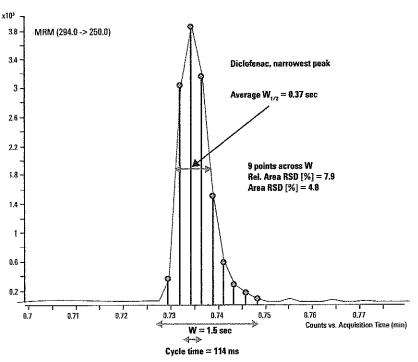


Fig. 2: MRM chromatogram of diclofenac obtained using a flow rate of 1.5 mL/min. The graphic shows the peak width at half height (0.37 sec) and the number of data points collected across the peak (9 data points).

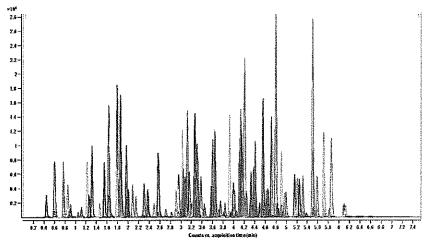


Figure 3. Fast analysis of 224-pesticides at the 500 ppt level in less than 7 min using the new Agilent 1290 Infinity LC and 6430 Triple Quad with dynamic MRM. Average peak area RSD was less than 5%

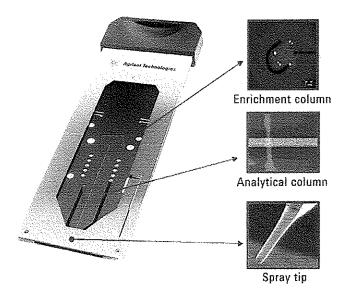


Figure 4. ChipCube with integrated valves, columns and spray tip.

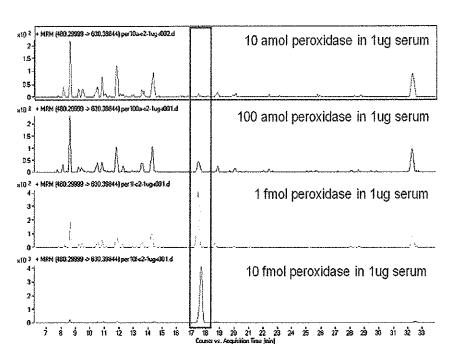


Figure 5. Attornolar detections limits for exogenous peroxidase protein spiked into immunodepleted human plasma, analyzed with the HPLC-Chip coupled with a 6430 Triple Quad.

Robust, Reliable, Sensitive Nanospray with HPLC-Chip

The highest possible sensitivity in LC/MS is achieved with the smallest column diameters. Nano LC columns with an i.d. of 75 microns offer an obvious route to high sensitivity but have historically suffered from a lack of robustness and precision. Agilent's revolutionary HPLC-Chip/MS technology provides nanoscale LC on a plug-and-play microfluidic chip, minimizing leaks and dead volumes. The chip contains a fully integrated electrospray emitter for unprecedented spray stability.

The 6430 Triple Quad with an HPLC-Chip/MS interface is ideal for targeted protein quantitation using dynamic MRM methods. This system can achieve low attomolar sensitivity (see Figure 5) in plasma protein digests.

Dynamic MRM methods on the HPLC-Chip/6430 Triple Quad system can be used to quantitate hundreds or thousands of peptides, as shown in the analysis of the complex peptide digest shown in **Figure 6**. More than 2,000 ion transitions were monitored during this LC/MS analysis.

Conclusions

The new Agilent 6430 Triple Quad LC/MS features seamless integration with the Agilent 1290 Infinity LC System and the proprietary Agilent HPLC-Chip/MS nanospray interface. This new system features:

- Extensive sampling capabilities for narrow UHPLC peaks
- · Fast 1 ms MRM dwell times
- Dynamic MRM methods for complex, multi-analyte assays
- · Fast 30 ms polarity switching times
- Attomole sensitivity for biomarker validation studies using the HPLC-Chip and 6430 Triple Quad
- Rugged, reliable MassHunter software control
- Automated method optimization using MassHunter Optimizer and Peptide Optimizer software
- 21 CFR Part 11 support for validated methods

With legendary Agilent robustness and reliability, and a commitment to highest quality service and support, the 6430 Triple Quad is a productive new addition to the Agilent 6400 Series Triple Quadrupole LC/MS product family.

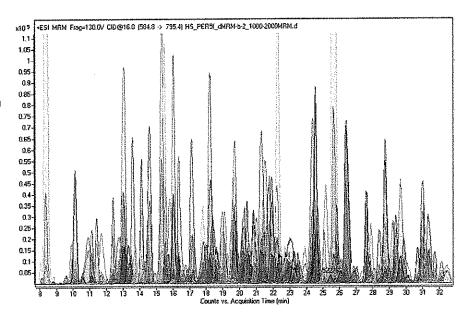


Figure 6. 2,000 Dynamic MRM transitions from the tryptic digest of immunodepleted human plasma using the HPLC-Chip/6430 Triple Quad system.

References

- Peter Stone, Thomas Glauner, Frank Kuhlmann, Tim Schlabach and Ken Miller, "New Dynamic MRM Mode Improves Data Quality and Triple Quad Quantification in Complex Analyses," Agilent publication number 5990-3595EN. 2009.
- Anabel S. Fandiño, Edgar Naegele, "Metabolic Stability Study Using Cassette Analysis and Polarity Switching in a UHPLC Triple Quad LC/MS System," Agilent publication number 5990-4469EN, 2009.

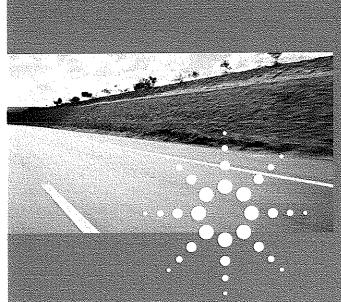
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Agilent MassHunter Workstation Software

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path to all the information in your samples.

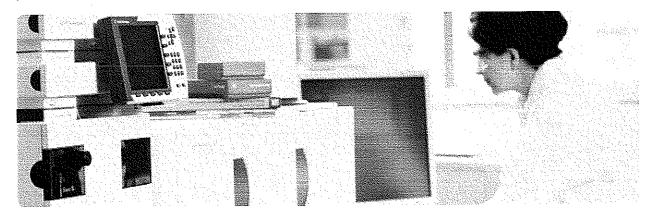
Our measure is your success.



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From instrument tuning to final report, Agilent's MassHunter Workstation software is designed to make all your MS analyses faster, easier and more productive.

The software provides a single acquisition platform for Agilent LC/MS TOF, Q-TOF and triple quad instruments—and a single, consistent data processing package for all of your Agilent MS platforms, including LC/MS, GC/MS and ICP-MS.* In addition, it incorporates advanced feature extraction, data mining and data processing tools that let you rapidly and accurately extract all available information from the compounds in your samples. Not just peaks and data points, but answers.



MassHunter Workstation software's powerful feature extraction and data mining capabilities perfectly complement the best-in-class performance of Agilent's LC/MS, GC/MS and ICP-MS platforms.*

MassHunter's fully automated data analysis routines fully exploit the high information content of accurate-mass MS and MS/MS data from Agilent TOF and Q-TOF LC/MS systems. So you can:

- Confidently find all compounds in your samples or differences between samples and sample sets.
 MassHunter software helps you extract all relevant information in a chromatographic run—not just chromatograms and spectra.
- Easily confirm and identify unknowns. MassHunter software simplifies data mining and automatic identification by using the accurate-mass optional retention time (AMRT) database, MS/MS library searches (coming soon) and molecular formula generation (MFG).

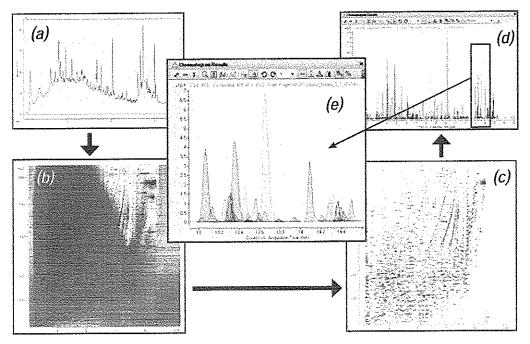
*MassHunter Workstation for GC/MS and LC/MS single guad is coming soon.

Unprecedented data processing productivity

"Compound-centric" data processing and intuitive, workflowdriven navigation shorten the path between raw analytical results and the answers you're looking for. So you can:

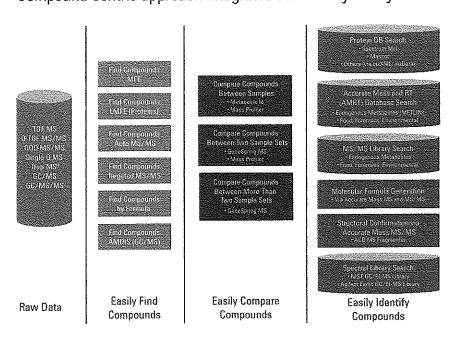
- Spend less time with quantitative analysis. A powerful, application-centric quantitation package with task-driven functionality eliminates tedious manual processing steps.
- Review results of complex data, quickly and easily.
 An innovative user interface displays all relevant info at a glance and lets you easily compare data files.
- Minimize analysis time and maximize your lab's throughput. Timesaving features such as a curve-fit assistant, dynamically linked results, outlier flagging, batch-at-a-glance data review and customizable views help to speed up every analysis.

More thorough analysis, more confident results



Powerful tools help you extract the information you're looking for. Unlike traditional data processing software that works on 2D chromatograms (a), MassHunter Workstation software uses its unique Molecular Feature Extractor (MFE) algorithm to work directly with the 3D accurate mass LC/MS data set (b), MFE fully and automatically removes noise due to matrix contribution (c) and extracts compound chromatograms (d) and compound mass spectra for each component. The overlaid compound chromatograms (e) show the exact location and elution profile for each compound in the sample, even if multiple compounds partially or fully co-elute.

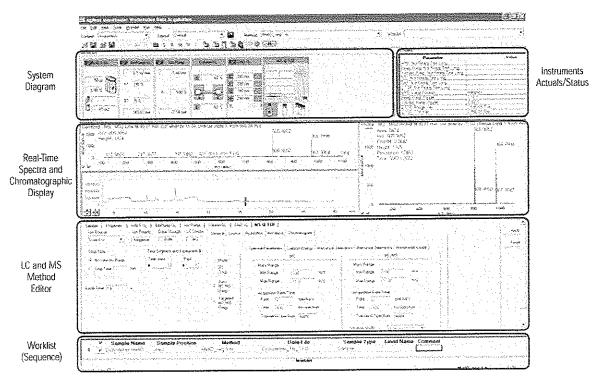
Compound-centric approach integrates seamlessly with your workflows



Agilent MassHunter software is designed around your workflows. One easy-to-learn interface not only handles your basic qualitative and quantitative analysis tasks, but also integrates seamlessly with applications such as Metabolite ID, Metabolomic Profiling, Biomarker Discovery and Intact Protein and synthetic peptide characterization. (See page 7, "Integrated, application-driven database and library searching.")

All the relevant information, at your command.

MassHunter Workstation's intuitive, "flat" user interface lets you see all relevant information at a glance. You don't have to switch views or dodge annoying pop-up boxes to find what you're looking for. The workflow-driven layout even minimizes mouse travel and the number of clicks you need. The software also provides full support for dual monitors.



Instrument set-up and control. On a single screen, MassHunter Workstation's Data Acquisition software gives you everything you need to monitor and control your run.

One acquisition software for all LC/MS platforms

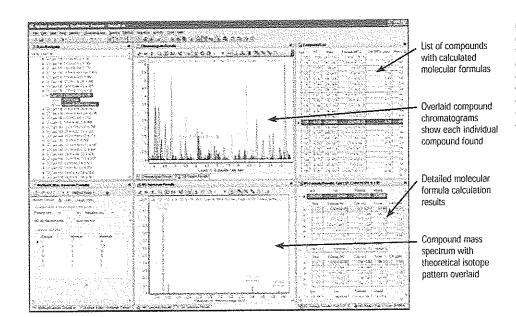
The MassHunter acquisition software features comprehensive data-dependent and targeted MS/MS capabilities for the Q-TOF, as well as automated MRM method development software (MassHunter Optimizer), scheduled MRM and 21CFRPart11 compliance support for the triple quad instrument. All instruments share the control of LC modules and a worklist editor, with features similar to Microsoft Excel® spreadsheet software, to set up the acquisition of multiple samples.

Innovative compound-centric data navigation

Compound-centric data organization and navigation make it easy to review and analyze complex MS data. In MassHunter Qualitative Analysis, all automatically extracted spectra and chromatograms are organized as entries in a navigation tree and can be navigated compound by compound.

The entries are dynamically linked with compound mass spectra and chromatograms, mass lists and a configurable table summarizing all compound-specific results that could be extracted. Results can also include information from additional processing steps such as molecular formula generation, charge state assignment and deconvolution, AMRT database search results, Find-by-Formula results and MS/MS library search* results.

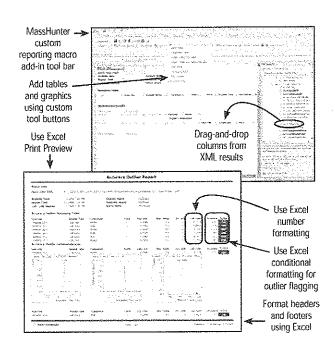
^{*}MS/MS libraries coming soon.



Qualitative Analysis.
MassHunter Workstation's workflow-based user interface enables fast, intuitive compound-centric data mining and navigation, and shows you the information you need at a glance.

Compound-centric results storage and reporting, too

MassHunter Workstation software stores all processing results on a compound-by-compound basis along with the data file, including compound spectra, compound chromatograms, molecular formulas, database and library search results, charge state, deconvolution results, isotope pattern, and more. You can report results on a per-compound basis using MassHunter's highly customizable reporting based on Microsoft Excel® spreadsheet software and XML results files.



Fully customizable reports enable collaborative, better-informed decision making

Presenting critical information from your MS experiments helps your organization make important scientific or business decisions. MassHunter stores all results in XML files and uses Microsoft Excel and a custom macro add-in for reporting. A wide range of application-specific report templates or customized reports is available in this familiar Excel environment, including custom calculations to meet your needs.

Archive MassHunter data, results and methods in Agilent OL ECM

For archiving MassHunter data files, including results and methods, a seamless integration with Agilent OpenLAB Enterprise Content Manager (ECM) enables easy indexing and searching of all sample information with automatic scheduling of data transfer to an ECM server.

Powerful tools help you extract the information you're looking for.

With MassHunter Workstation software, you can instantly focus on the important questions when reviewing chromatographic and mass spectral results: What is in my sample? How much is there? What is different between these two samples? How do these sample sets compare?

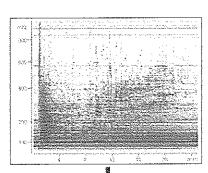
MassHunter software fully taps into the information potential of accurate-mass MS and MS/MS data. Proprietary algorithms enable comprehensive data mining to bring the highest level of certainty to confirmation and identification of unknowns. If it's there, MassHunter will help you find, identify and quantitate it.

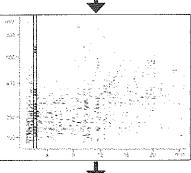
Molecular Feature Extractor streamlines ID and profiling studies

The advanced Molecular Feature Extraction (MFE) algorithm built into MassHunter software saves hours of analysis time by automatically locating all sample components down to the lowest level abundance and extracting all relevant spectral and chromatographic information. The software can also execute additional processing steps, such as molecular formula generation, AMRT database or MS/MS library search, deconvolution or charge state determination.

A tremendously powerful and useful capability, MFE has three general uses:

- For qualitative analysis, MFE finds all detectable compounds—known and unknown—in a single sample.
- In metabolite ID and similar applications, MFE finds all compounds in two samples and compares them in order to find compounds of interest that differ significantly between the samples.
- Used in mass profiling studies—for example, in biomarker discovery— MFE finds compounds in each of many samples. Results can be imported into Mass Profiler or GeneSpring MS software for statistical analysis to find significant differences between sample sets.



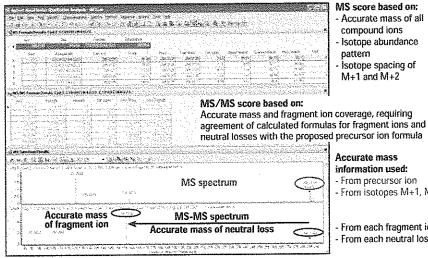


List of compounds or molecular features

RT	m/z	Abund
2.11	195.1745	21000
2.11	257.2566	335500
2.34	224.2134	11784
<u> </u>		<u> </u>

Molecular Feature Extractor quickly and automatically turns highly complex LC/MS data files into a complete, accurate list of compounds or molecular features with retention time m/z and abundance.

^{*}MS/MS libraries coming soon.



MS score based on: - Accurate mass of all

- compound ions Isotope abundance pattern
- Isotope spacing of M+1 and M+2

Molecular Formula Generator (MFG) software uses multiple dimensions of information to generate and score lists of possible molecular formulas. The software reduces the number of plausible formulas by using the accurate mass information contained in the MS/MS spectra.

Accurate mass information used:

- From precursor ion
- From isotopes M+1, M+2
- From each fragment ion
- From each neutral loss

Integrated, application-driven database and library searching

To enhance your productivity—and to make compound identification easier—MassHunter Workstation software lets you perform automated accurate-mass searches of compounds of interest against METLIN, Spectrum Mill and other public and private databases. Compounds can be identified conducting an AMRT database search, performing an MS/MS library search* or doing a Molecular Formula Generation using accurate mass MS and MS/MS information, in parallel or in sequence.

(Agilent is also developing content databases and MS/MS libraries for food, forensics and environmental applications; coming soon.)

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Agilent's METLIN Personal Database. METLIN is the most complete metabolite database in the world, with more than 22,000 primary and secondary endogenous metabolites, including lipids and di- and tripeptides as well as common exogenous metabolites. With this personal database, your searches remain completely confidential; you can also customize by adding proprietary compounds and/or retention times.

^{*}MS/MS libraries coming soon.

Agilent Mass Profiling Workflow: Discover statistical differences faster and more reliably.

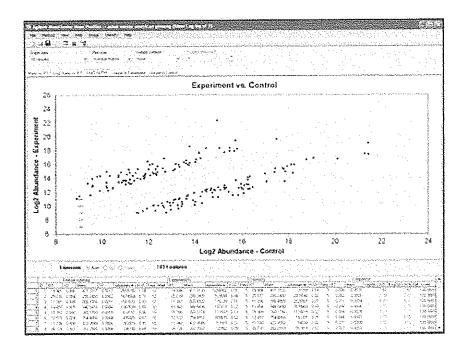
MassHunter Qualitative Analysis, Mass Profiler and GeneSpring MS software are part of Agilent's integrated Mass Profiling workflow—a seamless MS hardware and software solution that streamlines studies where it is necessary to find differences between sample sets.

Originally developed for proteomics and metabolomics studies, the mass profiling workflow also supports additional differential analysis applications such as pharmaceutical impurity testing, forensics, and environmental and pesticide analysis. The unique MFE algorithm lets you confidently locate all the components of interest in an individual sample, even in very complex mixtures.

Every step optimized for comprehensive results and maximum productivity

For challenging expression profiling and biomarker discovery applications, the MassHunter Qualitative Analysis software first simplifies a complex data set of accurate mass MS results. A variety of statistical methods and visualization tools employed by Mass Profiler or GeneSpring MS software allows the identification of meaningful differences between sample groups, e.g., healthy versus diseased population, and the calculation of the abundance ratios of differentially expressed features. Both Mass Profiler and GeneSpring MS allow flexible selection of the comparison criteria and inspection of any selected feature.

The list of differently expressed compounds can then be exported for search in AMRT databases such as METLIN, LC/MS/MS libraries* or the Agilent Fiehn GC/EI-MS library. Identification results can also be exported into pathway analysis software packages.



Mass Profiler software includes easyto-use statistical and visualization tools that allow the identification of statistically meaningful differences between two sample groups.

^{*}MS/MS libraries coming soon.

LC/MS or GC/MS Analysis

LC/MS GC/MS Find molecular features

MFE (LC/MS) AMDIS (GC/MS) Compare sample sets

Mass Profiler GeneSpring MS Identification

Spectrum Mill Mol. Formula Gen. AMRT DB Search Library Search Validation

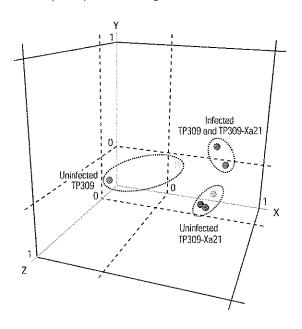
QQQ MRM GeneSpring MS

Agilent's powerful Mass Profiling workflow involves a number of steps supported by Agilent MS hardware and software tools, including:

- 1. LC/MS or GC/MS data acquisition.
- Automatic extraction of compound information via Molecular Feature Extraction or AMDIS, resulting in compound lists with mass, RT and intensity for each compound; compound information is aligned in RT and intensity between each individual sample, based on added internal standards or all contained compounds.
- Statistical analysis of compound lists to find significant differences between the sample sets, using either MassHunter Mass
 Profiler for simple differential analysis between two sample sets or GeneSpring MS for sophisticated statistical analysis between
 two or more sample sets.
- 4. Identification of compounds that show significant differences in abundance.
- 5. Where required, validation of potential biomarkers via higher throughput-targeted MRM quantitation (triple quad), or SIM (GC/MS) and statistical analysis in GeneSpring MS.

Agilent GeneSpring MS software helps you elucidate biological relevance

Designed to integrate data and results from multiple applications, as well as other statistical analysis packages, GeneSpring MS lets you easily import, normalize, compare and display GC/MS, LC/MS, and CE/MS data—including MS/MS data—from large sample sets and complex experimental designs.

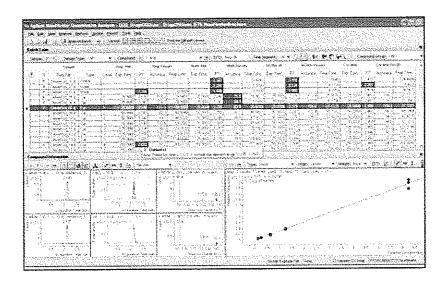


GeneSpring MS is a unified, easy-to-use platform for mass spectral data normalization and comparison that helps you answer the complex biological questions targeted by metabolomics and proteomics studies.

MassHunter Quantitative Analysis Software

Fast, powerful quantitative analysis

Easy to learn and use, MassHunter's Quantitative Analysis software offers unprecedented productivity for large, multi-compound batches. A parameterless integrator with built-in peak validation capability lets you focus on problem peaks only. The software also provides tools for work in 21CFRPart11 compliant environments, including user login, session lock, configurable user roles, electronic signatures and a comprehensive audit trail.

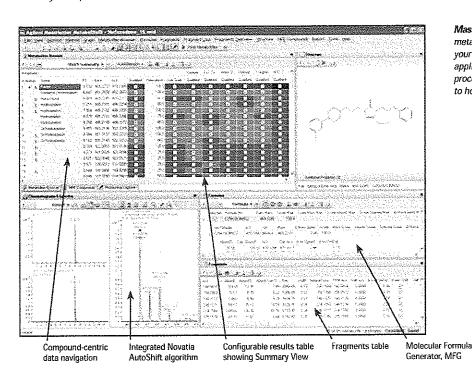


MassHunter Quantitative Analysis Software ensures that you spend less time analyzing your data. It includes helpful features such as batch-at-a-glance data review, a curve-fit assistant, dynamically linked results, outlier flagging and customizable views. All this, with the flexibility of compound- or samplecentric navigation.

MassHunter Metabolite ID Software

Comprehensive, confident metabolite identification

With the widest selection of algorithms available in the industry, MassHunter Metabolite ID lets you find and confirm expected metabolites via accurate mass, isotope pattern, MS/MS spectrum, UV peak, radioactivity detector peak and mass defect. You can also identify unexpected metabolites via accurate mass or calculated molecular formula based on MS or MS/MS data.

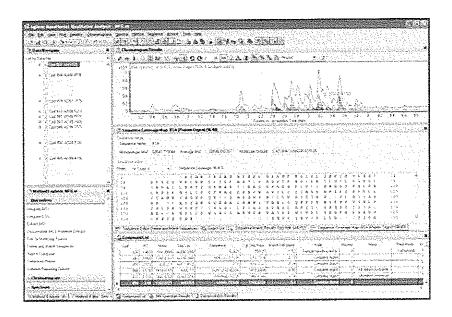


MassHunter Metabolite ID software simplifies metabolite identification without taking away your choice or control. The versatile, powerful application package can reduce your data processing, review and reporting from days to hours.

MassHunter BioConfirm Software

Positive confirmation of synthetic peptides and intact proteins

MassHunter BioConfirm software helps you confirm identities of synthetic peptides and identify variants of intact proteins such as antibodies. The software uses sophisticated algorithmic tools for automated, unattended or interactive confirmation and characterization of recombinant proteins or synthetic peptides, providing an accurate determination of the mass and abundance of each peptide or protein variant.



Interactive Sequence Editor/Matcher in the BioConfirm software helps locate the site of the modification, when analysis of recombinant proteins indicates that the wrong protein was produced. The unique protein Molecule Feature Extractor enables complex mixture analysis via related ion deconvolution.

Spectrum Mill for MassHunter Workstation

Rapid protein identification and quantitation

Spectrum Mill for MassHunter Workstation quickly identifies proteins and peptides via fast database searches and provides automatic and manual match validation. It also offers *de novo* sequencing of peptides not found in any database. Proteins of interest can be quantified by comparing relative abundances of all component peptides observed for a given protein, using either isotope-labeling or label-free strategies with superior visualization tools. Peptide Selector Tool predicts optimal peptides and MS/MS product ions for targeted quantitative proteomics.

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Spectrum Mill for MassHunter Workstation accurately determines not only protein identities but also relative abundances of a given protein in multiple samples. Color coding makes relative abundances apparent at a glance.

Make all your MS analyses faster, easier and more productive

From instrument tuning to final report, Agilent MassHunter Workstation software's advanced control and data analysis capabilities are the perfect complement to the power and performance of your Agilent mass spectrometry systems.

For more information

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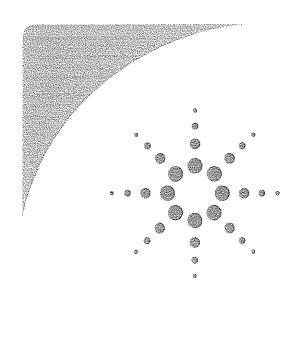
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Infinitely more confident



Agilent 1260 Infinity LC

Infinitely more confident.

The new 1260 Infinity LC sets higher standards in performance and value to give you more confidence in your results. The 600 bar power range combines with 80 Hz UV detector speeds and up to 10 times higher sensitivity. That's true RRLC performance! At the same time you can run your existing HPLC methods—completely unchanged. In short, the best solution for any HPLC or RRLC application.

And within the price range of a typical HPLC!

Reising the NPLC standard

The 1260 Infinity LC raises the bar in HPLC! With a 600 bar power range up to 5 mL/min for isocratic, quaternary and binary systems — and 200 bar up to 10 mL/min for isocratic and quaternary systems — plus 80 Hz detector speeds and 10×10^{-5} x higher sensitivity, you will reach new levels of versatility, higher resolution and faster separations.

190% MPLC compatibility

On one system you can run your established and validated HPLC methods – unchanged – as well as push RRLC to new levels of performance.

HPLC price - RRLC performance

The 1260 Infinity LC is priced similar to earlier 1200 Series HPLC Systems and significantly lower than 1200 Series RRLC systems — so you get much more value for your investment.

infinitely more choice

The modular design concept of the 1260 Infinity LC and the wide range of solvent delivery, injection and detection options, allow you to configure a system that matches exactly your needs for chromatographic performance and flexibility. Whatever your application needs you can be confident of achieving higher quality data and faster results. Mix and match modules to configure your system for:

- · Analytical LC with binary, quaternary or isocratic elution
- · Low-flow LC with capillary or nano-scale flow rates
- · Purification at micro, analytical or prep scale
- Workflow and application-based LC and LC/MS solutions for automated method development, multi-methods, walk-up, high capacity or high throughput





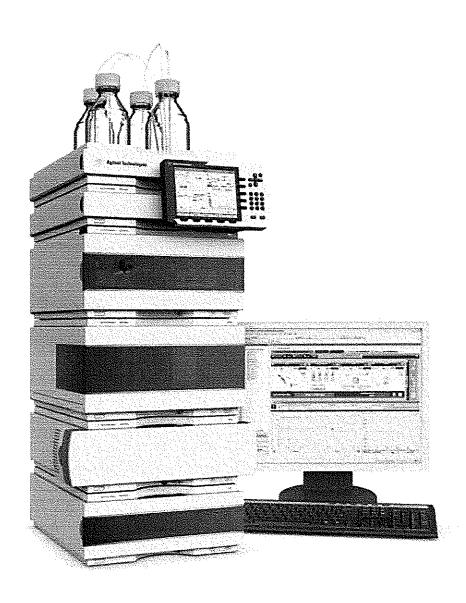




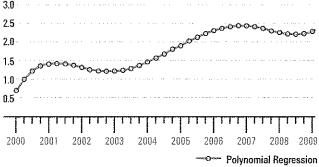
Best solution for any application—and any budget



For utmost flexibility Agilent has created a continuum of products — from compact instruments for routine LC to ultrahigh performance LC/MS systems. Choose the best configuration to optimize every part of your laboratory operations and rest assured that each system can be enhanced as required to meet future challenges.



Agilent Quality Index



Our continuous commitment to reliability and robustness is reflected in the Agilent Quality Index that has more than tripled over the last 10 years.

Higher sensitivity means higher productivity

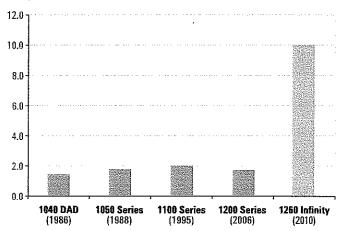
Boost your lab - tenfold!

Using the same innovative technology that makes the 1290 Infinity LC the most powerful system available, the 1260 Infinity Diode Array Detector now brings up to 10 times higher sensitivity with 80 Hz detection speed to HPLC. Combined with the detector's superior baseline performance means you can cope with the narrowest peaks and lowest detection limits for more confidence in your results and higher productivity in your lab.

Boosting HPLC sensitivity...

Fitted with a 60 mm path length Agilent Max-Light cartridge cell, the 1260 Infinity Diode Array Detector achieves a peak-to-peak noise level of 0.6 μ AU/cm (ASTM). This is the most significant improvement in detection sensitivity ever brought to HPLC and is proof of Agilent's relentless innovation and groundbreaking contributions to LC technology.

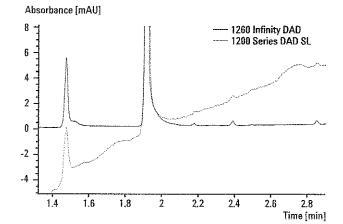
n-fold sensitivity increase over previous models



Compared to the 1040 DAD — the world's first diode array detector — the new 1260 Infinity Diode Array Detector represents the most significant increase in detection sensitivity for HPLC users.

...and RPLC baseline robustness

Highest sensitivity is not the only important performance characteristic. The 1260 Infinity DAD is also significantly less susceptible to refractive index effects for highest baseline robustness — the examples on page 5 show how this helps you in your day-to-day work.



Highest baseline robustness through significantly reduced refractive index effects.

Your pathway to higher productivity

The sensitivity boost offered by the new 1260 Infinity LC not only gives you more confidence in your results – it also allows you to achieve higher levels of productivity.

Higher confidence

When analyzing trace-level components, the higher detection sensitivity of the 1260 Infinity DAD will give you clearer results. And you will be able to make clearer statements about the purity of your samples.

Less reintegration

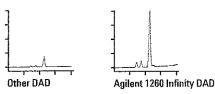
Automatic integration of low-level peaks on drifting baselines is often not possible and manual reintegration is required — an extremely time-consuming task. With the higher sensitivity and baseline robustness of the 1260 Infinity DAD you can trust your automatic integration more than ever and save precious time.

Less sample preparation

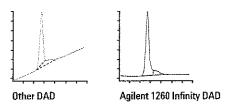
The higher sensitivity of the 1260 Infinity DAD means you have a higher chance of being able to analyze your samples directly, eliminating sophisticated and time-consuming sample preparation such as pre-analysis concentration.

More prepared for potential change

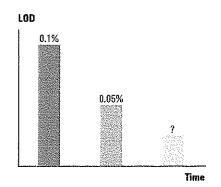
Regulatory bodies have lowered the required detection limits continuously over the last years. With the 1260 Infinity DAD you can rest assured that you have made a safe investment that will be able to meet increasing demands for many years to come.



The sampler looks clean with other diode array detectors but the Agilent 1260 Infinity DAD shows the true picture.



With other diode array detectors it is difficult to decide where exactly to position the integration marks. On a flat baseline as with the 1260 Infinity DAD this is much easier, giving more consistent results.



Wider power range means higher productivity and more confidence

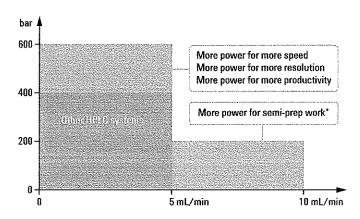
More power for HPLC.

All 1260 Infinity LC modules — such as pumps, autosamplers and valves for analytical flow ranges — now handle pressures up to 600 bar. This offers you new levels of productivity, data quality and robustness to give you highest confidence in your results. Further, you get all this for the price of a typical HPLC instrument!

HPLC and RSLC without compromises

Even today, many established methods are still based on large particle columns. In contrast, newly developed methods are more often based on columns using small particles, which offer higher separation efficiencies. This higher separation efficiency can be utilized either by reducing the column length and thereby the analysis time, or by maintaining the column length and separation time but achieving higher chromatographic resolution.

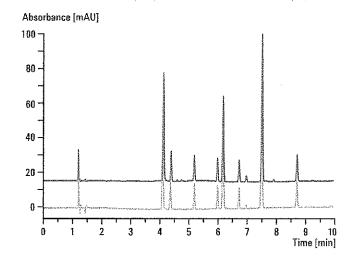
With the 1260 Infinity pumps you make a future-proof investment — without higher expenditure on your LC system. If you want to explore the maximum in terms of resolution per time, take a close look at to the 1290 Infinity LC system with twice the power of the 1260 Infinity LC — or even three times more power than other HPLC systems.



*1260 Infinity Quaternary and Isocratic pumps only

Full backwards compatibility

The 1260 Infinity LC gives you full backwards compatibility. That means you can run your established and validated methods — on the same system.

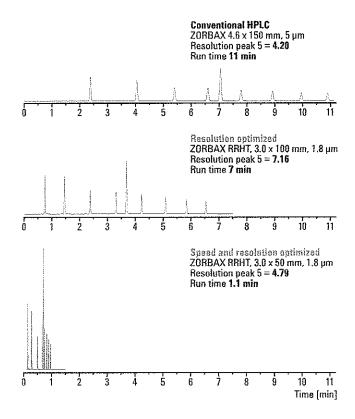


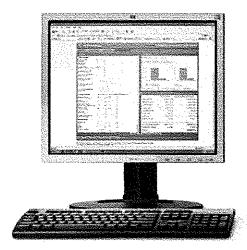
More power for more speed

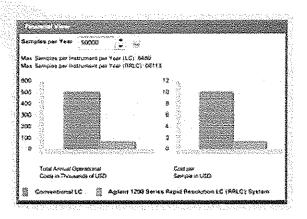
If your separations are of medium complexity with sufficient resolution between the peaks, shorter sub-2-micron columns with the same separation efficiency will reduce analysis times drastically and thereby significantly increase the throughput of your system.

More power for more resolution

Increase the resolution of your separations by deploying columns with smaller particles and achieve better separation of closely eluting compounds. Get higher confidence in your results and reduce the number of uncertain results and repeat analyses.







Calculate for yourself how much you can save by deploying Agilent Rapid Resolution LC technology! The online method translator and cost savings calculator helps you to transfer your HPLC methods and calculate your cost savings. Visit www.agilent.com/chem/RRLC MT

Agilent 1260 Infinity Quaternary and Isocratic LC

Higher productivity. Wore confidence.

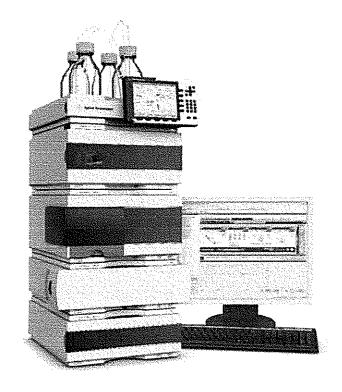
With the 1260 Infinity Isocratic and Quaternary LCs you can achieve new levels of performance in standard HPLC applications. This performance is driven by higher data quality and faster results that translates into higher productivity in you lab and more confidence in your results.

ideal for standard applications

Standard-bore 4.6 mm and 3.0 mm ID columns — with conventional particles, sub-2-µm particles or superficially porous particle — are ideally suited for the 1260 Infinity Isocratic and Quaternary LCs. Run your existing applications with ease and rest assured that have more than enough headroom to optimize your methods or apply advanced methods and column technologies. There is even enough flow rate available to run semi-preparative applications — simply add a 1260 Infinity Fraction Collector.

Upgradeable for future-proof investment

The 1260 Infinity Isocratic und Quaternary Pumps are based on the same fundamental design and are identical except for the quaternary pump's proportioning valve and new integrated degassing unit. This means you can start with an isocratic system and later upgrade the pump to quaternary operation. Adding further 1260 Infinity or even 1290 Infinity modules transforms your system to a high-end LC capable of handling any application.



1200 Infinity system	Standard HPLC	Poroshell columns	Sub-2-µm columns	4.6 mm columns	3.0 mm columns	2,1 mm columns	Fast LC	High resolution	MS frontend	Semi-prep
									Tan Sweet 12	
1260 Infinity Quaternary LC										
1260 Infinity Isocratic LC										

1200 Infinity Quaternary LC

The 1260 Infinity Quaternary LC is the ideal tool to meet your liquid chromatography needs, regardless of whether you run a pharmaceutical or chemical quality assurance lab, environmental or food analysis lab, or a university or governmental lab.

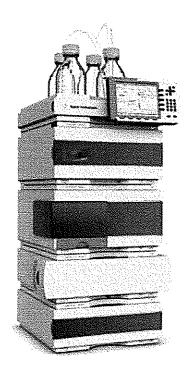
Tailor your system to your needs — from manual injection with variable wavelength detection for routine analysis up to a high-end system with multiple columns for solvent selection and highest sensitivity diode array detection suitable for method development tasks — all based on 1200 Infinity Series modules from one vendor — Agilent.

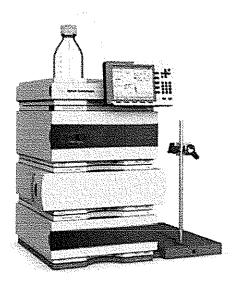
Further, all configurations are supported by all Agilent chromatography data systems and most third-party software packages.

Regardless of how you setup your 1260 Infinity Quarternary system, you will always have an advantage over other "standard" HPLC systems. Especially if you opt for the new 1260 Infinity Diode Array Detector.

1260 laminty leogratic LC

The 1260 Infinity Isocratic LC is ideally suited for simple separation challenges such as many QA/QC methods, GPC or SEC analysis that do not require gradient separation. With the increased flow range up to 10 mL/min, the 1260 Infinity Isocratic LC can also be used for semi-preparative applications.





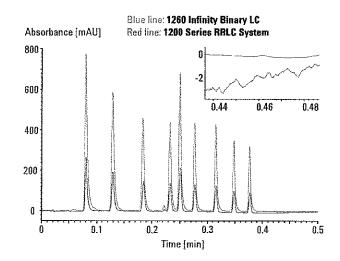
Agilent 1260 Infinity Binary LC

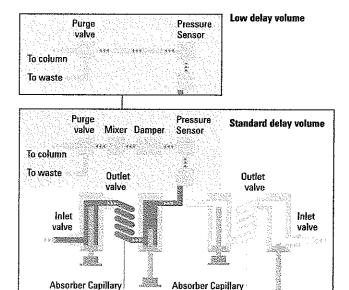
Higher performance. Lower cost.

The 1260 Infinity Binary LC delivers not only RRLC results but also gives you significantly higher UV-sensitivity. Its scalable delay volume makes it ideally suited for standard bore columns and as a front-end for MS detection. Further, it comes at the price of a typical binary system for conventional HPLC!

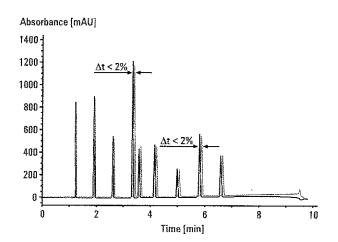
Higher detection performance

Based on the successful 1200 Series Rapid Resolution LC system, the new 1260 Infinity Binary LC delivers the same RRLC power but with increased detection performance thanks to the new 1260 Infinity Diode Array Detector. With full backwards compatibility for your established HPLC and RRLC methods, all these major performance improvements are now offered at an even more attractive price.





The 1260 Infinity Binary Pump has a configurable delay volume down to 120 μ L. Combined with a flow range up to 5 mL/min at 600 bar, this provides universal applicability from narrow bore 2.1 mm ID to standard bore 4.6 mm ID columns, matching the needs for both LC and LC/MS.



The standard delay volume configuration of the 1260 Infinity Binary Pump allows you to run not only RRLC but also conventional HPLC methods without compromising performance or changing chromatographic patterns.

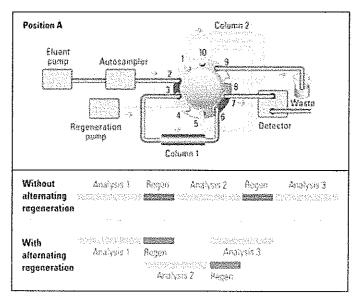
Higher throughouts

A special high throughput configuration of the 1260 Infinity Binary LC enables maximized productivity for laboratories with high sample loads. While one column is used for the analysis the second column is washed and regenerated by a regeneration pump. With this high throughput configuration, you can reduce cycle times by up to 50 percent and achieve throughputs of 2000 samples/day.

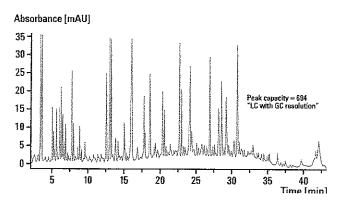
Use an 1290 Infinity LC Injector HTS or HTS for highest sample capacity and benefit from the full mix-and-match capabilities of the 1200 Infinity Series!

Higher peak capacity

Achieve "GC-like resolution" with peak capacities of more than 700 using long ZORBAX RRHT columns on your 1260 Infinity Binary LC system. The example shows the analysis of a tryptic digest of BSA using a ZORBAX RRHT SB-C18 column (2.1 x 150 mm, 1.8 μm).



Throughputs of 2000 samples/day can be achieved through alternating column regeneration (ACR).

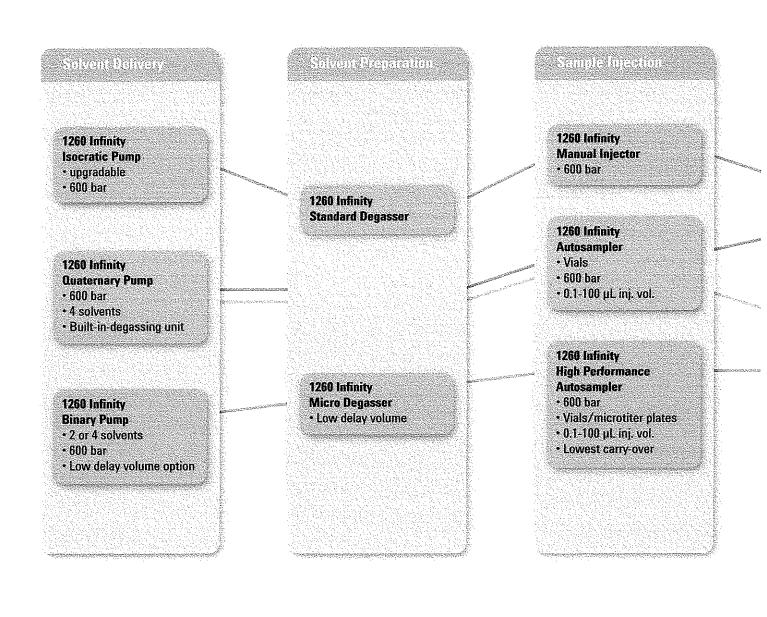


Peak capacities of more than 700 can be achieved using a ZORBAX RRHT SB-C18 column (2.1 x 150 mm, 1.8 µm) to analyze a tryptic digest of BSA.

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1200 Infinity Standard	Poroshell Sub-2-um	4.6 mm 3.0 mm	2.1 mm Fast LC	High MS Semi-prep
system HPLC	columns columns	columns columns	columns	resolution frontend
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1260 Infinity	TO SECURE OF A SECURITY OF A S			
1260 Infinity Binary LC				

Infinitely more choice.

The modular design of the 1200 Infinity Series with compatible technology across the entire portfolio allows you to configure a system that meets your application requirements while remaining within the confines of your budget. Literally hundreds of combinations are possible. Here is just a selection of typical configurations. Consult the 1200 Infinity Series Selection Guide or ask your Agilent representative for a comprehensive overview.



Entry-level isocratic system for GPC/SEC analysis







Standard quaternary system for routine analysis











High-end quaternary system for method development















Research-grade binary LC/MS system for impurity identification















1260 Infinity

Column Compartment

- Two temperature zones
- Up to 80°C
- Column switching

1290 Infinity

Column Compartment

- Quick-Change valves
- Dispersion optimized
- Up to 100°C
- Clustering

olivatra amir

1260 Infinity VWD

• 80 Hz

1260 Infinity DAD

- 80 Hz data rate
- 1 or 6 cm cell
- 3.0 or 0.6 µAU/cm noise

1290 Infinity DAD

- 160 Hz data rate
- Variable slit
- 1 or 6 cm cell
- 3.0 or 0.6 µAU/cm noise

1260 Infinity Fluorescence Detector

1260 Infinity Refractive Index Detector

1260 Infinity Evaporative Light Scattering Detector

6150 Single Quadrupole MS

6230 Accurate Mass TOF MS

To learn more about the Agilent 1260 Infinity LC, visit

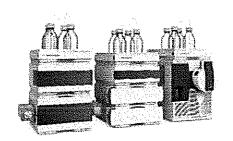
Workflow and application-based LC & LC/MS solutions

Infinitely more possibilities.

The flexibility of the 1200 Infinity Series allows Agilent to offer the broadest of portfolio of liquid chromatography solutions. Choose from high performance systems for analytical LC or configure your system to meet specific application requirements. From nanoflow to high-throughput LC/MS and from amino-acid to GPC analysis, the 1200 Infinity Series gives you infinite possibilities to solve your separation challenges.

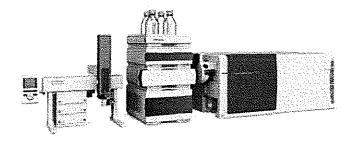
Automated method development and multi-method solutions

A 1260 Infinity Binary or Quaternary LC can be configured to handle multiple methods or develop new methods. With a cluster of two or even three column compartments and selection valves you gain automated access to up to 8 columns and 26 solvents. These highly-productive configurations are supported by a broad choice of Agilent ZORBAX and Poroshell columns as well as many specialized application software packages.



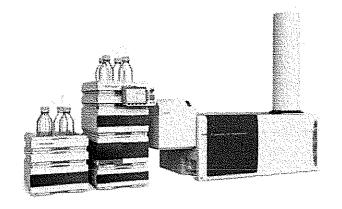
High-capacity, high-throughout LC/IMS

The low delay volume of the 1260 Infinity Binary LC makes it purpose-built for high speed separations. Agilent Quick-Change valves in the column compartment facilitate parallel analysis and column equilibration, doubling your throughput. Add a 1290 Infinity LC Injector HTS to the system for highest sample capacity.



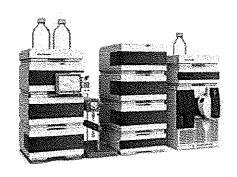
Low-flow LC

The 1260 Infinity capillary and nanoflow 400-bar pumps both include electronic flow control — an Agilent-unique feature that delivers unprecedented flow stability. Options for handling minute amounts of sample allow you to configure optimum front-end solutions for LC/MS or HPLC-Chip/MS.



Purification and preparative LC

Agilent offers preparative LC solutions for purification of nanogram to gram quantities of samples. Based on 1260 Infinity modules, these systems can be tailored to your sample and detection requirements. Fraction collection can be triggered by UV, mass or other detection signal, or by a combination of these.



Bio-compatible LC

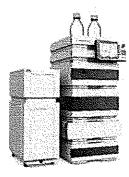
For analysis of biologically-active substances, a range of 1260 Infinity modules are available with bio-compatible flow paths. All internal parts in contact with eluent are inert, thereby protecting your valuable samples against degradation during analysis.





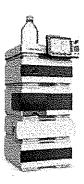
Analytical SFC - super critical fluid chromatography

Ideal for separation and purification of chiral compounds Agilent's solution for supercritical fluid chromatography sets new standards for performance, reliability and ease-of-use. A wide dynamic range allows you to measure enantiomeric excess and quantify peaks that are 0.01 percent of the main peak.



GPC/SEC Analysis

The 1260 Infinity Isocratic Pump provides the constant and stable flow rate that is essential to maintain high resolution. This high flow precision and the excellent temperature stability of the column compartment ensure highest accuracy and precision of molecular weight determinations.



Agilent 6000 Series LC/MS Systems

Infinitely better together.

If you're looking for more sensitive target compound analysis and better identification of unknowns, take a close look at Agilent's comprehensive LC/MS portfolio. With a 40-year track record of relentless innovation and groundbreaking contributions to MS technology, we deliver everything you expect from a mass spectrometry leader. All 1200 Infinity Series LC systems deliver performance perfectly in tune with our 6000 Series mass spectrometers, working infinitely better together.

6100 Series Single Quadrupole

From routine QC to research-level applications, Agilent 6100 Series Quadrupole LC/MS systems offer industry-leading data quality in an easy-to-use, space-saving benchtop package.

5400 Series Triple Quedrupole

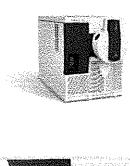
Whether you are quantifying pharmaceutical candidates, measuring trace-level environmental or food contaminants, or confirming biomarkers, the Agilent 6400 Series Triple Quadrupole LC/MS systems offer greater sensitivity, productivity, and value than ever before.

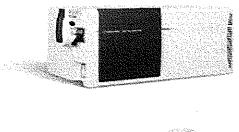
3200 Series Accurate-Mass TOF

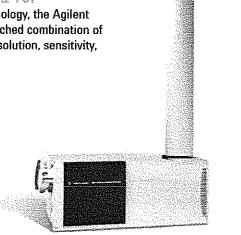
For confirming synthetic compounds, profiling biomarkers, identifying impurities, screening for pesticides or characterizing intact proteins, the Agilent 6200 Series Accurate-Mass Time of-Flight LC/MS delivers unmatched speed and performance in a compact benchtop instrument.

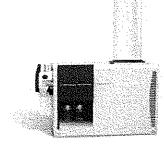
5500 Series UHD Accurate-Mass Q-TOF

Using the power of True Hi-Def TOF technology, the Agilent Accurate-Mass Q-TOFs achieve an unmatched combination of MS and MS/MS mass accuracy, mass resolution, sensitivity, in-spectrum dynamic range and speed.









To learn more about the Agilent 6000 Series, visit

Software and informatics solutions

New levels of usability and uptime.

Agilent offers software and informatics solutions to obtain all the benefits of the 1200 Infinity Series' performance levels. Agilent ChemStation and Agilent EZChrom Elite give you the most comprehensive and fully traceable management of any 1200 Infinity Series LC system. These chromatography data systems focus on different analytical workflows but are based on common instrument drivers and navigation, offer one unified result data format and integrate seamlessly with Agilent OpenLAB Enterprise Content Manager (ECM). They are both fully scalable, giving you instrument control, result generation, data management and advanced reporting for all Agilent 1200 Infinity Series LC systems.

Agilant OpenLAB reaches beyond the lab

Agilent OpenLAB enables you to manage, share, and organize your data securely across laboratories and departments. It lets you derive business intelligence with a relational reporting database and offers workflow automation for fast execution of routine workflows.

Agilent ChemStation maximizes the value of your 1200 Infinity Series LC in research and development

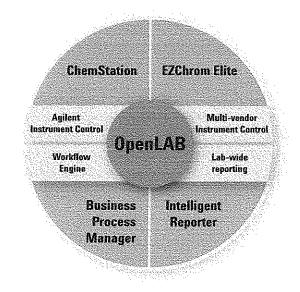
Agilent ChemStation is designed for the advanced needs of research and development scientists in chemical and pharmaceutical laboratories. It is easy to customize to specific needs and offers a broad range of add-on modules to support specific applications. ChemStation is the most comprehensive control software for all Agilent chromatography systems.

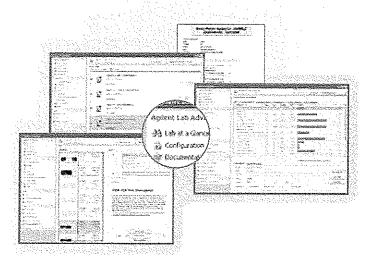
Agilent EZChrom Elite maximizes the value of your 1200 Infinity Series LC in quality control

Agilent EZChrom Elite is fully scalable from an entry-level configuration with EZChrom Compact to a multi-user, multi-site distributed systems with hundreds of instruments and users. EZChrom offers full flexibility with control for chromatographic equipment from both Agilent as well as other vendors. This combination makes it ideal for routine operation in QA/QC laboratories.

Agilent Lab Advisor

Lab Advisor helps you to keep your lab's instruments in top condition and reduces unnecessary lab downtime. It provides you with advanced diagnostic and maintenance capabilities for your 1200 Infinity Series LC — independent of the software you use to control your instrument. In short, Lab Advisor helps you achieve high quality chromatographic results in the most efficient way.





To learn more about Agilent chromatography data systems, visit

LC columns, supplies and services

Accurate results quickly and confidently.

Maximize system performance and reliability for all your separation needs by combining your 1200 Infinity Series LC system with Agilent ZORBAX and Poroshell LC columns and LC supplies. Designed with the same attention to detail, quality and superior performance you have come to expect from Agilent instruments and backed by over 40 years of chromatography experience, you can count on Agilent's columns and supplies to deliver the high quality results you need and expect, time after time.

Unparalleled quality and flexible choices within the ZORBAX LC column family

- Wide selection of chemistries Eclipse Plus, Eclipse XDB, StableBond, Extend, Bonus-RP, HILIC and more
- Superior flexibility and product scalability with a wide range of particle sizes (1.8, 3.5, 5, 7 μ m and superficially porous 2.7 μ m) and column dimensions
- Individual column performance reports to document column-to-column and lot-to-lot reproducibility
- Superior particle strength for even the most demanding high pressure applications

Preparative scale separation columns

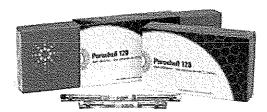
Agilent's range of columns for preparative HPLC — with internal diameters from 4.6 to 50 mm, covers the complete flow rate range of the Agilent 1260 Infinity Preparative-scale Purification System. The Agilent Prep C18 and normal phase columns enable highest sample loading and exhibit proven stability up to pH 10 as well as extended column lifetime. The highly acclaimed ZORBAX columns — ZORBAX Prep HT for reversed phase separation and normal phase chromatography — facilitate high sample throughput and are ideal for samples that are complex or difficult to separate.

Column technology to help you get the most from your 1260 Intinity LC

Agilent Poroshell 120 Columns have a solid 1.7 µm core and a 0.5 µm porous outer layer, so you get the resolving power of a 2.7 µm particle, at the speed of a sub-2-micron particle, with significantly lower backpressure. And, they are manufactured with a proprietary single-step porous shell process that has been designed by Agilent to improve reproducibility.

Poroshell 120 columns offer:

- Up to two times the number of theoretical plats compared to conventional 3.5 µm columns
- Improved resolving power, even as you take advantage of speed gains
- Improved ability to handle dirty samples, due to their standard 2 µm frit



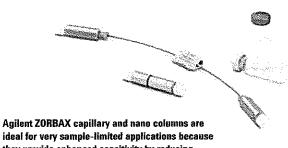
Learn more at www.agilent.com/chem/poroshell120



High purity, high recovery and high throughput can be easily achieved with Agilent ZORBAX PrepHT columns, which are available in a variety of bonded phases — Eclipse XDB, StableBond, Bonus-RP, and Extend-C18 — for optimized resolution and loadability under any conditions.

Capillary and nano columns for micro-fraction collection and MALDI spotting

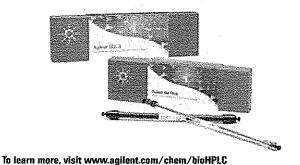
Extremes in sensitivity with limited samples volumes require small column IDs. For your proteomic applications either for one-dimensional or for two-dimensional separation workflows including offline micro-fraction collection, Agilent has a wide variety of column choices. Column IDs start as low as 0.075 µm and 0.1 µm, which are perfectly suited for MALDI spotting applications. Micro-fraction collection is usually performed at capillary flow rates with column IDs of 0.3, 0.5, or 0.8 µm. Agilent offers a broad choice of ZORBAX reversed phase columns for different applications with different bonding chemistries, pore and particle sizes.



ideal for very sample-limited applications because they provide enhanced sensitivity by reducing on-column sample dilution.

BioHPLC Columns

Agilent provides a full range of reversed phase, size exclusion and ion exchange BioHPLC columns to enable highly reproducible and high resolution analytical separations of monoclonal antibodies, proteins, peptides and other biomolecules.



Agriem Advantage Service and Support

Agilent provides customer-focused products and services for all stages in an instrument's lifecycle, from installation and upgrade to operation and repair. Whether you need support for a single instrument or a multi-lab, multi-vendor operation, Agilent offers an Advantage service solution to help you solve problems quickly, increase your uptime and optimize your lab's resources.

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Count on Agilent to provide the proof of calibration or system qualification you need to support your ISO 17025 or GLP/GMP quality initiatives. In fact, Agilent has been ranked number one in compliance by independent survey since 1995.

Andens Sohware Serie eane Supro-

Agilent's Professional Services organization facilitates process and productivity enhancements using software and informatics products and technology. Partner with Agilent consultants and let us help you develop comprehensive software and support strategies that ensure continued system uptime and maximum productivity.

To learn more, visit

To learn more, visit

Agilent Value Promise – 10 years of guaranteed value

In addition to continually evolving products, we offer something else unique to the industry — our 10-year value guarantee. The Agilent Value Promise guarantees you at least 10 years of instrument use from your date of purchase, or we will credit you with the residual value of that system toward an upgraded model. Not only does Agilent ensure a safe purchase now, we help ensure your investment is as valuable to you in the long run.

Agilent Service Guarantee

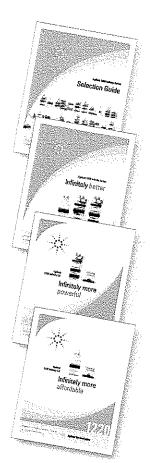
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