Quantum Analytics

PRODUCT CATALOG

Discover the Quantum Advantage

Agilent 1290 Infinity II LC Systems

The future of UHPLC

Agilent Technologies

Premier Solution Partner

The Agilent 1290 Infinity II LC System is part of the InfinityLab LC series. High separation and detection performance deliver analysis data of the highest quality. Highest sample capacity and fastest injection cycles combine with new levels of usability—for highest throughput for any application. Seamless integration in current infrastructure and smooth method transfer from legacy equipment—for non-disruptive transition to highest productivity and lowest cost of ownership.

Features

- More chromatographic resolution
- Higher peak capacity for challenging separations – switch easily between single dimension UHPLC and the ultimate chromatographic power of 2D-LC.
- Lower carryover for uncompromised data quality
- Faster injection cycles with dual-needle injection and smart overlapped injections offer higher sample throughput
- Higher sample capacity per bench space – up to 6144 samples within the footprint of a standard Agilent stack
- Lowest detection limits with an ultra-wide dynamic range
- Significantly better usability - dead-volume-free UHPLC fluidic connections can be easily achieved by the revolutionary A-line quick-connect fittings.
- Flexibility for all applications – due to the wide power, temperature and automatically scalable injection range, gradient options and intelligent system emulation technology
- Seamless transfer of methods between LCs, regardless of the brand

Agilent 1260 Infinity II LC Systems

The performance, reliability and robustness you deserve

Agilent Technologies

Premier Solution Partner

Let the **Agilent 1260 Infinity II LC** take you to the next level of analytical, instrument and laboratory efficiency with the performance, reliability and robustness you deserve, for highest confidence in your daily results. Reliable instrumentation combines with latest column technologies and advanced supplies to guarantee robust separation and detection performance. Easy column handling and superior sample logistics, from sample submission to data analysis, ensure fast turnaround times and highest instrument utilization. Seamless method transfer and stepwise upgrade paths facilitate risk-free integration in current infrastructure, for non-disruptive transition to highest performance within the confines of your budget.

Features

- Compatible with conventional and ultrahigh performance LC
- Ultralow carryover - less than 10 ppm
- Cycle times to be reduced to mere seconds, virtually eliminating conventional wait times – whether for large volume loadings or flushing procedures
- Efficient sample handling and logistics
- Efficient column handling and temperature control
- Fast and easy connections to save time and trouble
- Lower detection limits and higher data quality for more confidence

Agilent 1220 Infinity II LC Systems

Simple and affordable UHPLC

Agilent Technologies

Premier Solution Partner

Agilent 1220 Infinity II LC is an affordable, high quality, integrated LC system based on proven technology. As part of the Agilent InfinityLab LC Series, the 1220 Infinity II LC gives you quality and performance. Choose from four integrated, “all-in-one” configurations and various upgrade paths allow you to increase instrument efficiency. The walk-up upgrade and software convert the 1220 Infinity II LC into the perfect LC workhorse for a multi-user environment.

Features

- Exceptional accuracy and superior precision for all routine applications
- Flexibility - hardware choices and all-in-one configurations include an isocratic or gradient pump, manual injector or vial autosampler, column oven and variable wavelength detector
- Upgrade system with additional hardware modules
- Fully compliant with all requirements for regulatory LC applications
- Fast, trouble-free startup - every system is tested in its final configuration
- Mobile upgrade allows installation in a mobile lab
- Higher resolution and faster run times
- Lower detection limits using a variable wavelength detector up to 80 Hz
- Maintain stable temperatures with the optional column oven

Agilent Intuvo 9000 GC

Transform the way you perform gas chromatography

Agilent Technologies

Premier Solution Partner

The new **Agilent Intuvo 9000 GC** system transforms the way users perform GC, opening new paths to higher productivity and better business outcomes. Building on Agilent's legacy of robustness and performance, Intuvo introduces key enabling technologies that lift existing operational limitations, delivering simplified operation, reduced operating costs, and increased instrument up-time.

Features

- Ferrule-free, click-and-run connections
- Guard Chips protect downstream components from contamination
- Direct heating and unique planar column design delivers exceptional heating performance
- Smart ID Keys attached to critical flow path components provide information such as configuration and column age
- Intelligent troubleshooting routines diagnoses problems in the system and provide a step-by-step solution guide
- The perfect GC for use with 5977B, 7000D, and 7010B mass spectrometer systems
- OpenLAB CDS and MassHunter software
- Compatible with the complete range of autoinjectors, including 7693A and 7650A for liquid injections, and 7697A for dedicated headspace analyses

Agilent 7890B GC

Proven reliability and industry leading performance

Agilent Technologies

Premier Solution Partner

Agilent 7890B GC with Integrated Intelligence offers advanced features designed to help you get more done in less time. Its high-quality design and reliability mean the system will maintain a high-level of performance for years to come. Dramatically reduce the amount of helium used or eliminate it from your laboratory. Enjoy software and other features designed to deliver simplicity and enhanced analytical capability.

Features

- Carrier gas options to reduce the amount of helium used
- Capillary Flow Technology provides better chromatographic separations and decrease sample preparation
- Retention Time Locking maintains retention times across injections, over time, and between instruments
- Low Thermal Mass modules reduce inject-to-inject time with rapid column heating and cooling
- Large Valve Oven allows for the combination of multiple methods and simplified maintenance
- Multimode inlet serves as a programmable temperature vaporizing injector with multiple capabilities
- Inert FlowPath helps you achieve better sensitivity, from injection to detection

Agilent 7820A GC

Simplified operation for routine analysis

Agilent Technologies

Premier Solution Partner

Agilent 7820A GC provides simplified operation with the proven reliability. This affordable, high-quality GC system is ideal for small to medium-sized labs that perform routine analyses using standard GC methods. The 7820A was designed to maximize uptime, minimize maintenance and complexity, providing a quick return on your investment.

Features

- Full electronic pneumatics control is available for all inlets and detectors, ensuring excellent reproducibility, reliable accuracy and precision
- Easy to learn and use software
- Simplified GC front panel keys and display provide sequence information, instrument conditions, and run status, and minimize operating errors
- Optimized performance for everyday productivity and for all routine applications,
- Choice of standard high precision inlets
- Choice of high-sensitivity detectors for every sample type
- Complementary software keyboard and display allows the user to control the system when it connects with an integrator or 3rd-party software
- Ideal for food, environmental, forensic, materials, energy and chemical applications

Agilent 5977B Single Quadrupole GC/MSD

Work smarter with integrated GC, MS, and software technologies

Agilent Technologies

Premier Solution Partner

Agilent 5977B High Efficiency Source (HES) Gas Chromatograph/Mass Selective Detector (GC/MSD) builds on a tradition of providing the most trusted single-quadrupole GC/MS system. The ultra-efficient EI source maximizes the number of ions that are created and transferred out of the source body and into the quadrupole analyzer. This novel design revolutionizes single quadrupole mass spectrometry performance.

Features

- Revolutionary High Efficiency Source (HES) offers the industry's lowest Instrument Detection Limit (IDL) and best S/N
- Up to 10x increase in MS signal brings the future into today's single quadrupole laboratory
- Leverage increased MS sensitivity to reduce sample size and lower operating costs for transportation, storage, preparation, and waste disposal
- Industry-leading robustness and reliability ensure years of successful lab productivity
- The power and flexibility of both MassHunter Quantitative and Qualitative Analysis and Classic MSD ChemStation
- Enhanced communication between the GC and MSD for more efficient and safer operation
- Eco-friendly features save time and money

Agilent 7000D Triple Quadrupole GC/MS

Expand your lab with a proven platform

Agilent Technologies

Premier Solution Partner

Agilent 7000D Triple Quadrupole GC/MS is easier to use and more efficient than ever, due to its new Dynamic MRM (dMRM) mode of acquisition. If your lab includes Agilent 5975 or 5977 GC/MSD systems, you'll be able to load your GC/MSD SIM and scan methods on the 7000D to balance your workload across all available instruments. The 7000D MS works with the 7890B GC to enhance productivity, save resources and alert operators about pending maintenance.

Features

- Create and edit acquisition methods easily with dMRM Acquisition Mode
- Single Quad Method Compatibility lets you load and execute GC/MSD methods, increasing your lab's capacity to handle samples requiring SIM or scan acquisition.
- High sensitivity EI Extractor Ion Source delivers confident trace analysis even in complex matrices with an IDL less than 4fg OFN
- MassHunter acquisition, data handling and reporting
- Reduce common contaminants, neutral noise, and cool down time
- Maximize uptime and planned maintenance with Integrated GC/MS system features and Early Maintenance Feedback
- Automated and vent-free with patented JetClean option
- Advanced features: Inert Flow Path, Capillary Flow Technology, and the Programmable Helium Conservation Module

Agilent 7010B Triple Quadrupole GC/MS

For the level of sensitivity you need

Agilent Technologies

Premier Solution Partner

Agilent 7010B Triple Quadrupole GC/MS is the latest version of the first compact benchtop Triple quad (MS/MS) system to provide attogram detection limits in Electron Ionization (EI) mode. The 7010B is now even easier to use and more efficient than ever, due to its new Dynamic MRM (dMRM) mode of acquisition. If your lab includes Agilent 5975 or 5977 GC/MSD systems, you'll be able to load your GC/MSD SIM and scan methods on the 7010B to balance your workload across all available instruments.

Features

- Single Quad Method Compatibility lets you load and execute GC/MSD methods, increasing your lab's capacity to handle samples requiring SIM or scan acquisition.
- High sensitivity EI Extractor Ion Source delivers confident trace analysis even in complex matrices with an IDL less than 4fg OFN
- MassHunter acquisition, data handling and reporting
- Enhance mass spec performance by reducing common contaminants, neutral noise and cool down time
- Maximize uptime and planned maintenance with Integrated GC/MS system features and Early Maintenance Feedback
- Automated and vent-free with patented JetClean option
- Advanced features include: Inert Flow Path, Capillary Flow Technology, and the Programmable Helium Conservation Module

Agilent 7200B GC/Q-TOF

Delivers full spectrum, high resolution data

Agilent Technologies

Premier Solution Partner

The **Agilent 7200B Quadrupole Time-of-Flight GC/MS** system delivers full-spectrum, high-resolution, accurate-mass data for screening, profiling, and identifying GC-amenable compounds, using electron ionization and PCI/NCI modes. The 7200B Series GC/Q-TOF system expands on the proven separation power of the Agilent 7890B GC and now includes a backflush-ready configuration with every system.

Features

- Reduce false positives with high-resolution, accurate-mass data
- Ensure excellent data quality even for narrow chromatographic peaks in high-throughput workflows with data acquisition rates up to 50 spectra/second
- Identify compounds with library-quality spectra for high match scores
- Assign chemical formulae to unknown compounds and fragments using MassHunter software
- Detect and identify trace-level target compounds in the presence of more abundant matrix compounds with a wide in-spectrum dynamic range
- Separate target compounds from background interferences with high-resolution data
- Perform untargeted screening with the selectivity of fragment data using Agilent's All Ions technique for GC/Q-TOF
- Elucidate chemical structures with MS/MS capabilities to reveal greater detail
- Perform easy and fast ion source swapping for routine maintenance or ionization mode changes while maintaining vacuum with Agilent's removable ion source
- Leverage a broad range of options and capabilities of the world's best GC

Agilent 7696A Sample Prep Workbench

Automates tedious and error-prone steps

Agilent Technologies

Premier Solution Partner

Agilent 7696A Sample Prep WorkBench automates tedious and error-prone steps in sample preparation. It is suitable for most HPLC, GC, LC/MS and GC/MS applications, such as dilutions, internal standard additions, and derivatization. WorkBench with WeighStation provides the ability to weigh precise amounts of material directly into the GC or LC vial, allowing for weight calculations required for specific ASTM and EN methods.

Features

- Cost savings on solvents, glassware and time
- Eliminates manual sample prep variability from analyst to analyst
- Placement in fume hood for safe working environment
- Intuitive Easy SamplePrep software with graphical interface simplified operation
- Performs dilution, aliquoting, reconstitution, small volume liquid/liquid extraction
- Off-line batch sample preparation for both LC and GC methods
- Optional WeighStation provides high precision weighing of dispensed volumes
- Bar code reading capability makes it ideal for regulated environments
- 150 2 mL vial capacity
- Liquid handling towers ensure precise, reproducible, dispensing and transfer
- Eliminate variability in dilution, extraction, standards addition, and other key steps

Agilent 7693A Automatic Liquid Sampler

Reliable, fast, and precise injections

Agilent Technologies

Premier Solution Partner

Agilent 7693A Automatic Liquid Sampler provides reliable, fast, and precise injections for Agilent GC and GC/MS systems. With additional sample preparation capabilities, this autoinjector can enhance the output of the GC or GC/MS laboratory. Whether you have hundreds of samples to analyze, or just a few, the 7693A system gives you sample handling and injection capabilities that are best in class.

Features

- 150 sample vial tray allows longer unattended operation
- Dual simultaneous injection saves time by doubling sample throughput
- Fast injection technology minimizes needle discrimination and enables use of external standards
- Holds 250-µL and 500-µl syringes for use in sample preparation
- Easily build and run GC sample preparation programs with Easy SamplePrep software
- Sample heater and mixer dramatically improves high molecular weight chromatographic results
- Eliminate introduction of manual error due to sample preparation, including dilution, internal standard addition, and derivatizations
- Heat the entire tray or cool it to sub-ambient temperatures to meet your lab's needs
- Modular design allows the flexibility to easily move the sampler from GC to GC or start with a single injector and upgrade as needed
- Priority sample capability - no need to stop the sequence to add next sample
- Barcode reader allows the system to perform specific actions on mismatch, ensuring chain of custody Agilent Barcode Printing Solution

Agilent 7650A Automatic Liquid Sampler

Precise injections for up to 50 samples

Agilent Technologies

Premier Solution Partner

Agilent 7650A Automatic Liquid Sampler provides reliable, fast, and precise injections for up to 50 samples on Agilent GC and GC/MS systems. Prepare to inject the next sample in the sequence before the GC goes ready; decreasing inject to inject time. Add samples, eliminating the need to stop the sequence when important samples arrive in the lab. Offers a large volume injection capability - inject up to 250 µL for flexible liquid injections.

Features

- Holds up to 50 samples
- Up to 3 layers in a sandwich injection mode
- Self-alignment for inlet and sample position
- Illuminated syringe carriage for easy viewing, troubleshooting and method development
- Fast injection technology minimizes needle discrimination and enables use of external standards
- Perform single-stroke and multi-stroke injections
- Holds up to 250-µL and 500-µl syringes for large volume injections
- Priority sample capability - no need to stop the sequence to add next most important sample
- Extend the useful life of the 6890N GC by upgrading aging autoinjectors to 7650A

Agilent 7697A Headspace Sampler

Unparalled throughput in volatiles analysis

Agilent Technologies

Premier Solution Partner

Agilent 7697A Headspace Sampler represents the state-of-the-art in headspace gas chromatography. Automatic leak check helps ensure each vial is leak-free prior to analysis, no loss of precision or sensitivity. Alternate carrier gas options allows you to safely work with hydrogen as a carrier gas to save laboratory cost. Add late arriving important samples to the sequence without stopping and restarting.

Features

- Available in both 12 or 111 vial capacity configurations
- Exchangeable trays during a sequence for increased sample capacity
- Hydrogen carrier and auto Sleep/Wake modes conserve valuable laboratory resources
- Software control through Agilent OpenLAB CDS software and Agilent MassHunter software
- Independent control of vial pressurization and column head pressure provides increased precision by ensuring no back pressure during sample transfer
- Automatic vial leak test checks each vial during pressurization – without time consuming calibration - to ensure that every sample is properly capped
- Sample Bar Code Reader with data transfer capabilities allows you to track samples before they enter the oven
- Barometric pressure compensation provides increased precision regardless of laboratory pressure changes

Markes UNITY-xr Thermal Desorber

Versatility and performance

UNITY-xr™ is a versatile analytical thermal desorption instrument for GC and GC/MS. It offers analysis of trace-level volatile and semi-volatile organic compounds (VOCs and SVOCs) in air and materials. In contrast to other thermal desorption units, UNITY-xr quantitatively re-collects samples for re-analysis or storage, enhancing sample security. UNITY-xr also features an electrically cooled cold trap, dispensing with the expense and inconvenience of liquid cryogen.

Features

- Quantitative sample re-collection of all the split flows enables repeat analysis of critical samples and easy method validation
- An inert, optimised flow path allows quantitative recovery of C2 to C44, including reactive and thermally labile species... from percent to sub-ppt concentrations
- As well analysing 3½" standard TD tubes, the UNITY-xr facilitates analysis of on-line, canister and bag samples through the modular addition of versatile accessories
- Rapid operation of the electrically-cooled focusing trap reduces costs and ensures fast sample throughput
- Method-compliance is aided by tube- and leak-testing, water management, and addition of internal standards
- Samples are easily tracked with barcoded tubes and RFID TubeTAGs
- Compatible with all major makes of GC and GC–MS

MARKES international

Markes TD100-xr Thermal Desorber

High throughput, automated thermal desorption system

TD100-xr™ is a high-throughput, automated thermal desorption system for the rapid and unattended processing of up to 100 sample sorbent tubes in a single sequence. TD100-xr is perfect for high-throughput analytical laboratories needing to process large numbers of tube-based samples automatically. The TD100-xr quantitatively re-collects samples for re-analysis or storage, enhancing sample security. It also features an electrically cooled cold trap, eliminating the expense and inconvenience of liquid cryogen.

Features

- Automated, cryogen-free, unattended operation for up to 100 sample tubes
- Confidence in results through quantitative sample re-collection of split flows
- Inert sample paths and extended temperatures allow quantitative recovery of C2 to C44, including reactive and thermally labile species... from percent to sub-ppt concentrations
- Method compliance aided by leak-testing, water management and addition of internal standard
- Enhanced traceability of samples using barcodes and RFID TubeTAGs
- Short, heated transfer line allows TD100-xr to be installed on all major makes of GC and GC–MS
- High-precision parts result in increased robustness

Markes CIA Advantage Automated Canister Analyzer

Ultimate solution for canister air monitoring

MARKES international

CIA Advantage is an advanced system for automated analysis of VOCs in canister samples. With capacity for up to 27 canisters and cryogen-free operation, it is the ultimate solution for laboratories wanting a robust, high-throughput system for canister air monitoring. It offers flexibility and productivity enhancements for air-monitoring laboratories that cannot be obtained with other systems. CIA Advantage provides both excellent analytical performance and unmatched application versatility.

Features

- Up to 27 channels allows round-the-clock automated operation
- Cryogen-free operation reduces running costs
- Operation is fully compliant with US EPA Methods TO-14 and TO-15
- High- and low-concentration samples can be run in the same sequence
- Splitless desorption for optimum sensitivity
- Compatible with both canister/bag analysis and method-compliant analysis of sorbent tubes
- Heated internal lines and efficient purging combine to eliminate carryover between samples
- Easily integrates into any laboratory – combines with any make of GC

Frontier EPA/PY-3030D Multi-Shot Pyrolyzer

Rethink pyrolysis

FRONTIER LAB

The **EGA/PY-3030D** is a versatile pyrolyzer that offers temperature programmability from ambient (+10ºC) to 1050ºC with precise temperature control (+/- 0.1ºC) of the ceramic micro furnace. This allows the user to analyze materials using a variety of techniques for greater flexibility. This system is capable of full automation of up to 48 samples with the AS-1020E Auto-Shot Sampler. Elegantly designed for qualitative and quantitative analysis with excellent accuracy and precision—guaranteed!

Features

- Any organic materials can be analyzed using some or all of these techniques:
  - Evolved Gas Analysis (EGA)
  - Thermal Desorption (TD)
  - Heart-Cutting (HC)
  - Pyrolysis (PY)
  - Reactive Pyrolysis (RxPy)
  - Single, Double or Multi-Shot Analysis
- F-Search software and four MS libraries provide essential tools for polymer and additive interpretation when using GC with MS detection.
- Accessories add even more capability
  - UV Irradiator (UV-1047E)
  - Micro Thermal Desorption Sampler (PY-1060)
  - Micro Reaction Sampler (PY-1050)
  - MicroJet Cryo-Trap (MJT-1035E)
- Two Year Warranty.

Frontier PY-3030S Single-Shot Pyrolyzer

High performance and reliability

FRONTIER LAB

The **PY-3030S Single-Shot Pyrolyzer** is simple but effective for any type of isothermal sample introduction to GC or GC/MS from 40-800ºC. The PY-3030S has precise temperature control, uses the same low dead volume, inert, and heated flow path as the EGA/PY-3030D, and can use a variety of analytical techniques. Often used in a Quality Control lab, the PY-3030S can be fully automated with the AS-1020E 48 sample Auto-Shot Sampler.

Features

- Any organic materials can be analyzed using some or all of these techniques:
  - Isothermal Thermal Desorption (TD)
  - Single-Shot Pyrolysis (PY)
  - Reactive Pyrolysis (RxPy)
- F-Search software and three MS libraries provide essential tools for polymer and additive interpretation when using GC with MS detection.
- Accessories add even more capability:
  - UV Irradiator (UV-1047E)
  - Micro Thermal Desorption Sampler (PY-1060)
  - Micro Reaction Sampler (PY-1050)

GERSTEL MultiPurpose Sampler (MPS)

Improve productivity, ensure accuracy and reliability

GERSTEL MultiPurpose Sampler (MPS) is a highly productive LC autosampler and sample preparation robot. In combination with the GERSTEL MAESTRO Software, the MPS provides more performance and higher productivity in sample preparation than any other commercially available LC/MS or LC autosampler. The MPS is compatible with all standard LC Systems.

Features

- Complete automation of every step from sample preparation to GC/MS or LC/MS analysis
- Intelligent, multi-sample parallel processing of sample preparation and analysis
- Samples can be inserted into the running sequence for priority analysis
- Simple operation through integrated control of every step from sample prep to analysis
- All system parameters and deviations are logged for full traceability
- Immediate status reports by e-mail enable continued productivity
- User-defined real-time display of system parameters and sequence progress
- Multi-method sequences enable flexible operation and efficient method development
- Modular system: The MPS can be configured to perform multiple sample preparation techniques. Additional techniques are quickly added for easy adaptation to new analytical tasks
- Dual syringe system enables flexible automated sample preparation and introduction

Tekmar AQUATek 100 Purge & Trap Autosampler

Automated, compliant and reliable

TELEDYNE TEKMAR
Everywhereyoulook™

AQUATek 100 is a purge and trap autosampler that automates the sample preparation steps for the analysis of liquid samples utilizing a fixed volume sample loop filled using a pressurization gas. Two independent volume programmable internal standards are then added to the sample and the entire aliquot is transferred to the Purge and Trap for compound concentration and subsequent separation and detection using a GC/GC-MS quantification system.

Features

- 30% more sample capacity with its 100-vial carousel for standard 40mL vials
- Auto blanking is now available without sacrificing sample positions on the carousel thus allowing utilization of every vial space on the carousel for samples
- Built in chilling feature
- Two - 15mL UV-protected standard spiking vessels to prevent compound breakdown. Capable of varying volume delivery in 1, 2, 5, 10, and 20µL aliquots with zero waste
- Unique slide out Plumbing Access Compartment (PAC) simplified tasks such as changing sample loops and other maintenance tasks.
- Interchangeable loop system available in 5mL, 10mL, 20mL, and 25mL sizes
- Automated diagnostics and leak check
- Entire liquid pathway can be rinsed using the patented high temperature OptiRinse cleaning techniques
- Pressurized water reservoir for blanking and system rinsing included

Tekmar Atomx Automated VOC Sample Prep System

Automation and concentration in one system

TELEDYNE TEKMAR
Everywhereyoulook™

Atomx Automated VOC Sample Preparation system combines an Autosampler and Purge and Trap into a single instrument for the analysis of VOCs in soils and waters. It employs a unique methanol extraction automation feature for high level soils in accordance with US EPA Method 5035. A proven carousel drive capable of holding 80-vials for optimal throughput therefore reducing downtime. While priced competitively, this system offers unique features that cannot be found on other sample prep systems on the market today.

Features

- Single, compact platform system autosampler with built-in purge and trap for all water and soil matrices including drinking water and wastewater
- Capable of sampling low level and high level soil samples
- 80-position carousel design for optimal throughput
- Digital Mass Flow Controller (MFC) for independent mode flow control
- Chiller options available for EPA requirements
- Ability to vary sample volume in 1mL aliquots from 1-25mL
- Reduce carryover with Extractasol - dedicated methanol port for rinsing needle, sample lines, and glassware
- Water reservoir included with standard instrument package
- Three - 15mL UV-protected standard spiking vessels prevent possible compound break-down. Capable of varying volume delivery in 1, 2, 5, 10, and 20µL aliquots with zero waste
- Automated system leak check diagnostics
- CFR compliance tools available

Diablo 5000A Real Time Gas Analyzer

Fast chemical analysis without comprimise

Diablo Analytical, Inc.
A Technology and Development Company

The Diablo 5000A Real-Time Gas Analyzer (RTGA) is a real-time chemical measurement tool for continuous process improvement. It is ideal for applications where fast chemical analysis is required, such as monitoring process transients and dynamic continuous reactions. The 5000A RTGA can be used for fuel cell gas analysis, syngas monitoring, catalyst research, monitoring of volatile solvent residues, pharmaceutical reactor headspace monitoring, and many other applications.

Features

- Fast, real-time response to process changes
- Flexible, rugged, fast-responding direct process sampling interface
- Uses a high-performance Agilent Technologies 5975 or 5977 quadrupole mass spectrometer (5975C or 5977A MSD)
- Quick and easy conversion of 5975/5977 MSD from the direct RTGA-MS configuration to standard GC-MS configuration
- Linear response and stable, reliable quantitative analysis with active compensation for changes in process pressure
- Hardware and software enhancements enable detection of low-mass species like hydrogen with the 5975/5977 MSD

Agilent InfinityLab LC/MSD Series

Extend the boundaries of your analysis

Agilent Technologies

Premier Solution Partner

The new **Agilent InfinityLab Series of LC/MSD** are single quadrupole systems that bring the power of mass selective detection to your chromatography for enhanced analytical confidence. In conjunction with the Agilent 1260 and 1290 Infinity II LC systems, they combine the power of mass selective detection with data reporting software tools to enhance lab efficiency and ROI.

For complex challenges such as biomolecule analysis and high-throughput screening, the Agilent LC/MSD XT offers the highest performance for quantitative applications.

For basic pharmaceutical analysis to synthetic chemistry to routine food testing applications, the Agilent LC/MSD is designed for the chromatographer who wants to work more efficiently.

Features

- Rapidly screen compounds and confirm molecular weights
- Quantitate target compounds
- Identify impurities
- Purify target compounds in complex mixtures

Agilent Ultivo Triple Quadrupole LC/MS

Unbelievably powerful. Remarkably Small.

Agilent Technologies

Premier Solution Partner

Agilent Ultivo Triple Quadrupole LC-MS is a stackable LC/TQ that eliminates the MS footprint by incorporating the MS into the LC stack. At the core of Ultivo are unique features that afford technicians the sensitivity, robustness, reliability, and performance required for the day-in, day-out challenges of high-throughput sample analysis in the applied markets. Its software has been streamlined to emulate your targeted workflows, and system diagnostics alert you in a straightforward manner to items requiring attention

Features

- Increase sample throughput through faster scanning
- Produce better results by getting more ions to the detector
- VacShield enables quick and seamless maintenance
- Maximize laboratory real-estate with a footprint 70% smaller than other similar instruments
- Reduce instrument downtime with intelligent diagnostics and intuitive read-backs
- Advanced efficiency

Agilent 6230B Accurate-Mass Time-of-Flight (TOF) LC/MS

Exceptional MS performance without compromises

Agilent Technologies

Premier Solution Partner

Agilent 6230B TOF LC/MS system provides accurate mass analyses for a variety of analytical applications including profiling, identification, characterization, and quantification of both small and large molecules. Together with advanced accurate mass software processing tools the 6230B supports applications including drug development, toxicology, and the analysis of recombinant proteins. The system supports MS/MS applications by using fragments formed in the desolvation region of the ion source.

Features

- Reduce false positives with better than 1 ppm mass accuracy
- Acquire data at 30 spectra per second to ensure excellent data quality for fast UHPLC peaks in high-throughput workflows
- Confidently identify small molecules based on accurate mass and isotopic abundance and chemical composition using Find by Formula in MassHunter software.
- Separate target compounds from interferences with mass resolution of greater than 22,000
- Find impurities at extremely low concentrations – Agilent Jet Stream technology provides low picogram on-column sensitivity
- Identify trace level target compounds – in the presence of more abundant matrix compound – with up to 5 orders of in spectrum dynamic range
- Intuitive “walk-up” software makes the 6230B an ideal analytical tool for medicinal and synthetic chemists as well as biologists
- New All Ions MS/MS Technique for Targeted and Untargeted Screening on TOF and Q-TOF LC/MS

Agilent 6400 Series Triple Quadrupole LC/MS

Renowned reliability, overall system robustness

Agilent Technologies

Premier Solution Partner

Meet your quantitative needs with triple quadrupole performance that gives you superior sensitivity, renowned reliability, and overall system robustness. **Agilent 6400 Series Triple Quadrupole LC/MS Systems** are proven choices for quantitative applications in pharmaceutical ADME/DMPK studies, biomarker validation, clinical research, food testing, forensics, toxicology, and environmental analyses.

Choose an Agilent 6420, 6460, 6470 or 6495 Triple Quadrupole LC/MS system for unmatched productivity, performance, and value for all your analytical needs.

Available Models

- Agilent 6420 is an economical and easy to use instrument for laboratories requiring routine and standard quantitative capabilities
- Agilent 6460 adds proven Agilent Jet Stream technology to dramatically increase sensitivity and reliability for trace level analysis and a wide range of challenging applications
- Agilent 6470 incorporates enhanced ion optics and detector design to deliver attogram-level sensitivity and support high-throughput labs with ultrafast analyses, 24/7 reliable operation, and highest productivity
- Agilent 6495 delivers the lowest attogram-zeptomole limits of detection and quantitation over the widest linear dynamic range for your most demanding applications

Agilent 6500 Accurate Mass Quad Time-of-Flight (Q-TOF) LC/MS

Get the most information from your samples

Agilent Technologies

Premier Solution Partner

Whether you need to identify, screen, profile, or perform quantitation on complex samples, **Agilent 6500 Q-TOF LC/MS** is ready. When simultaneous speed, sensitivity, accuracy, and dynamic range come together, you get the most information from your samples. The immense detail revealed is harnessed by MassHunter software to provide answers you can trust. Find out how an Agilent Q-TOF can help solve metabolomics, pharmaceutical research, discovery proteomics, food safety, forensics, toxicology, and environmental screening challenges.

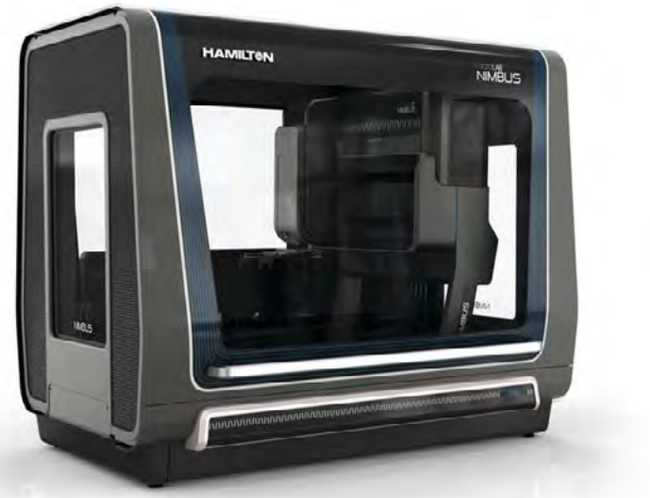
Available Models

- Agilent 6530 Q-TOF LC/MS - Get the full power of high resolution accurate mass MS/MS detail in an instrument ready for research or routine applications
- Agilent 6545 Q-TOF LC/MS - Expert level performance in an instrument designed for intensive daily use
- Agilent 6545XT AdvanceBio LC/Q-TOF – Designed to be the cornerstone of multiple biopharma workflows, with exceptional intact protein performance
- Agilent 6550 iFunnel Q-TOF LC/MS – Achieve femtogram-level sensitivity – iFunnel increases ion transfer to achieve the lowest detection levels of any high resolution LC/MS instrument
- Agilent 6560 Ion Mobility Q-TOF LC/MS – Reveal greater detail with unmatched ion mobility performance for an added dimension of separation

Hamilton Microlab NIMBUS Personal Pipetting Workstation

Superior performance at an affordable price

HAMILTON®



The Microlab NIMBUS workstation from Hamilton is a compact, multi-channel automated liquid handler that offers speed, flexibility, ease of use and superior pipetting performance - at an affordable price.

In contrast to large, multi-integrated, high-end systems designed for automating complex workflows, the NIMBUS is a small-footprint, lean-integrated, entry-level pipettor ideally suited for automating a single or select set of liquid handling routines. A flexible deck layout and a broad range of modular accessories and options makes reconfiguration for new applications quick and easy.

Features

- Proprietary Compressed O-Ring Expansion (CORE) technology attaches disposable tips using lock-and-key style mechanism, enabling a positional precision of + 0.1mm on all axes
- Air Displacement Pipetting reduces risk of contamination, and delivers high accuracy and precision
- Anti-Droplet Control compensates pressure changes in real-time in the liquid channels
- Monitored Air Displacement detects clots or empty wells during the aspiration step in real-time
- Total Aspiration and Dispense Monitoring verifies with a traceable digital audit trail that a sample has been successfully transferred
- Liquid Level Detection determines liquid levels in tubes and plates located on the pipetting deck

Hamilton Microlab STAR Lab Automation Platform

Unrivaled features maximize sample care and integrity

The Microlab STAR Line of workstations uses air displacement pipetting and the unique CO-RE system for forceless tip pickup and ejection. These unrivaled features maximize sample care and integrity. This technology is applied to independent pipetting channels and multi-probe heads; simply switch on your system and start running your method.

Due to the modular design, changes and upgrades to existing configurations are easy with STAR instruments. As your projects change, your STAR workstation can also evolve to meet new challenges. Most upgrades can be performed in your lab within one or two days to minimize downtime.

Features

- Air Displacement Pipetting
- Compressed O-Ring Expansion Technology
- Total Aspirational and Dispense Monitoring
- Anti-Droplet Control
- Dynamic Liquid Classification
- Dual Liquid Level Detection

Syft Voice200ultra SIFT-MS

Analyze volatile organic compounds in real time

The **Voice200ultra SIFT-MS** (Selected Ion Flow Tube Mass Spectrometry) enables the analysis of multiple chemically-diverse VOCs in a single scan. Analysis identifies compounds present and their concentrations.

The SIFT-MS includes a touch-screen interface and networking capability, making it very easy to operate and support. It is most ideally suited for rapid analysis of gaseous samples (whole-air, headspace above solids and liquids, and breath).

Features

- Instantaneous, quantitative analysis of air and headspace with very high sensitivity and selectivity
- Simultaneous analysis of chemically diverse VOCs (e.g. aldehydes, amines and organosulfurs)
- Direct analysis of high humidity samples
- Simplicity of operation
- Simple integration with existing infrastructure
- Low maintenance and long-term stability
- Install in a fixed position or vehicle-mounted

Agilent 7800 ICP-MS

Removes uncertainty, simplifies routine analysis

Agilent Technologies

Premier Solution Partner

The **Solution-Ready Agilent 7800 ICP-MS** combines proven, robust hardware, auto-optimization tools, and Pre-set Methods to simplify routine analysis. With high matrix tolerance, wide dynamic range, and effective control of polyatomic interferences, the hardware takes the uncertainty out of analyzing complex or variable sample matrices. The 7800 ICP-MS is extraordinarily easy to set up and use, so you can quickly produce reliable results in the widest range of sample types.

Features

- Fast track your routine metals analysis with ICP-MS MassHunter software
- Reduce sample preparation by analyzing samples containing up to 3% total dissolved solids (TDS) without dilution
- HMI reduces signal suppression, so high matrix samples can be measured accurately without requiring matrix matched calibration standards
- Ensure accurate data with effective interference removal
- Analyze major and trace analytes in a single run
- Maximize throughput and productivity

Agilent 7900 ICP-MS

Raise your expectations

Agilent Technologies

Premier Solution Partner

Raise your expectations—the new **Agilent 7900 ICP-MS** opens up a new dimension in ICP-MS. With 10x higher matrix tolerance, 10x wider dynamic range and 10x better signal to noise than the world's bestselling 7700 ICP-MS Series, plus software so powerful that it can write your methods for you, the Agilent 7900 ICP-MS redefines ICP-MS. Again. The world's most powerful and automated ICP-MS includes the industry's most effective helium collision mode for unsurpassed interference removal, ensuring superior data quality whatever your application. With every component engineered for performance and reliability, Agilent's 7900 ICP-MS will put you on the path to success.

Features

- Robust plasma and optional Ultra High Matrix Introduction (UHMI) technology enable you to routinely measure samples containing up to 25% total dissolved solids (TDS)
- Widest dynamic range — measure trace elements and majors in the same run.
- Better trace level detection
- Faster analysis of transient signals
- Unmatched ease-of-use with the MassHunter software
- Improved productivity

Agilent 8900 Triple Quadrupole ICP-MS

Leave interferences behind with MS/MS

Agilent Technologies

Premier Solution Partner

The 2nd generation **Agilent 8900 ICP-QQQ** offers a range of configurations to cover applications from routine contract analysis to advanced research and high performance materials analysis. With helium mode performance and productivity to match Agilent's market-leading quadrupole ICP-MS systems, the Agilent 8900 ICP-QQQ adds MS/MS mode for controlled and consistent interference removal in reaction mode, making it the world's most powerful and flexible multi-element analyzer.

Features

- Controlled reaction chemistry for consistent, reliable results
- Resolution of isobaric overlaps, beyond capability of high-resolution ICP-MS
- Lowest detection limits, even for previously difficult elements such as S, Si, P
- Powerful ICP-MS MassHunter software simplifies your workflow and automates your method development
- 4-channel cell gas control as standard
- Unique precursor/product ion scan modes clarify reaction processes
- The most exciting and versatile ICP-MS for research and method development

Agilent 5110 ICP-OES

Run your toughest samples without compromise

Agilent Technologies

Premier Solution Partner

The **Agilent 5110 Synchronous Vertical Dual View (SVDV) ICP-OES** features unique Dichroic Spectral Combiner (DSC) technology that enables synchronous radial and axial measurements. Combined with a vertical torch and high speed, zero gas consumption VistaChip II CCD detector, the 5100 ICP-OES (also referred to as ICP-AES) runs even your toughest samples up to 55% faster using 50% less argon, without any compromise on analytical performance.

Features

- Run the fastest ICP-OES analysis, using less gas
- Reduce your cost-per-analysis and more than double your productivity with an Advanced Valve System (AVS)
- Measure your toughest samples with a vertical torch – from high matrix to volatile organic solvents
- Reduce sample uptake, stabilization times, and rinse delays using the optional AVS
- See all elements in your sample at a glance - simplifying method development and enabling rapid sample screening
- Achieve long term analytical stability with a solid-state RF system that delivers a robust plasma
- Take the guess work out of method development with intuitive ICP Expert software and our DSC technology
- Ensure fast startup with minimal training using a fully integrated switching valve and a plug-and-play torch
- Available in three flexible configurations: Synchronous Vertical Dual View, Vertical Dual View and Radial View

Agilent Compact & Portable FTIR Systems

Meeting the challenges of FTIR analysis in the field

Agilent Technologies
Premier Solution Partner

To meet the challenges of FTIR analysis in the field, Agilent has developed the world's smallest FTIR instruments. Compact FTIR systems deliver the sensitivity and efficiency of a lab-based system, yet are fully portable. These portable FTIR systems feature integrated power supplies and Flexscan and Exoscan technology for efficient scanning performance. Lightweight handheld FTIR optics and sampling modules enable advanced FTIR capabilities in field applications such as conservation and mineral identification.

Available Models

- **Agilent 4300 Handheld** - employing lightweight ergonomics, ease of use, ruggedness, and flexibility into one system
- **Agilent 4500 Series Portable** - support at site analysis of incoming materials and outgoing finished products in the chemical, food and polymer industries
- **Agilent 5500 Series Compact** - provide you with great results rapidly and reliably day after day

4300 Series

4500 Series

Agilent Benchtop FTIR Instruments

Industry-leading sensitivity and efficiency

Agilent Technologies

Premier Solution Partner

Agilent's **FTIR benchtop instruments** provide industry-leading sensitivity and efficiency in a variety of materials research applications. We have the system for your needs, whether you require robust and consistent operation for routine petro-chemical analysis, or high sensitivity and a wide spectral range for research in polymer analysis or material science. Our versatile and intuitive Cary FTIR systems can also be enhanced with an extensive portfolio of accessories and supplies.

Cary 630

Features

- **Agilent Cary 630 FTIR Spectrometer** provides superior quantitative and qualitative information for routine analysis of solids, liquids, and gases. With high performing optics and a wide range of sample interfaces
- **Agilent Cary 660 FTIR Spectrometer** high-performance spectrometer suitable for routine spectrometry and research analysis
- **Agilent Cary 670 FTIR Spectrometer** designed to provide the highest performance for researchers in fields such as polymers/materials, pharmaceuticals, biotechnology and chemicals

Agilent FTIR Microscopes & Imaging Systems

Screen more samples faster

Agilent Technologies

Premier Solution Partner

The **Agilent Cary FTIR microscopes and chemical imaging systems** represent the latest in cutting-edge performance, delivering unparalleled spatial resolution and sensitivity. When coupled with the wide range of options available, they provide flexibility to suit all applications ranging from routine measurements to cutting-edge applied research.

The Cary 610 is a single point FTIR microscope, capable of mapping, while the Cary 620 is a Focal Plane Array (FPA) chemical imaging FTIR microscope.

With the option to couple the microscope to either a research-grade Cary 660 FTIR or top of the range, air bearing, Cary 670 FTIR spectrometer, you get two instruments in one – a research FTIR spectrometer and an FTIR microscope.

The Cary 610 can be upgraded to a Cary 620 at a later date, providing flexibility for when application needs change.

Cary 620

Galaxy Scientific QuasIR FT-NIR Spectroscopy Systems

Maintains performance under extreme conditions

The **QuasIR™ Fourier Transform Near Infrared Spectroscopy** (FT-NIR) Series from Galaxy Scientific provides a fast, simple, non-invasive way to determine the chemical makeup of a variety of samples for both qualitative and quantitative information. QuasIR technology was developed with an innovative optical design that maintains alignment and performance under extreme conditions.

Features

- Compact, portable, and high performance FT-NIR spectrometers probe for lab, field, and on-line applications
- Innovative optical design that maintains alignment and performance under extreme conditions
- Unmatched instrument-to-instrument consistency and direct method transfer so you can expand your fleet
- Automatic Performance Testing Unit provides an easy, automated way to monitor instrument performance
- Software suite delivers ease-of-use for everyday analysis and functions for advanced method developers
- Low Cost of Ownership:
  - 20,000-hour user replaceable NIR source
  - 10-year laser life
  - 10-year interferometer drive
  - User replaceable desiccant