

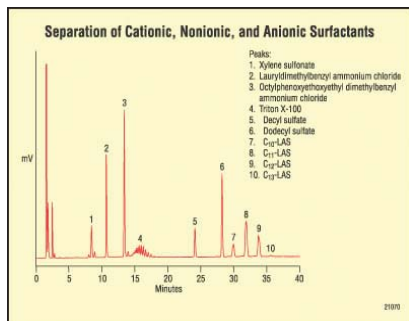


### LC-MS system

Waters' ACQUITY SQD Ultra Performance LC-MS system is designed to provide information about the identity of pharmaceutical, biological, industrial, and environmental compounds. The system includes the company's SQ detector, a single-quadrupole, atmospheric pressure ionization mass detector. The system reportedly tunes and calibrates the detector and conducts performance checks using the company's IntelliStart Diagnostic software. Waters Corporation, Milford, MA.

[www.waters.com](http://www.waters.com)

Circle 100



### HPLC column

Dionex's Acclaim Surfactant HPLC column is designed for the analysis of anionic, nonionic, and cationic surfactants. According to the company, the column's bonding chemistry allows for effective deactivation of free silanols toward positively charged cationic surfactants. Dionex Corporation, Sunnyvale, CA.

[www.dionex.com](http://www.dionex.com)

Circle 103



### GC liners

Hamilton's GC liners are designed to provide the highest performance with no loss of the original sample and accurate quantitation of labile-reactive compounds. According to the company, each batch of the deactivated liners is tested, and liners for Agilent and Varian GC systems are available. The liners are supplied in packages of 1, 5, or 25 liners. Hamilton Company, Reno, NV.

[www.hamiltoncompany.com](http://www.hamiltoncompany.com)

Circle 101

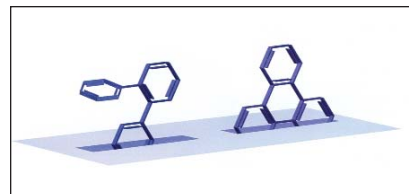


### HPLC columns

GL Sciences' Titansphere HPLC micro-columns are designed for the enrichment of phosphorylated peptides from peptide mixtures. The columns are packed with porous titanium dioxide microspheres that allow the binding of organic phosphates in acidic conditions and desorption of the phosphates at alkaline pH. GL Sciences, Inc., Torrance, CA.

[www.inertsil.com](http://www.inertsil.com)

Circle 104



### HPLC phase

Macherey-Nagel's Nucleodur C18 Isis HPLC stationary phase is designed with C18 silanes and polymeric bonding that provides a dense shield of alkyl chains to protect the subjacent silica matrix. According to the company, a subsequent end-capping step decreases the number of nonderivatized silanol functions and minimizes possible unwanted interactions with strong basic analytes. This phase reportedly can be used to separate positional and structural isomers and planar and nonplanar compounds. Macherey-Nagel, Easton, PA.

[www.mn-net.com](http://www.mn-net.com)

Circle 102



### Eluent synthesizer

Metrohm-Peak's Metrohm 845 eluent synthesizer is designed to automatically prepare certified GLP-compliant eluents, mobile phases, buffer solutions, standards, and dilutions with precise mixtures and batch-to-batch reproducibility. The instrument reportedly can handle aqueous solutions, acidic or basic buffers, and organic mobile phases from as many as four freely selectable concentrates and one main component. Metrohm-Peak, Inc., Houston, TX.

[www.mp-ic.com](http://www.mp-ic.com)

Circle 105



### **Ion chromatography system**

Dionex's ICS-3000 Reagent-Free ion chromatography system is designed to increase productivity and overall system performance as much as 10-fold. The system can be upgraded to perform dual analyses without increasing the system footprint or requiring a second autosampler. The system's chemically inert flow path is designed to withstand pH extremes and protect samples from metal contamination. A touchscreen tablet PC mounted on a movable arm provides system control. Dionex Corporation, Sunnyvale, CA.

[www.dionex.com](http://www.dionex.com)

Circle 106



### **Method development system**

Cohesive Technologies' model TLX-1MD turbulent flow chromatography (TurboFlow) sample preparation method development system is designed to automatically screen multiple columns and mobile-phase conditions. The system reportedly allows researchers to run multiple methods unattended, overnight. The system can be used to perform both turbulent flow chromatography and HPLC. Cohesive Technologies, Inc., Franklin, MA.

[www.cohesivetech.com](http://www.cohesivetech.com)

Circle 109



### **Derivatization reagent**

A derivatization reagent from Regis Technologies, 3 N hydrochloric acid in butanol, is used for newborn metabolic screening by tandem MS. According to the company, production under cGMP protocols ensures lot-to-lot consistency. The reagent is available in a variety of packaging types. Regis Technologies, Inc., Morton Grove, IL.

[www.registech.com](http://www.registech.com)

Circle 107



### **A/D interface verification system**

H&A Scientific's ADIVP-3 analog-to-digital interface verification system is designed to verify linearity, reproducibility, and accuracy of chromatographic A/D interfaces. The system's hardware consists of an EPROM chip and a high resolution digital-to-analog converter that outputs a predefined waveform voltage to the A/D interface under study. The system's software is a Microsoft Windows 2000/XP program that generates printed reports outlining and detailing the results of the investigation. H&A Scientific, Greenville, NC.

[www.hascientific.com](http://www.hascientific.com)

Circle 110



### **Wellplate kits**

Sun Sri's WebSeal wellplate kits comprise 96-well micro titer plates with glass inserts and a silicone-PTFE coated sealing mat. The plates reportedly provide 96 inert chambers and reduce the risk of cross-contamination from well to well when removing the cover. The plates are compatible with all autosamplers using 96-well configurations. The sealing mats reportedly have a working temperature range of  $-80^{\circ}\text{C}$  to  $200^{\circ}\text{C}$  and are capable of resealing after multiple injections. The kits can be used for applications in life sciences, high-throughput screening, and combinatorial chemistry labs. Sun Sri, Duluth, Ga.

[www.sun-sri.com](http://www.sun-sri.com)

Circle 108



### **Automated supported liquid extraction**

Biotage's Isolute SLE+ supported liquid extraction plates are designed to produce higher analyte recoveries and improve sample preparation productivity. The 96-well procedure reportedly is easily automated, with no off-line steps. Each well contains a modified form of diatomaceous earth. According to the company, each plate is optimized for the simultaneous extraction of 96 biological fluid samples. Biotage, Charlottesville, VA.

[www.biotage.com](http://www.biotage.com)

Circle 111



### Gas purifier

Supelco's Click-On Inline Super Clean gas purifier is designed with a one-time connection that allows users to install the purifier into the "click-on" connector and reduce the risk of contamination to the gas line. According to the company, the purifier purifies carrier and fuel gas for hydrocarbons, oxygen, and moisture to better than 6.0 (99.9999%), independent of the gas quality. Supelco, Bellefonte, PA.

[www.sigma-aldrich.com/supelco](http://www.sigma-aldrich.com/supelco)

Circle 112



### High-pressure fittings

Upchurch's two-piece stainless steel fittings for ultrahigh pressure LC are designed for pressures up to 28,000 psi (1930 bar). According to the company, the fittings work in standard 10/32 coned ports with ferrule options for both 1/16-in. and 1/32-in. o.d. tubing. Upchurch Scientific, Oak Harbor, WA.

[www.upchurch.com](http://www.upchurch.com)

Circle 115



### Nitrogen generator

Parker's NitroFlow Lab self-contained membrane nitrogen generator is designed to produce up to 99% pure nitrogen with pressures up to 116 psig. According to the company, high and low pressure compressors filtered by high efficiency coalescing filters remove contaminants down to 0.01  $\mu$ m. Applications include nebulizer gases, chemical and solvent evaporation, instrument purge and supply, evaporative light scattering detector use, and sparging. Parker Balston, Haverhill, MA.

[www.parker.com](http://www.parker.com)

Circle 113



### Automated SPE system

Gerstel's automated SPE system for the company's MultiPurpose Sampler (MPS) is based on standard 3-mL cartridges and uses disposable needles for liquid transfer. The system reportedly enables users to combine automated SPE with introduction to LC-MS or GC-MS systems. Gerstel, Inc., Baltimore, MD.

[www.gerstelus.com](http://www.gerstelus.com)

Circle 116



### Automated evaporator-concentrator

The DryVap automated concentrator system from Horizon is designed to combine Kuderna-Danish concentration, nitrogen blow down, and drying of organic solvents into one step with precision and accuracy for GC and GC-MS analyses. According to the company, the bench-top system uses a separation membrane that automatically dries solvents in seconds and that concentrates solvent volumes of 2–200 mL to precisely 0.9 mL in less than 30 min. Horizon Technology, Inc., Salem, NH.

[www.horizontechinc.com](http://www.horizontechinc.com)

Circle 114



### Hydrogen storage system

Quadrex's H-Bank hydrogen storage system is designed to be a hydrogen source for portable GC-FID systems, remote laboratories, fuel cell systems, and other gas-purity-sensitive systems. The system provides storage of hydrogen at ambient temperature and at a designed pressure range from 1.5 to 10 atm. According to the company, the portable system is capable of thousands of charge-discharge cycles and is capable of providing high purity hydrogen (over 99.9999%). Quadrex, Woodbridge, CT.

[www.quadrexcorp.com](http://www.quadrexcorp.com)

Circle 117





### HPLC columns

Phenomenex's Onyx C18 100 mm × 3 mm monolithic silica HPLC columns are designed for high-throughput applications. According to the company, the flow characteristics and high efficiency of columns allows high flow rates at low back pressures, resulting in reduced run times. Phenomenex, Inc., Torrance, CA.

[www.phenomenex.com](http://www.phenomenex.com)

Circle 118

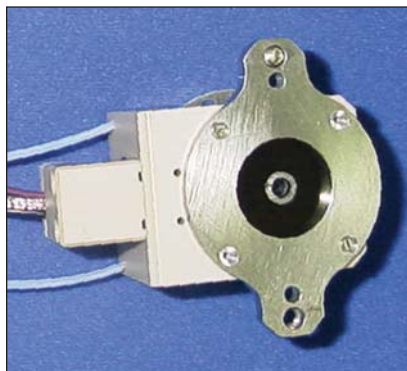


### Data acquisition software

Thermo's LCQUAN 2.5 data acquisition software system is designed to be used with the company's Finnigan TSQ Quantum triple quadrupole mass spectrometers. According to the company, the software enables 21 CFR Part 11 compliance. The software reportedly provides remote disk support, a centralized file location that ensures fast data archiving and retrieval of project files, and a one-window quantitation feature. Thermo Electron Corporation, Waltham, MA.

[www.thermo.com](http://www.thermo.com)

Circle 121



### TOF detector

BURLE's Co-Axial BiPolar TOF detector is designed for MS applications. The detector reportedly incorporates the high temporal resolution of the MCP-based detectors with the coaxial capabilities of flat metal anode detectors. According to the company, the detector has a postacceleration voltage of 10 kV and is available for flight-tube mounting, unmounted, or mounted on a Conflat flange. BURLE Electro-Optics, Inc., Sturbridge, MA.

[www.burle.com](http://www.burle.com)

Circle 119

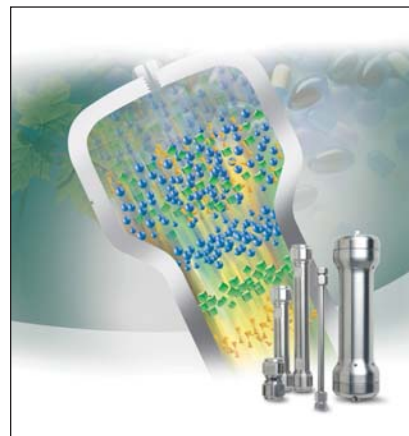


### LC pump

Leap's 3×Ti-Pump is designed to produce accurate gradients over three flow rate ranges with a splitting device. The ranges are standard, to 2 mL/min; micro, down to 25 μL/min; and nano, down to 25 nL/min. The nano flow range reportedly utilizes a flow monitor-splitter with custom algorithms to adjust for flow variations due to viscosity changes. According to the company, the pump can be used with a broad range of columns without changing pump heads. LEAP Technologies, Carrboro, NC.

[www.leaptec.com](http://www.leaptec.com)

Circle 122



### HPLC columns

Varian's Pursuit XRs reversed-phase HPLC columns are designed to provide ultra-high resolution separations in research and development, production, and quality control applications. According to the company, the columns enable precise and accurate first-time resolution and quantification of complex mixtures, speed up method development and validation, and are exceptionally stable. Varian, Inc., Palo Alto, CA.

[www.varianinc.com](http://www.varianinc.com)

Circle 120



### Process-development columns

Tosoh's ToyoScreen process-development columns feature prepacked Toyopearl resins. The columns can be used for resin screening, process-optimization experiments, or microgram-amount purifications. They are offered in hydrophobic interaction, affinity, and ion-exchange chemistries in 1- and 5-mL formats. Tosoh Bioscience, LLC, Montgomeryville, PA.

[www.tosohbioscience.com](http://www.tosohbioscience.com)

Circle 123



### Automatic TLC sampling system

CAMAG's thin-layer chromatography sampler provides fully automatic sampling in planar chromatography. The instrument applies samples as spots by contact transfer or as narrow bands by a spray-on mode. It can sample from vials or well-plates. The sampling system can be qualified for installation and operation for use in a GMP-GLP environment. CAMAG Scientific, Inc., Wilmington, NC.

[www.camagusa.com](http://www.camagusa.com)

Circle 124



### Website

Phenomenex's [www.strataSPE.com](http://www.strataSPE.com) website is designed to provide services and information about solid-phase extraction (SPE) for sample preparation, including customer services for technical and application support, interactive SPE method development, and SPE demonstration videos. According to the company, the website also provides information about the company's SPE products. Phenomenex, Inc., Torrance, CA.

[www.phenomenex.com](http://www.phenomenex.com)

Circle 127



### Immobilized liquid extraction system

Wohleb Scientific's immobilized liquid extraction (ILE) system is designed for extracting organic compounds from aqueous samples for gas and liquid chromatographic analysis. The system reportedly involves a device that is coated with a sorptive siloxane-elastomer such as polydimethylsiloxane (PDMS), which acts as the extraction medium. Wohleb Scientific, Incorporated, Ferndale, CA.

[www.wohle.com](http://www.wohle.com)

Circle 125

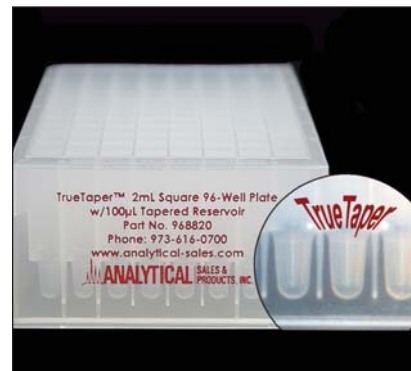


### SFC columns

Chiral Technologies' SFC chiral columns are designed to be used with analytical and preparative SFC equipment. The columns are available in standard-coated Daicel phase, immobilized, and Lindner phases. The columns are available in sizes ranging from 100 mm × 4.6 mm to 25 cm × 5 cm. All columns contain 5- $\mu$ m particles. Chiral Technologies Inc., Exton, PA.

[www.chiraltech.com](http://www.chiraltech.com)

Circle 128



### Collection plate

Analytical Sales' TrueTaper 96-well collection plate is designed for chromatographers with limited sample quantity. The collection plate reportedly incorporates a smooth, tapered well that allows the sample to gravitate to the bottom. According to the company, the total volume is 1.8 mL and the plate's well capacity is 100  $\mu$ L. Analytical Sales and Services, Inc., Pompton Plains, NJ.

[www.analytical-sales.com](http://www.analytical-sales.com)

Circle 126



### LC system

Nanostream's CL LC system is designed to increase analytical throughput 24-fold and reduce costs for a range of applications including purity, solubility, comparative stability, formulation, and dissolution studies. The system is designed to integrate with existing laboratory instruments. The system consists of a six- or eight-needle autosampler, binary pumps, real-time UV absorbance detection, and software. Nanostream, Pasadena, CA.

[www.nanostream.com](http://www.nanostream.com)

Circle 129



### Postcolumn system

The Pinnacle PCX postcolumn derivatization system from Pickering is designed to precisely and selectively separate analytes. The system's pulse-free syringe pump runs only during the injection cycle. According to the company, the instrument works with most brands of HPLC systems and is supported with validated applications to separate complex mixtures and detect a range of compounds with sensitivity, stability, and reproducibility. Pickering Laboratories, Inc., Mountain View, CA.

[www.pickeringlabs.com](http://www.pickeringlabs.com)

Circle 130



### TLC derivatization system

Analtech's Derivapress TLC derivatization system is designed to effectively visualize a plate in 3 s with more even application than any sprayer and less solvent used than dipping. The company offers two size models for TLC and HPTLC plates. Analtech, Inc., Newark, DE.

[www.analtech.com](http://www.analtech.com)

Circle 133



### Headspace system

Teledyne's HT3 headspace sampling system is designed to run static and dynamic headspace techniques in one system. According to the company, the system increases sensitivity by continually sweeping the sample and then trapping the VOCs. The system is designed for a wide variety of applications including food and flavor analysis, residual solvents and organic volatile impurity analysis, blood alcohol and forensic analysis, polymer analysis, and environmental analysis. Teledyne Tekmar, Mason, OH.

[www.teledynetekmar.com](http://www.teledynetekmar.com)

Circle 131



### Lock caps

Fisher Chemical offers laboratory chemicals with FisherLOCK caps that are designed to help maintain product quality and chemical safety. The caps reportedly provide a tight, secure seal to ensure chemical contents arrive fresh and eliminate polyethylene glycol contamination that is possible with a plastic overseal. According to the company, color-coded rings indicate storage requirements and hazard categories and enhance proper recognition and storage. Fisher Chemical, Pittsburgh, PA.

[www.fishersci.com](http://www.fishersci.com)

Circle 134



### Recycling program and packaging

MicroLiter offers a recycling program and packaging for closures and inserts. The packaging is designed to store and maintain consumable supplies. The top of the pack can be cut to dispense like a coin purse, or it can be installed on the company's benchtop dispenser. Users can return empty containers to the company using a company-provided UPS return service label so that the containers can be used on their next order. MicroLiter Analytical Supplies, Inc., Suwanee, GA.

[www.microliter.com](http://www.microliter.com)

Circle 132



### LC-MS gas generation system

Parker Balston introduces the SOURCE LCMS-5000 LC-MS gas generation system, which produces nitrogen, zero air and exhaust pump gases. It combines a compressor with coalescing filters, catalysts, and hollow-fiber membranes to produce these gases. Parker Hannifin Corporation, Haverhill, MA.

[www.parker.com](http://www.parker.com)

Circle 135





### Ion-trap LC-MS system

Agilent's model 6340 ion-trap LC-MS system is designed with an electron transfer dissociation (ETD) unit for the study of proteins and posttranslational modifications. According to the company, the system in ETD mode provides extensive amino acid sequence information in the form of complementary c- and z-series ions. The system reportedly can alternate between ETD and collision-induced dissociation fragmentation modes from scan to scan. Agilent Technologies, Inc., Palo Alto, CA.

[www.agilent.com/chem](http://www.agilent.com/chem)

Circle 136



### Solvent solutions

Honeywell Burdick & Jackson's LabReady solvent blends are designed to reduce concerns of contamination, solvent disposal, and exposure that might occur from blending solvents in the laboratory. The blends reportedly are made in a flexible, closed loop system, which prevents impurities from contaminating the blends. According to the company, the blends have less batch-to-batch variation versus competitive or in-house blended products. Honeywell, Burdick & Jackson, Muskegon, MI.

[www.honeywell.com/burdickandjackson](http://www.honeywell.com/burdickandjackson)

Circle 137



### Analytical regulator

Airgas' Smart Indicating analytical regulator is designed with a Smart Indicating Purifier (SIP) connection built into the base, reducing the size and opportunities for leaks. According to the company, the purifier media changes color if a contaminant enters the gas stream. The purifier's quick-change base reportedly allows the cartridge to be replaced without interrupting gas flow. AirGas, Inc., Radnor, PA.

[www.airgas.com](http://www.airgas.com)

Circle 138

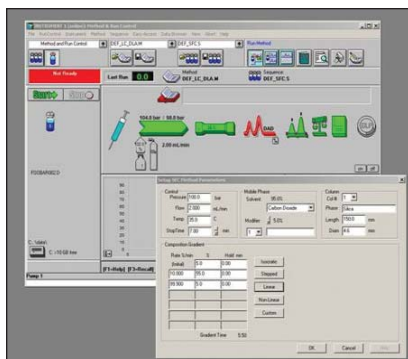


### Viscometer

Wyatt's ViscoStar viscometer is an on-line chromatography detector for determining specific and intrinsic viscosities. The instrument includes a software-based pulse-dampening correction algorithm and temperature control for temperatures ranging from 4 °C to 60 °C. The system is compatible with most HPLC systems and comes standard with 18-bit A/D resolution, Ethernet, USB communications, and an LCD-based user interface. Wyatt Technology Corporation, Santa Barbara, CA.

[www.wyatt.com](http://www.wyatt.com)

Circle 139



### SFC hardware

Mettler-Toledo's Berger SFC for Agilent ChemStation is designed to allow for Agilent LC and MSD ChemStation control of Berger SFC analytical products from within the Agilent software. According to the company, the SFC for Agilent ChemStation enhances flexibility and provides higher throughput with a minimal investment. Mettler-Toledo AutoChem, Inc., Columbia, MD.

[www.mt.com/autochem](http://www.mt.com/autochem)

Circle 140

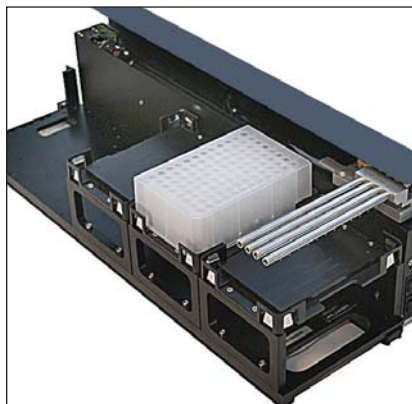


### Silicone septa

Lab Chrom Pack's UltraClean Pharma-Fix silicone-PTFE septa are designed for GC and HS analysis. The septa are laminated with PTFE in the sample contact area, and the rubber edge covering the vial rim is unlaminated. The septa have a temperature resistance from 60 °C to 200 °C and are offered in a 20-mm size. Lab Chrom Pack, Tullytown, PA.

[www.labchrompack.com](http://www.labchrompack.com)

Circle 141



### Reagent dispenser

Hamilton's high-speed reagent dispenser for the company's MICROLAB STAR pipetting workstation is designed to perform high-volume dispense steps required by assays and XNA purification methods without the cross-contamination risk associated with fixed-tip needles. The instrument reportedly can dispense up to four different reagents to a column of plates located on the left or right side of the dispenser. Hamilton Company, Reno, NV.

[www.hamiltonrobotics.com](http://www.hamiltonrobotics.com)

Circle 142



### LC columns

Eksigent's ChromXP 300- $\mu$ m i.d. LC columns are designed to deliver maximum performance on the company's ExpressLC-100 and -800 HPLC systems, and are compatible with all capillary LC instruments. The columns are offered in C4, C8, and C18 reversed phases, including a C8 and C18 embedded polar phase. The columns are offered in lengths of 30, 50, 100, and 150 mm. Eksigent Technologies, LLC, Livermore, CA.

[www.eksigent.com](http://www.eksigent.com)

Circle 143



### Automated solution preparation system

CHATA's CHEM+MIX PC-controlled system is designed to automate the preparation and pH adjustment of chemical solutions such as HPLC mobile phases. The system is designed for method development, R&D personnel, and others who work with small volumes. According to the company, the system offers precision mixing and consistency. The system reportedly provides GLP and GMP capabilities including audit trail and multilevel security access. CHATA Biosystems, Fort Collins, CO.

[www.chatasolutions.com](http://www.chatasolutions.com)

Circle 144



### Preparative SFC system

Thar's SFC Prep 70 II system is designed for the small-scale purification of both chiral and achiral compounds. The system's software modules include a stacked injection builder, reporting features, and an open-access option. The system reportedly has a dual-valve injection module and a fraction collector. Thar Technologies, Inc., Pittsburgh, PA.

[www.thartech.com](http://www.thartech.com)

Circle 145

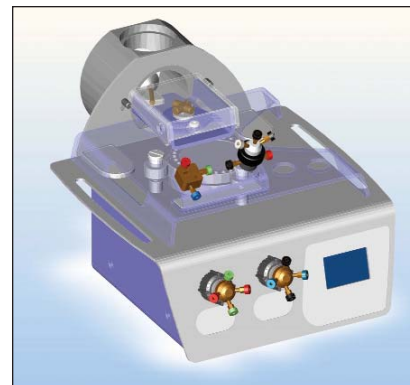


### Septa

Restek's precision-molded septa are designed for consistent, accurate fit. According to the company, the septa are preconditioned, ready to use, and offer excellent puncturability. The company offers several models for a variety of applications: BTO (400 °C maximum inlet temperature for GC-MS), Thermo-lite (340 °C maximum), and IceBlue (250 °C maximum). Restek Corporation, Bellefonte, PA.

[www.restek.com](http://www.restek.com)

Circle 146



### Sample preparation system

Protea's Explorer sample preparation system is designed to enhance and streamline the processing of biological samples for analysis by MS. The system performs in-line concentration, purification, and digestion of protein samples, in-line electroelution of gel samples, MWCO filtration and removal of SDS detergent from samples. Protea, Morgantown, WV.

[www.proteabio.com](http://www.proteabio.com)

Circle 147





### Cartridge chemical pump seal

Flowserve's GCX single mechanical cartridge seal is designed for ANSI and DIN pump services, where the pumps and seals are required to operate in multiple chemical environments without chemical compatibility change-outs. The seal features an alloy C-276 bellows, 316 stainless steel components, and flexible graphite foil secondary seals and is designed to withstand corrosion and harsh chemical conditions. Flow Solutions, Irving, TX.

[www.flowserve.com](http://www.flowserve.com)

Circle 148



### Mercury analyzer

Buck Scientific's model 410 mercury analyzer is designed for the analysis of trace levels of mercury in drinking, surface, and saline waters as well as domestic and industrial wastes. The analyzer reportedly achieves detection limits of 10 ppt/absolute mass 0.0025 mg with the 400-mm flowcell. According to the company, the analyzer can be used for EPA methods 245.1, 245.7, and 1631. Buck Scientific, East Norwalk, CT.

[www.bucksci.com](http://www.bucksci.com)

Circle 151



### GC-MS system

Shimadzu's QP-2010 Plus GC-MS system is designed for rapid analysis of difficult samples, the determination of trace components, and the characterization of complex organic mixtures. The system reportedly provides a 1.5–1090 m/z mass range as well as a 100–300° C ion source temperature range. Shimadzu Scientific Instruments, Inc., Columbia, MD.

[www.ssi.shimadzu.com](http://www.ssi.shimadzu.com)

Circle 149



### Sample concentrator

O.I. Analytical's model 4660 Eclipse purge-and-trap sample concentrator is designed for VOC analysis. According to the company, the concentrator offers automated pH sensing, a water management system for consistent water removal, rapid direct trap heating, a sparge overflow sensor that eliminates accidental system flooding, and a graphical user interface operated via touchscreen or a networked PC. O.I. Analytical, College Station, TX.

[www.oico.com](http://www.oico.com)

Circle 152

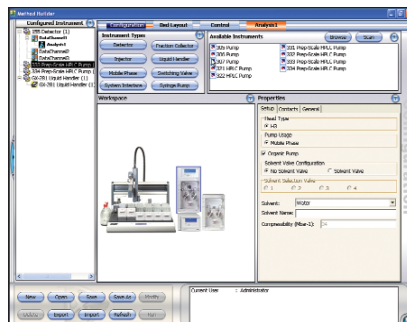


### Refurbished analytical equipment

GenTech Scientific sells and services new and refurbished analytical equipment. The company specializes in gas chromatographs, liquid chromatographs, and mass spectrometers from all major manufacturers, as well as accessories for those systems. The company's certified GC, LC and MS systems come with a one-year warranty. GenTech Scientific, Inc., Arcade, NY.

[www.gentechscientific.com](http://www.gentechscientific.com)

Circle 150



### Software package

Trilution LC software from Gilson features graphical gradient creation and adjustments, click-and-drag icon-based tasks, and graphical method optimization. According to the company, the software package provides fraction collection capabilities including conditional logic collection and the ability to add additional fraction collectors for increased bed capacity. Gilson, Inc., Middleton, WI.

[www.gilson.com](http://www.gilson.com)

Circle 153



### Interlocked vial-insert

J.G. Finneran's Interlocked Vial/Insert comprises a 300- $\mu$ L insert permanently interlocked into a variety of vials. According to the company, the vial and insert are fused together to eliminate insert movement, which could cause needle breakage. The design is available in both clear and amber for 2-mL vials, including screw thread and crimp styles. JG Finneran Associates, Vineland, NJ.

[www.jgfinneran.com](http://www.jgfinneran.com)

Circle 154



### Column hardware

Isolation Technologies' Dura-Cap FS capillary column hardware encapsulates a fused silica capillary in a PEEK housing. According to the company, the system eliminates bending, breaking, and bed disruption during the packing process or operation. The system incorporates an integrated endfitting and frit that reportedly provides a zero-dead-volume connection. Isolation Technologies, Hopedale, MA.

[www.iso-tech.com](http://www.iso-tech.com)

Circle 157



### LC-MS system

Varian's 500-MS LC Ion Trap LC-MS system is designed for the analysis of thermally labile compounds, including pharmaceutical products, drug metabolites, pesticides, and herbicides. According to the company, the system includes the company's MS Workstation software, HPLC instrumentation, and HPLC columns. The system's SelecTemp feature electronically controls atmospheric pressure ionization. Varian, Inc., Palo Alto, CA.

[www.varianinc.com](http://www.varianinc.com)

Circle 155



### Nanoflow LC system

Hitachi's NanoLC chromatography system is designed for research laboratories. The system reportedly can be configured for two-dimensional chromatography enabling complete online separations of complex protein samples. According to the company, the system provides gradient and retention time reproducibility at nanoflow rates (50 nL/min). Hitachi High Technologies America, Inc., Schaumburg, IL.

[www.hitachi-hta.com](http://www.hitachi-hta.com)

Circle 158

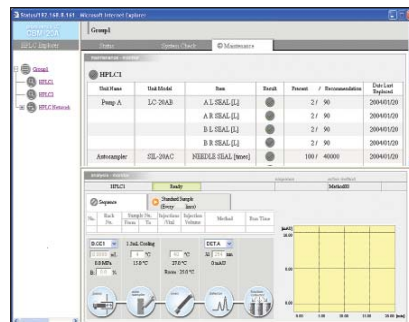


### HPLC system

Agilent's 1200 series HPLC system is designed with more than 60 instrument modules and can be configured for standard, nanoflow, capillary, narrow, prep-scale, and chip-based liquid chromatography. The system reportedly is compatible with the company's 1100 series and is available in a Rapid Resolution configuration featuring more than 70 new RRHT columns. Agilent Technologies, Inc., Palo Alto, CA.

[www.agilent.com/chem](http://www.agilent.com/chem)

Circle 156



### HPLC controllers

Shimadzu's network-compatible CBM HPLC controllers are designed to allow researchers to use their networks to control and monitor the company's Prominence HPLC system. According to the company, researchers can operate the controller from any computer with Microsoft Internet Explorer 6.0 or higher. Shimadzu Scientific Instruments, Inc., Columbia, MD.

[www.ssi.shimadzu.com](http://www.ssi.shimadzu.com)

Circle 159



### GC column

Astec's CHIRALDEX Beta-Bonded B-PM chemically bonded beta-permethylated chiral capillary GC phase is designed for the analysis of complex mixtures. According to the company, the column can be used to separate lactones, small underivatized acids, and underivatized alcohols including cyclic and aliphatic diols. Advanced Separation Technologies Inc., Whippany, NJ.

[www.astecusa.com](http://www.astecusa.com)

Circle 160



### Mircosampling vials

National Scientific's microsampling polypropylene vials are designed for protein and peptide analysis. The vials reportedly hold 300  $\mu$ L and use a 9-425 screw-thread cap. According to the company, the vials include a reservoir tip that enables extraction of samples ranging in volume from  $<5$   $\mu$ L to 450  $\mu$ L, a flat base, and a neck profile similar to that of a glass vial. The vial is available as a vial only and in kits that include a PTFE-silicone cap. National Scientific, Rockwood, TN.

[www.nationalscientific.com](http://www.nationalscientific.com)

Circle 163



### Generators

domnick hunter's Zero Air generators are designed to produce a continuous flow of clean, dry air with a residual methane content of less than 0.1 ppm. According to the company, an interchangeable top panel allows for the direct mounting of the company's hydrogen generator for GC—flame ionization, flame photometric, and nitrogen-phosphorus detection applications. Six models are available with a flow rate range of 1.0–20 L/min. domnick hunter, Inc., Charlotte, NC.

[www.domnickhunter.com](http://www.domnickhunter.com)

Circle 161



### GC column

SGE's forte BPX90 GC capillary column is designed for applications including separation of the *cis*, *trans*, and positional isomers of FAMES, perfumery, petrochemicals, pesticides, PCBs, and aromatics. The column reportedly contains a polar stationary phase with high thermal stability (280°C). According to the company, the column is also can be used for 2D-GC, in combination with nonpolar phases. SGE, Inc. Austin, TX.

[www.sge.com](http://www.sge.com)

Circle 164



### Pyrolysis system

DyChrom's model JCI-21 portable Curie point pyrolyzer is designed to perform pyrolysis GC–MS analysis. The system's needle, which fits any standard septum injector, reportedly eliminates the necessity of complicated coupling to a gas chromatograph. Polymer characterization is performed by placing the sample into the system and injecting through the septum of the gas chromatograph. DyChrom, Sunnyvale, CA.

[www.dychrom.com](http://www.dychrom.com)

Circle 162



### Evaporative light-scattering detector

The Gilson prepELS evaporative light scattering detector features a static splitting system that can accommodate flow rates as high as 75 mL/min. According to the company, the instrument can be used with sample masses as high as 5 mg without driving the signal off scale. The detector reportedly can detect low-nanogram analyte levels, and a filtering feature is designed to enable the removal of baseline noise without affecting peak height or shape. Gilson, Inc., Middleton, WI.

[www.gilson.com](http://www.gilson.com)

Circle 165





### Ionization source

Syagen's atmospheric pressure photoionization source for LC-MS instruments is designed to complement atmospheric pressure chemical ionization (APCI) and ESI. According to the company, the source expands the range and classes of compounds that can be analyzed, including nonpolar molecules that are not easily ionized by ESI or APCI, and exhibits less ion suppression than these other sources. Syagen, Tustin, CA.

[www.syagen.com](http://www.syagen.com)

Circle 166



### Dry vacuum pump

The model XDS35i dry vacuum pump from BOC Edwards is designed to provide a vacuum completely free of lubricants. The bearings are isolated from the vacuum environment by a bearing shield. There are no bearings, grease, or oil under the vacuum. According to the company, the instrument has a constant pumping speed of 35 m<sup>3</sup>/h or 21 cfm on either 50- or 60-Hz frequencies. BOC Edwards, Wilmington, MA.

[www.bocedwards.com](http://www.bocedwards.com)

Circle 169



### SPE products

Alltech's solid-phase extraction products are designed to clean up or concentrate analytes of interest before HPLC or GC analysis. The company manufactures a variety of SPE phases, including unique ion-exchange resins. The materials are available in several disposable devices, including columns, cartridges, and 96-well plates. Grace Davison Discovery Sciences, Deerfield, IL.

[www.discoverysciences.com](http://www.discoverysciences.com)

Circle 167



### HPLC column

Dionex's ProPac HIC-10 silica-based high-capacity HPLC column is designed for the separation of proteins and peptides by hydrophobic interaction chromatography. According to the company, the column has been used for applications ranging from the separation of serum proteins, human skeletal muscle total protein, and snake venom proteins to pancreatin and monoclonal antibodies. The column's stationary phase is based on 5- $\mu$ m ultrahigh-purity spherical silica gel particles, with 300-Å pores. Dionex Corporation, Sunnyvale, CA.

[www.dionex.com](http://www.dionex.com)

Circle 170

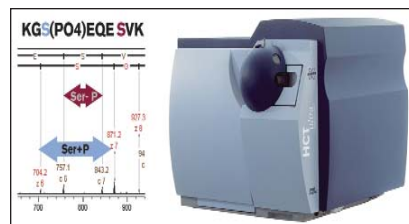


### Chromatography refrigerators

Marvel's chromatography refrigerators feature access ports and precise temperature control. The refrigerators are available in under-the-counter and larger one- or two-door models. Model 6CHR features 173 L of space, a clear tempered glass door, a single-access port, and a microprocessor-based temperature control system. Models 21CHR and 42CHR provide 595 L and 1218 L of chamber space, respectively, and feature vapor-proof duplex outlets. Marvel Scientific, Richmond, IN.

[www.marvelscientific.com](http://www.marvelscientific.com)

Circle 168



### Ion-trap MS system

Bruker Daltonics' PTM discovery system is designed to incorporate electron transfer dissociation (ETD) in the company's HCTultra ion-trap mass spectrometer. According to the company, the system's ETD fragmentation breaks the peptide backbone nonergodically and preserves functionally important post-translational modifications (PTMs). The system's PTM-scan reportedly can detect PTMs by screening for specific neutral losses during collision-induced dissociation, and then triggering automatic, data-dependent ETD experiments. Bruker Daltonics Inc., Billerica, MA.

[www.bruker-biosciences.com](http://www.bruker-biosciences.com)

Circle 171