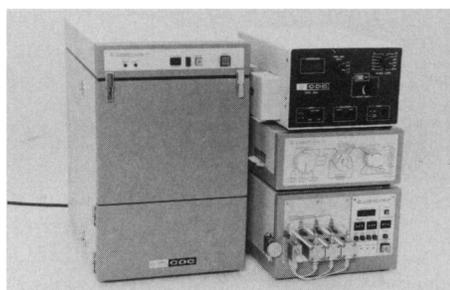


Products & Materials

The 41st Pittsburgh Conference and Exposition on Analytical Chemistry and Applied Spectroscopy will be held from 5 to 8 March at the Jacob K. Javits Convention Center in New York City. These are some of the new products that will be introduced there.

Centrifugal-Partition Chromatography

The Preparative/Analytical High-Performance Centrifugal-Partition Chromatography (HPCPC) System, model LLN-9, features a new liquid chromatographic technique that makes use of liquid-liquid, counter-current distribution to fractionate complex mixtures of chemical substances. HPCPC can be used to separate and purify a



broad range of chemicals and offers advantages for the isolation of polar substances and biological materials. With HPCPC, stationary-phase solvents are retained in the column by centrifugal force. Consequently, high mobile-phase flow rates can be used without appreciable loss of resolution. Denaturation and decomposition of sample components, often encountered with conventional packed columns, are virtually nonexistent in the mild operating environment. Sanki Laboratories. Circle 562.

Booth 3110

Automated DNA Sequencer

The Automated Laser Fluorescent (A.L.F.) DNA Sequencer is designed for fast, easy, and reliable sequencing and evaluation of up to 8 kilobases per day. With just

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

one fluorescently labeled primer, samples are easily prepared by classical Sanger methods with a convenient sequencing kit. In less than an hour, samples can be loaded onto the electrophoresis gel without extra quantitation or precipitation steps. The system has no moving parts. Sample bands are detected with a fixed laser beam that penetrates the entire width of the gel. Pharmacia LKB Biotechnology. Circle 565.

Booth 1303

Cell Adhesion Protein

AdheraCell is a recombinant bioadhesive protein that maintains the solid surface support necessary for optimal growth of anchorage-dependent cells. The protein binds quickly and strongly both to plastic surfaces and to anchorage-dependent cells, providing immediate, ideal growth conditions for cell culture. It can be used to culture many types of cells or to fix cells onto slides. Genex. Circle 569.

Booth 4964

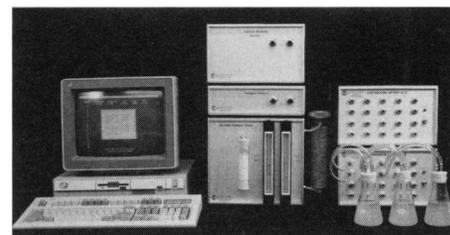
Variable-Intensity Transilluminators

The Spectroline variable-intensity ultraviolet (UV) transilluminators are designed to solve the problems of photoniccking, photobleaching, and photodimerization that plague DNA researchers. The Spectroline TV-Series features intensity control that enables the operator to prevent sample damage from prolonged exposure to strong UV light during its preparation. The UV intensity can be lowered to 20%, to allow preparation time of up to 30 min with little or no detectable damage, then raised to the level desired for sensitive analysis. The unit's specular aluminum reflectors and high-intensity tubes allow it to detect trace amounts of DNA, as little as 1 to 2 ng. Spectronics Corp. Circle 567.

Booth 5031

Bacteria and Fungus Detector

The 20-channel O₂/CO₂ Bio-Respirometer detects bacterial or fungal growth by measuring oxygen consumption and carbon dioxide production resulting from biological activity. Its sensitivity is 0.2 μl of oxygen per hour. Its operating principle is similar to the Warburg apparatus, but the precision of the gas sensors and computer automation mean measurements are much easier to perform and are about ten times as accurate. Up



to 20 chambers, which can vary from 50 ml to 20 liters, can be monitored at the same time with periodic printouts and disk storage on an IBM PC/AT-compatible computer. Columbus Instruments. Circle 568.

Booth 5568

Capillary Electrophoresis Systems

Two new capillary electrophoresis (CE) systems feature femtomole detection sensitivity, multiple sample injection modes, and a choice of automated or manual operation. Both units are suitable for conventional freeze-zone high-performance CE of peptides, proteins, polynucleotides, and other samples, as well as for surface-modified capillaries and micellar and electrofocusing techniques. The automated system includes a 40-position autosampler; computer-based control over all separation parameters including buffer switching, temperature, and voltage; and complete data management. The manual system includes a syringe-loading injector. Isco. Circle 570.

Booths SR600, 4153-4154

Single-Button ICP-MS Control

The SCIEX Elan 5000 Inductively Coupled Plasma Mass Spectrometer (ICP-MS) features single-button control of the vacuum system and new software for a wide range of analytical applications. The Elan 5000 has a built-in radio frequency generator incorporating a free-running 40-MHz design specially engineered for ICP-MS. Perkin-Elmer. Circle 571.

Booths SR320, SR310, 3068

DISCUS Cell for IR/FTIR Gas Analysis

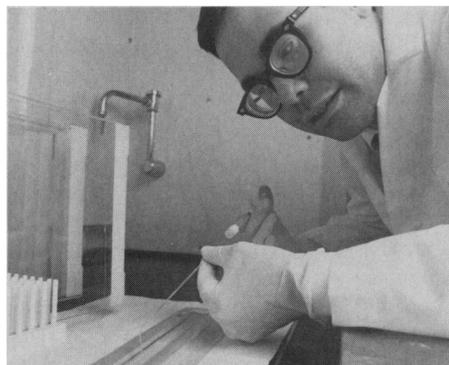
The Decentered Infrared Sensor Circlet for Uniform Sampling (DISCUS) Cell is a long-path sample cell for qualitative and quantitative infrared/Fourier transform infrared spectroscopy analysis of gases and vapors. The compact toroid (6-inch diameter) uses refractive optical decentering and

comprises a multipass folded beam with pathlengths of up to 9.6 m. The straight-through optical design requires no external transfer optics. The cell is suitable for on-line and laboratory study of the work space environment, ambient air, fixed gases, chemical process streams, and stack gases. Minarad Scientific. Circle 563.

Booth 2257

Dedicated 2-D Electrophoresis System

The Investigator 2-D (two-dimensional) Electrophoresis system is a high-resolution protein separation system with large-format gels. The larger gel format allows for increased dispersion of proteins, giving researchers up to four times as much information to analyze as standard gels. The system



offers a programmable power supply that allows the researcher to program and retain all pertinent parameters in memory. The system's patented threaded-tube gel one-dimensional casting system provides consistent gel lengths and eliminates the stretching that can cause inconsistencies from gel to gel. Millipore. Circle 564.

Booth 5432

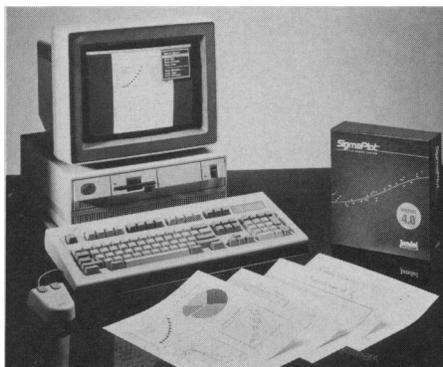
HPLC Pump

Model HPXL is a fully programmable high-performance liquid chromatography (HPLC) pump capable of gradient operation without external controllers. It can be used as an isocratic pump or as a master or slave pump in an automated HPLC system. Interchangeable analytical and preparative pump heads maintain performance over designated flow and pressure ranges up to 200 ml/min. Titanium pump heads with a special piston-washing chamber provide an iron-free, biocompatible solvent delivery path for protein separations. Rainin Instrument Co. Circle 437.

Booths 3335, 3336

Scientific Graphing Software

SigmaPlot 4.0 is a new version of a popular graphing product for IBM-compatible personal computers designed to create publication-quality graphs for scientific and engineering research. An earlier version is



currently in use by more than 15,000 scientists around the world and has been used to produce graphs and plots published in more than 400 journals. The program offers major new additions including a pull-down menu interface, more graph types, improved page layout, greater worksheet capabilities, full nonlinear curve fitting, equation plotting, and improved output device support. Jandel Scientific. Circle 434.

Booth 2344

HPLC System

The AC/LC Semi-Prep/Prep Biocompatible HPLC (high-performance liquid chromatography) system is designed for a wide range of applications. Biocompatible components include titanium pump heads, and graphite-impregnated Teflon gradient formers, injection valves, and seals; no stainless steel is included. The unit provides accurate flow rates from 3 to 1000 ml at pressures up to 3000 psi with powerful interactive process control capability. It can accommodate columns from 10 to 100 mm in diameter and provides preprogrammed control for all functions. IBF Biotechnics. Circle 435.

Booths 2273, 2274

Preparative Column Packer

Chromatographers can pack their own preparative columns on site in 15 min using the new Mini N-Pack column packer. The Mini N-Pack accepts columns of 25 to 75 mm diameter and packs bed heights to 300 mm. The system packs to 2000 psi. Dual

axial compression technology packs normal-phase silica with reproducibility and high efficiency. The packer also performs multiple column packing for laboratories with several chromatographs. The system is hydraulic and does not require electrical service. Amicon Division, W.R. Grace & Co. Circle 572.

Booth 6043

Automated Liquid Transfers

The Microlab AT Plus performs rapid, reliable liquid transfers in a wide variety of common test formats. A high-speed robotic arm features up to 12 positive-displacement, liquid level-detecting, disposable tips. The instrument can transfer more than 1200 samples per hour from tubes to a user-defined format, including 12 by 75 mm test tubes, bead plates, microtubes, and microwell plates. Hamilton. Circle 573.

Booth 1535

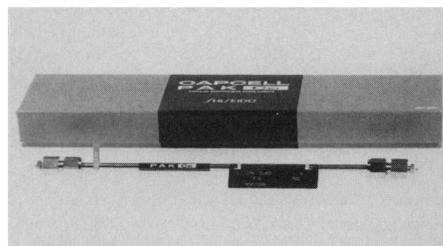
Molecular Microanalysis System

The IR μ s Molecular Microanalysis system, a new microbeam instrument that integrates visible microscopy with infrared spectroscopy, allows scientists to obtain a molecular and chemical profile of selected biological tissues. IR μ s is controlled by a mouse-driven software package that can perform quantitative microanalysis and advanced mapping applications. Spectra-Tech. Circle 566.

Booth SR590

Alkaline-Resistant HPLC Columns

CAPCELL PAK, a new series of silica-based reversed-phase high-performance liquid chromatography (HPLC) columns, are alkaline-resistant, with an operating pH range of 2 to 10. They are available in



bonded phases of C1, C8, C18, cyano, and phenyl. They come in particle sizes of 3 μ m and 5 μ m with porosities of 120 \AA and 300 \AA . Dychrom. Circle 574.

Booth 3681

Science

Products & Materials

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