Products & Materials

The 39th Pittsburgh Conference and Exposition on Analytical Chemistry and Applied Spectroscopy will be held from 22 to 26 February 1988 at the Rivergate Exhibition Center and the New Orleans Convention Center in New Orleans, Louisiana.

Centrifugal Partition Chromatography System

Model LLN-5 fractionates complex mixtures of chemical substances by means of liquid-liquid partition countercurrent distribution. Because a solid, stationary phase support is not used, highly retentive sample components are not irreversibly retained. Centrifugal force keeps the stationary phase solvents in the column and thus allows high flow rates for the mobile phase with little loss of resolution. A mild operating environment makes denaturation and decomposition of sample components rare. Sanki Laboratories. Circle 475. 
Booths 527, 529

Spectroscopy Software

SPECTROCHART-PC is a software package that automates ultraviolet-visible, infrared, fluorescence, reflectance, atomic emission, and atomic absorption spectroscopy. The program records and analyzes volatile signals from the recorder output of any spectrometer. A method file automatically controls data acquisition and all steps of the analysis, according to the user's protocol. ASCII data files may also be analyzed. As many as 100 standard and unknown samples may be analyzed automatically in any sequence. A spectrum may be recorded as the instrument scans. A scrolling strip chart on either the monitor or the printer documents the results graphically and numerically. Graphic routines can plot multiple samples, kinetic curves, or spectra in windows as large as 640 by 200 pixels, with position, size, background color, x and y scales, and labels selectable by the user. $595. Interactive Microwave. Circle 491. 
Booths 2665

LC Simulation Software

DryLab S and DryLab B are software programs that simulate high-pressure liquid chromatographic operations. DryLab S provides solvent optimization by means of the "solvent triangle" method. Seven initial runs suffice to provide a complete simulation of retention behavior. Mobile phases with water and as many as three organic modifiers can be accommodated. DryLab B simulates gradient separations of biopolymers such as peptides, proteins, and nucleic acids. LC Resources. Circle 493. 
Booths 3536, 3538

Integrator

The PC Integrator is a dual-channel chromatography data system that allows the user to acquire, store, and process data and produce a final report. Because raw data may be stored and accessed, the user can reintegrate them under different conditions. Software programs may be executed at the same time that the PC Integrator is collecting data from the chromatograph. The user interacts with the software through menus. The system comprises a computer, a 640-kilobyte random-access memory, a graphics monitor, two floppy disk drives, an analog-to-digital interface, and software. $3990. Nelson Analytical. Circle 494. 
Booths 3248–3255

Data-Acquisition System

The IDAS can provide two-way communication between almost any analytical instrument and a DEC VAX, HP1000, or IBM S/370 minicomputer. Instruments that contain a programmable computer or are attached to an IBM PC workstation can be connected directly to IDAS with an RS-232C-compatible cable. Otherwise, a programmable instrument coupler must intercede between the instrument and IDAS. The user can program IDAS to prompt the instrument for data; to collect, parse, and format the data; and to write the results onto the disk. Beckman Instruments, Laboratory Automation Operation. Circle 482. 
Booths 101–109, 200–209, 300–308

HPLC Columns

The Chemosorb Ultra High C8 column is a column for high-performance liquid chromatography that has packings with 15% carbon coverage for extra efficiency.

Spectrophotometer Cell

The SL-3 is a sealed liquid cell designed to provide reproducible quantitative analyses in infrared and Fourier-transform infrared spectroscopy. Different path lengths and window materials are available. International Crystal Laboratories. Circle 481. 
Booth 1172

Supercritical Fluid Chromatograph

The SFC/200R is an integrated microprocessor-controlled dedicated supercritical fluid chromatography system. Its capabilities include programming density and pressure for supercritical fluid mobile phases, sample automation, multiple detection, and the ability to use several types of columns. In addition to a chromatograph, the system includes a key pad, a monitor, software, and

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Gas Chromatograph

The Model 540 gas chromatograph can be configured as either a single- or a dual-detector instrument. Light-emitting diode displays show system parameters. The microprocessor-controlled model 540 also has five-level temperature programming, ten-method storage, protected memory, and self-diagnostics. The large oven can hold megabore columns and features rapid heating and cooling. Tracor Instruments Austin. Circle 495.
Booths 2856–2860

Atomic Absorption Spectrometers

The SpectrAA-300/400 Zeeman are a series of atomic absorption spectrometers. Each model corrects background with the Zeeman effect, facilitated by a transverse ac magnet around the Zeeman graphite tube atomizer. The accuracy of the correction is enhanced by a pulsing frequency that provides 120 measurements per second at 60 Hz, a magnetic field maintained at 0.8 T, and a polynomial interpolation routine that computes background magnitude. Each spectrometer is controlled by a dedicated IBM PS/2 model 30. From $56,000. Varian Instrument Group. Circle 486.
Booth 3778

Chemical Word-Processing Software

ChemText 1.2 is a chemical text and image processor. Molecules may be constructed from templates or drawn with a mouse and then merged with text, tables, schemes, figures, and graphs. A graphics preview function allows the user to see what the document will look like when printed. Different fonts may be used in the same document; the fonts include mathematical symbols, the Greek and Cyrillic alphabets, European accents and characters, script letters, and a nonproportional font for tables and amino acid sequences. A spelling checker can check French, German, or American or British English words; the user may add other words to the dictionary. The user can create multilevel formulas and equations. ChemText 1.2 operates on the IBM PC family and 100% compatible computers with a graphics interface card, a mouse, and a hard disk. Molecular Design. Circle 477.
Booths 3165–3169 (odd)
**Diffractometer**

The MPD MultiPurpose Diffractometer can be reconfigured in minutes. The instrument can operate either horizontally or vertically and can accommodate accessories for powder diffraction, stress, high and low temperature, transmission, and fiber analyses. The user can switch between spot focus and line focus without taking off the x-ray tube shield, repositioning cooling water lines, or realigning the optics. Detectors and sample-presentation accessories may be interchanged by the user. The goniometer platform is stabilized by machined pinned surfaces, dovetails, and shafts with keyways and detents. Philips Electronic Instruments. Circle 479.

Booths 1532–1543

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**Atomic Absorption Spectrometer**

Model 2100 is a fully automated atomic absorption spectrometer. Its double-beam optical system has a single path to increase energy throughput and reduce noise; the burner system automatically moves the flame out of the light path during nonmeasurement periods so that the reference beam may use the path. An Epson computer controls the model 2100 and its accessories; it has a special keyboard that allows the user to issue commands with a single keystroke. Perkin-Elmer. Circle 480.

**Booth 4025**

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**Automated Solid-Phase Sample Preparation**

The Auto Spe-ed processes samples for solid-phase extraction after only a few keystroke commands; the user need not intervene again. Fifty samples may be processed at one time with 85 to 100% recoveries and 2 to 3% coefficients of variation. The Auto Spe-ed requires only 5% of the quantity of hazardous and flammable solvents as manual methods do. Samples are processed through disposable cassettes packed with a variety of selective sorbents. The instrument automatically conditions the cassettes, extracts sample volumes from 200 µl to 50 ml, removes interferences, and collects multiple sample eluate fractions as large as 10 ml. Different classes of compounds of varying polarities may be extracted from aqueous or nonaqueous solutions. Applied Separations. Circle 496.

**Booths 3820, 3822**

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**Ultraviolet-Visible Spectrophotometer**

The Ultrospec Plus is an ultraviolet-visible spectrophotometer with four built-in programs for collecting and analyzing measurement data. The Multiple Wavelength program allows ten wavelengths to be measured and calculates two-point and three-point net results. An absorbance ratio feature can check DNA and RNA samples for purity. The Kinetics program determines enzyme activities and plots and analyzes graphs. Substrate concentrations can also be calculated. The Wavelength Scanning program plots first-, second-, and fourth-order derivative graphs for absorbance or transmission spectra. Peak tables can be included in the results. The Standard Curve program allows the user to apply any of three curve-fitting methods to nine standard concentrations, and the resulting data may be manipulated and stored. The Ultrospec Plus has a built-in dot-matrix printer. Pharmacia LKB Biotechnology. Circle 492.

Booths 223–235 (odd), 322–334 (even)

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Supercritical Fluid Chromatograph

The model 602 is a supercritical fluid chromatograph with a pulseless 165-ml-capacity syringe pump. It can accept flame ionization, nitrogen-phosphorus, and ultra-violet detectors. The compact oven heats at 50°C per minute and cools at 70°C per minute; the symmetry of the oven’s left and right halves allows detectors and injectors to be installed on both sides. Interfaces are available for performing hyphenated techniques. The user can control pressure, density, and temperature. The model 602 accommodates large-bore columns for packed-column supercritical fluid chromatography. Lee Scientific. Circle 487.

Booths 2172–2178 (even)

FTIR Spectrometer

A compact Fourier-transform infrared spectrometer is available. Because it is portable, can be operated in any orientation, and requires no water, air, or cryogenic cooling, it is suited for operation in harsh environments. The optical bench includes a 20- by 23- by 15-cm sample compartment that will accommodate most standard sample holders. Any foreign or domestic line voltage can power the bench. The spectral signal-to-noise ratio is greater than 1000:1 at 2000 cm⁻¹, and baseline tilts are less than 0.5% between 400 and 4400 cm⁻¹. The system includes the spectrometer, software, and cards for mathematics and an IBM PC-compatible interface; a computer and a plotter are extra. $19,000. MIDAC. Circle 490.

Booth 2673

ChemStation-Computer Communications

InfoLink is a software program that allows files to be transferred between the Hewlett-Packard 310 and IBM AT-compatible computers. For example, chromatography data collected on the ChemStation can be analyzed on a computer. Transfers can be made between HP ASCII and IBM ASCII and between HP Data and IBM Binary at rates between 300 and 19,200 baud. InfoMetrix. Circle 498.

Booth 1444

Data Collection Program

SMARTLOG is a software program for collecting, reviewing, manipulating, and reporting analytical data. It can automatically collect data from many analytical instruments. Built-in quality control routines determine spike recovery and generate charts. Linear regression routines automatically calibrate instrument output either by direct comparison to standards or by the method of standard additions. Users can define the report formats. An optional accessory program produces the deliverable data package required by the Inorganic Contract Laboratory Program. Telecation Associates. Circle 488.

Booth 4207

Literature


Booths 262–267


Booths 1449–1455 (odd), 1548–1554 (even)


Booths 2932, 2934

Introducing pH By PC is a brochure featuring a hardware-software system for collecting and storing pH and ion-selective electrode information. Computer Chemistry. Circle 503.

Booth 2669