Foot-Operated Microscope Focuser

The Motorfocus is a motorized device for smooth and precise focusing of stereomicroscopes. Activated by the foot of the user, the Motorfocus has adjustable preset controls that reproduce fine and coarse focusing with a two-speed drive. Light foot pressure starts the slow drive for smooth fine focusing at higher magnifications, and greater foot pressure shifts the device into the high drive for rapid focusing to distant object planes. Even at high drive speeds there is no overshoot or backlash; movement stops the instant the foot is removed. Manual focusing is also possible without disconnection of the Motorfocus. Goodfellow. Circle 568.

Thermal Microscope Stage

The TS-4ER thermal stage maintains temperatures as high as 100°C. It is designed for crystallography and other applications in which the control of specimen temperature is critical. The TS-4ER fits onto the mechanical stage of most microscopes so that it can be moved with the regular mechanical stage controls. A hole in the thermal stage admits transmitted light. Temperature is adjusted with controls on the front panel of the stage, and a digital display shows a continuous readout of stage temperature. The TS-4ER is accurate to 0.1°C. It operates with 110 or 220 volts alternating current and a trickle of running water. A needle microprobe included with the stage allows it to be used as an independent thermometer. Sensortek. Circle 588.

## Calculator Software for Personal Computers

SolveIT is a software package that allows a personal computer with MS-DOS to function as a reverse Polish notation scientific calculator. The user can create a software library of customized programmable calculators, each with up to 40 functions. The number of steps in a program is limited only

by the size of the personal computer's memory, and 200 programs may reside in memory simultaneously. SolveIT's built-in functions include square, square root, power, xth root, 10^x, $\log_{10}$, sin, cos, tan, sinh, cosh, tanh, permutation, combination, truncation, rounding, polar-rectangular, rectangular-polar, random number, quadrant, degrees-radian, radians-degrees, absolute value, factorial, percent, percent difference, e, and π. Also, the user may define functions, which then may be used in programming. SolveIT compiles these user-defined functions so that they run faster. Functions may be sketched on the screen or printed. Programs, registers, and memories may also be printed. Structured Scientific Software. Circle 582.

Southern Genotyping Procedure System

Probe Tech 1 is a self-contained, microprocessor-controlled work station that performs electrophoresis, depurination, denaturation, and transfer of human DNA. By concentrating the electric field applied to the
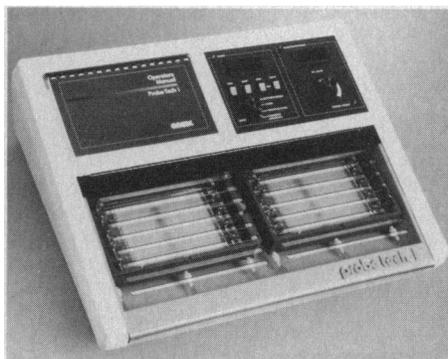
gel and optimizing the running buffer, the work station reduces the duration of electrophoresis to about 2 hours. In-cartridge conditioning and vacuum-assisted transfer moves the DNA from gel to membrane in two additional hours. Probe Tech 1 processes one or two gels of 11 lanes each. It is sensitive enough to detect DNA in fragments of 100 to 25,000 base pairs. Gels need only be handled twice—once when loading and once when removing them after transfer. Oncor. Circle 584.

Automatic Preparative Gas Chromatograph

The PSGC-10/40 separates, isolates, and purifies chemicals and is well suited for the resolution of azeotropes, structural isomers, and materials with similar boiling points. It is available either as a manually operated

system or as a fully automated system. It includes features such as thermal conductivity detection, five collection traps and a waste trap, independent oven and vaporizer temperatures to 300°C, and safety alarms. The PSGC-10/40 accepts up to eight 1 cm by 1 m columns or four 4 cm by 1 m columns. A sample is injected into a vaporizer and mixed with a heated carrier gas. The sample-gas mixture then passes to the gas chromatography column, where sample components are separated. Separated fractions pass through the thermal conductivity detector to the appropriate condenser-collection trap. Varex Corporation. Circle 587.

Fluid Surface Tensiometer

The SensaDyne 6000 is a fluid surface tensiometer with a computer interface for linking with IBM PC's and compatibles. Measurements are made with probes immersed directly in the fluid, by means of a constant volumetric flow system. The operator is able to choose and precisely control the gas/fluid interface development time. With the computer, accurate, reproducible measurements may be made in spite of surface contamination or operator inexperience. Also, the computer hookup allows data to be displayed, printed, stored, and graphed with menu-driven software supplied with the instrument. The monitor displays fluid surface tension, fluid temperature, time, and bubble frequency. Tensiometer calibration curves are automatically set with a computer calibration program that prompts the operator through a calibration and numerical keyboard entry routine. Chem-Dyne Research Corporation. Circle 586.

Desktop Analysis Software

Parameter Manager is a computer program that aids in collection, storage, and analysis of data based on time, date, or sample. No programming or macros are required of the user. The software's functions include trend plots, strip charts, data compression charts, parametric plots, histograms, forecast charts, statistical tables, correlation tables, and high-low charts. Data may be entered from the keyboard or as text files from other computers, including IBM PC's and compatibles. The Parameter Manager requires a Macintosh Plus or an enhanced Macintosh with 512 kilobytes of random access memory, an 800-kilobyte internal disk drive, and a second disk drive. Structural Measurement Systems. Circle 606.

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