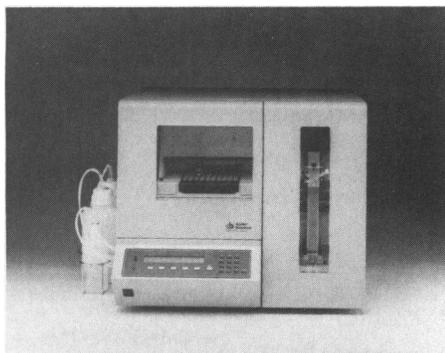


### Biomolecular Purification

The model 230A HPEC System is a micropreparative instrument for the separation and purification of proteins, DNA, and synthetic oligonucleotides. Based on gel electrophoresis, the system separates, visualizes, quantitates, and recovers mixtures of



biological macromolecules. As the sample elutes from the tube gel, a continuous flow of elution buffer carries the separated sample components through an on-line detector and into an integral fraction collector. Standard electrophoresis protocols can be adapted to the tube gel format of the system. The temperature-controlled gel compartment accepts columns of several diameters and lengths, and the programmable power supply can operate in several modes. Applied Biosystems, Foster City Biosystems Division. Circle 536.

### Scientific Calculator

The HP-42S RPN is a scientific calculator with reverse Polish notation. Complex numbers and vectors can be calculated or incorporated in computations. A matrix editor prompts for inputs, allows computations to be done in each matrix element, and allows complex numbers to be matrix elements. The matrix editor can solve simultaneous equations. The calculator also incorporates an equation solver that prompts for variables. Programs for HP-41C/CV calculators will execute properly on the HP-42S RPN.

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.

The user can assign programs, variables, and built-in functions to the keys in the top row for fast access. The HP-42S RPN features a two-line liquid-crystal display and 8 kilobytes of random-access memory. An optional infrared printer that links to the calculator by an infrared-light beam is available. \$120. Hewlett-Packard. Circle 555.

### Reaction Columns with Immobilized Enzymes

Mobicol Compact Reaction Columns contain immobilized enzymes and can be spun in table centrifuges. Substrate solutions with volumes of 10 to 30  $\mu$ l can be enzyme treated in the columns. First, the column is spun dry. Then the substrate solution is pipetted into the column, left for a few seconds, and then spun out. After treatment, the substrate solution has the same volume as before. The column retains its enzymatic activity unchanged by the treatment of the substrate solution. If the columns are washed with 10 ml of buffer and stored at 4°C, they remain active for months. An adapter for syringes allows the columns to be installed on-line. Mobitec (West Germany). Circle 552.

### Precast Electrophoresis Gels

Precast 16 cm by 18 cm gradient gels are available. These linear density gradient polyacrylamide gels are individually cast. A range of polyacrylamide gradient and single concentration formulations are available for high, medium, and low molecular weight applications. A survey gel is available for applications in which molecules of a wide range of weights must be separated. The gels come in thicknesses of 0.75 or 1.5 mm in either denaturing or nondenaturing formulations. The gels are individually packaged and have a shelf life of 4 months. Jule, Biotechnology Division. Circle 551.

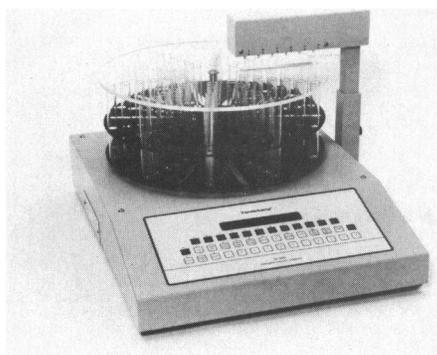
### Digital Camera

The EDC-1000 digital camera captures images without a frame grabber. With a computer-controlled display image sensor, the camera digitizes a scene into a 192 pixel by 165 pixel image. A computer, driven by menu commands, controls the exposure and frame-scanning times between 50 ms and 2 s. The camera comes with a lens, a 1.8-m-long cable, a computer interface card, software on a 5.25-inch diskette, and a manual. To operate, the camera requires an IBM PC-family, PS/2 model 25 or 30, or compatible

computer with a floppy disk drive, 256 kilobytes of random-access memory, and a free expansion slot for a half-sized card. \$400. Electrim. Circle 553.

### Automated Fraction Collector

The Vanderkamp VK3000 can collect samples at intervals of 3 min to 16 hours. Its microprocessor can be programmed for as many as ten collections over as long as 160 hours. Independent valve calibration allows each valve's delivery time to be set separately



for collecting precise amounts. As many as 12 samples may be collected simultaneously. Each time a sample is taken, the time, date, and volume are printed for test documentation. During collection, the keyboard display indicates the time remaining before the next sample will be taken. The operator can check each of the system's operations manually. Automatic cleaning of tubing and valves is controlled by a single key. The keyboard can be locked to prevent interference with the collection program. VanKel Industries. Circle 541.

### Literature

*Supercomputing on the 3090 with Vector Facility* is a brochure about applications for a supercomputer in scientific research, development, and education. IBM, Scientific and Technical Computing. Circle 562.

The 140-page catalog *NIH Repository of Human DNA Probes and Libraries* lists the probes, cloned genes, and genomic libraries in a genetic repository. American Type Culture Collection. Circle 563.

The *Nalgene Product News* introduces a line of square bottles, a heavy-duty bottle, and a desiccator cabinet. Nalge. Circle 564.

*Droplets, Microliter Samples* is a catalog of electrodes, probes, and oxygen meters. Microelectrodes. Circle 576.

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## Products & Materials

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