Spectrophotometer

The Cary 210 operates in the ultraviolet and visible portions of the spectrum. It has a patented, double-pass monochromator which maximizes resolution and minimizes stray light. The Cary 210's absorbance range extends from -0.6000 to 4.0000 with four decimal places. Ten scan speeds are available. Absorbance may be read in eight ranges from 0.01-Abs full scale to 2 Abs. The sampling period may be set or extended. Operator selects single- or double-beam modes as well. Varian Associates. Circle 796.

Spectrofluorometer

The Ratio II instrument can obtain the percent transmittance of a solution in addition to its fluorescent properties. It compensates for the inherent instability and decreasing output of xenon lamps to electronically divide the sample output by the output of the reference photomultiplier. This real-time compensation is suited to analyses of short-lived phosphorescence and fast kinetic reactions. Six scan rates are available and there is an Autoranging feature to select the proper scale for a given sample. American Instrument. Circle 806.

Electrophoresis Chamber

Model VQS uses silicone rubber sealing gaskets and single-action rapid clamps to mount electrophoresis plates without sealing grease, removable spacers, or pinch clamps. The unit employs Lucite electrolyte chambers and glass electrophoresis plates. The electrophoresis path-length is 13 centimeters. Two-dimensional electrophoresis is easily set up with optional gel plates that have beveled tops. Electrodes are platinum; stainless steel and brass are used for hardware. Atlantis Scientific. Circle 807.

Digital Electrometer

Because of its metal oxide semiconductor field-effect transistors (MOSFET), model 642 can measure currents as small as 10^-17 ampere. As little as 0.005 percent of an input signal may be resolved. Input gain is fixed over a range of 10^4 to 1. Model 642 is suited for measurements of voltage, current, or charge. Voltage may be measured from 10 microvolts to 10 volts with 10^6 ohms input resistance. Current measurements from 10^-12 to 10^-7 amperes full scale can be made with 4 1/2-digit resolution. Keithley Instruments. Circle 808.

Laboratory Freezer

Model PR120-17 is used for medical research, biological storage, preserving tissue, plasma, blood cells, and microbiology. The cabinet is made of steel with a counterbalanced lid. An indicating temperature control provides an adjustable temperature range from -18°C to -85°C. The cabinet has an air-cooled condenser; no liquid is required. Chamber dimensions are 69 by 20 by 21 inches high. Outside dimensions are 79 by 35 1/2 by 50 inches high. Model PR120-17 is also available with a recording thermometer and a buzzer alarm. So-Low Environmental Equipment. Circle 812.

Reversed-Phase Thin-Layer Plates

Microslides, 1 by 3 inches, employ a silica gel in which the surface hydroxyl units are reacted with octadecylsilane (C_{18}) to form layers 200 micrometers thick. Interaction of the sample hydrocarbons with octadecyl groups in this layer is the basis of separations occurring on these plates. This silica gel accommodates high loads and rapid flow. The new plates also include an inorganic fluorescence indicator for visualization under ultraviolet excitation at 254 nanometers. Whatman. Circle 810.

Microbial Plating and Counting

The Spiral System eliminates serial dilution and replicate plating. The heart of the system is the dispenser that distributes the liquid sample on the surface of a rotating agar plate. The dispensing arm moves from center to edge. After inoculation, colonies appear along a spiral track; space between colonies is increased as the arm moves from center to edge. Concentration is determined by counting colonies and dividing by the calibrated volume of the sample in the counted area. A laser-based automatic counter may be used or counting may be done manually. Spiral Systems Marketing. Circle 811.

Computer Interface for Mass Spectrometers

Interlink interfaces many types of 16-bit computers and desk-top calculators with mass spectrometers. With the appropriate hard- and software, these data processors can control mass scanning, signal acquisition, and many other functions of a mass spectrometer. Interlink uses a 16-bit digital-to-analog converter for mass command and 12-bit analog-to-digital converter for analog data acquisition and scalers for pulse counting. Other controls and status checks are routed through three 10-bit digital-to-analog converters and various switches and latches. Extranuclear Laboratories. Circle 809.

Literature

Instrumentation Tape Recording is written for scientists who must evaluate, select, and use tape recording systems with their experimental apparatus. EMI Technology. Circle 815.

Vacuum Filtration Manifold describes a means for simultaneous filtration of up to 12 samples. Amicon. Circle 817.

Neuroscience, Statistics and Psychology is devoted to apparatus and audiovisual materials for these disciplines. Life Science Associates. Circle 818.

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