



Cutaneous Valve

An implantable cutaneous valve is made of Lexan. It permits long-term sampling of blood or other fluids, injecting, and taking pressure readings. The valve anchors firmly in the connective tissue upon healing in situ. The device is reusable after gas sterilization. JAT Scientific. Circle 711.

Spectrofluorometer

Model SFR100 employs single monochromators for excitation and emission. A reference channel monitors the excitation at the sample. The double-beam system determines the ratio of the output of the reference and signal channels and compensates for spectral variation in excitation intensity. The device features digital readout, choice of fixed bandwidths from 1 to 32 nanometers with 0.5-nanometer reproducibility. Baird-Atomic. Circle 712.

Analytical Balance

Model TB160-S has a weighing range of 160 grams, an extended taring range of 48 grams, readability to 0.05 gram, and precision of ± 0.03 milligram. This balance has electronic features and digital output for interface with data processing equipment. Weight measurement is a function of the torque applied to alloy bands. The TB160-S uses a null indicator, a seven-segment LED display, and the digital output is parallel BCD, 8421 code, and TTL-compatible. Taring is additive and does not subtract from the full working range of the balance. Torsion Balance. Circle 713.

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 (on pages 1392A and 1468A) and placing it in the mailbox. Postage is free.

—RICHARD G. SOMMER

Hematology System

The JTB700 is a microprocessor-directed device that counts blood cells, corrects for coincidence, calculates ratios, and monitors the measurement process. Each sample is counted twice. If the results vary, the count is repeated. Seven standard blood parameters are measured and results are displayed on a screen and printed out. The monitor instructs the operator and indicates the state of the instrument and the progress of the measurement. J. T. Baker Instruments. Circle 714.

X-ray Analyzer

The Spectrace 440B features high sensitivity to lighter elements from sodium through chlorine. In a 1000-second test with NBS orchard leaves, the 440B exhibited the following sensitivities: to magnesium, 120 parts per million (ppm); to phosphorus, 10 ppm; to sulfur, 6 ppm; and to chlorine, 2.5 ppm. (The threshold of sensitivity is defined as a peak three standard deviations above background.) The x-ray source emits a continuous spectrum of Bremsstrahlung radiation. The side window on the x-ray tube is thin (5 mils). A silver target is used and the resulting radiation is at 2.98 kiloelectron volts. United Scientific, Nuclear Semiconductor Division. Circle 717.

Nuclear Magnetic Resonance Spectrometer

The EM-390 spectrometer is a 90-megahertz system with resolution to 0.5 hertz (full line width at half maximum amplitude). The 21-kilogauss permanent magnet requires no cooling water. The EM-390 features a range of sweeps from 0.2 to 100 parts per million and a range of offsets from -200 to $+200$ ppm. The proton sensitivity is 50:1 (5-millimeter sample, 1 percent ethylbenzene test) with no compromise of resolution. This enables the operator to analyze samples

of a milligram or less. The spin-rate of the sample is continuously monitored by a tachometer built into the probe. A variety of accessories enable the user to design his own analytic system. Varian Instrument Division. Circle 718.

Temperature Monitor

Model PTS-80A is accurate to within 0.025°C including the probe, signal conditioning, and output circuitry. Resolution is within 0.01°C . The system accommodates up to 30 sensors and a variety of interchangeable probes. Peripheral devices include printers, cassette storage systems, and interfaces. Environmental Systems. Circle 715.

Electron Microscope

The H-300 Universal Electron Microscope combines scanning and transmission electron microscopy in a single console. As a TEM, the instrument provides resolution of 4.5 angstroms, accelerating voltage of 75 kilovolts, and magnification from 250 to 100,000 power. As a SEM, it provides resolution of 100 angstroms, accelerating voltage of 20 kilovolts, and magnification from 50 to 100,000 power. Perkin-Elmer Scientific Instruments. Circle 716.

Literature

Guide to Funds and Volunteers for Field Research 1978-79 describes how qualified scientists may apply for funds and assistants to conduct research. Center for Field Research. Circle 719.

Aminco Laboratory News reports research activities of general interest to the scientific community. American Instrument. Circle 720.

Drug and Metabolite Analysis in Biological Samples describes the use of liquid chromatography to separate and quantitate drugs and metabolites. Waters Associates. Circle 721.

Spectrum Analyzer is devoted to the FFT 512/S narrow band real time spectrum analyzer. Rockland Systems. Circle 722.

Personal Computing System describes the PCS-II, a desk-top system. Wang Laboratories. Circle 724.

Carbon-14 and Tritium Labeled Compounds features nucleics and analogs, mycotoxins, *Vinca* alkaloids, synthetic precursors, and offers a custom-labeling service. Moravek Biochemicals. Circle 725.

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