PRODUCTS and MATERIALS

Graphics Tablets

Two standard-size tablets are capable of transmitting data simultaneously to a computer and a terminal. The 4953 is 11 by 11 inches with a 10-bit format; the 4954 is 40 by 30 inches with a 12-bit format. Both have cursor tracking, single- or multiple-point data entry modes, and local display availability. Freehand drawings may be entered as the tablet converts the pen's position to information required to position the terminal's writing beam. The 10-bit tablet has a 1024 by 1024 point grid; the larger tablet has a 4096 by 4096 point grid. Tektronix, Incorporated. Circle No. 809 on Readers' Service Card.

Diagnostic Thermography

LixKit uses cholesteric liquid crystal that gives rise to irridescent patterns on a blackened surface in response to differences in temperature. Color thermograms are produced rapidly and the temperature sensitivity is 0.1°C. In diagnostic applications the kit consists of liquid crystal in four aerosol cans, each of which contains material calibrated for a different color-temperature range, water-soluble black base in an aerosol can, and a set of disposable aluminum color-temperature range probes. The materials are safe for use on unbroken human skin and can be used to aid in diagnosis of joint, tendon, and muscle conditions; subsurface inflammations; breast cancer; circulatory conditions and impairments; effects of stimulants on circulation; and in other studies in which skin temperature patterns are of interest. Liquid Crystal Biosystems, Incorporated. Circle No. 802 on Readers' Service Card.

Digoxin Assay Kit

Gammacoat kits include four serum standards (0.5 to 4.0 nanograms per milliliter), [^{125}I]digoxin derivative, *p*H-adjusted buffer concentrate, and 50 antibody-coated tubes. Among the reagents is an additive to minimize the variable protein interference effects from serum to serum. The method requires three pipettings and no centrifugation. Clinical Assays, Incorporated. Circle No. 811 on Readers' Service Card.

Orrery and Star Dome

The Helios planetarium (Fig. 1) demonstrates the relative motions of the planets around the sun. The planets can be positioned for different years or months and their progress with time may be studied. A star dome fits over the planetarium and illustrates lines of ascension and declination, the ecliptic and the celestial equator. The motor is driven by a 6-volt power supply (or batteries). The base may also be used to mount an earth globe and a moon to illustrate progression of seasons, eclipses, and, with the star dome, the various constellations visible at different latitudes. A 100-page handbook is also available to suggest projects for students. Science Related Materials. Circle No. 805 on Readers' Service Card.

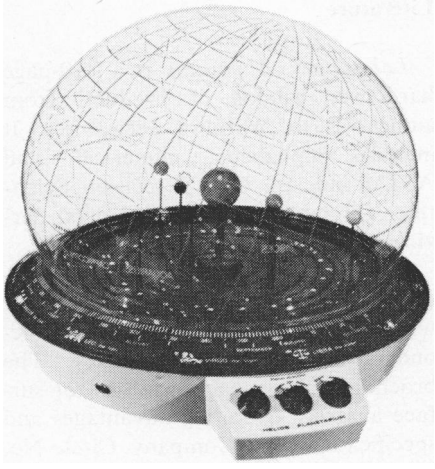

Fig. 1. The Helios planetarium is adaptable to many teaching applications, including astronomy, navigation, and physical science.

Petri Dish Holder

Up to 45 petri dishes may be stacked and carried on this circular Plexiglas device. The holder is designed to revolve and has a center well for marking pens, pipettes, or accessories. Ramrod Designs. Circle No. 810 on Readers' Service Card.

Heating Stage

The model 145 Isotemp dry bath enables incubation under controlled conditions. The temperature range is ambient to 125°C. The sample blocks incorporate cone-shaped wells that offer advantages over cylindrical wells with regard to temperature uniformity (±0.1°C). Blocks are available in eight different sizes from 5-sample capacity with 25-millimeter wells to 35-sample capacity with 6-millimeter wells. Temperature is controlled and maintained with solid state devices. Fisher Scientific Company. Circle No. 812 on Readers' Service Card.

Microcalorimeter

The Calvet microcalorimeter detects temperature differences of 10^{-6}°C with dual specimen chambers. The principle involves measurement of heat exchanged at constant temperature. Heat of reaction is determined independent of knowledge of the reagent's heat capacity. The method may be applied to slow or rapid reactions. The range of temperatures is −206°C to 1000°C and the reaction vessel is separated from the calorimeter. Sepor Laboratory Supply. Circle No. 807 on Readers' Service Card.

Solid Phase Digoxin RIA System

IMMO PHASE solid phase separation systems rely on porous glass particles to which digoxin antibody is chemically bound. The resulting preparation enables diluted, measured, ready-to-use materials to be shipped.

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 (see pages 1122A and 1202C) and placing it in the mailbox. Postage is free.—RICHARD G. SOMMER

The shelf-life of the preparations is extended to at least 120 days. These systems reduce the number of steps in radioimmunoassay and thereby save time. A system consists of 96 ready-to-use antibody tubes and 16 total-count tubes. The antibody tubes contain porous glass particles, with the antibody covalently bonded, suspended in phosphate-buffered saline that contains bovine serum albumin. The total-count tubes do not contain antibody. Each system also includes two 3.5-milliliter vials of digoxin tracer in phosphate-buffered saline that contains bovine serum albumin. Digoxin standards and reference controls are included. They are lyophilized to increase their shelf life. Digoxin standards are pooled human plasma at 0.0, 0.5, 1.0, 2.5, 5.0, and 10.0 nanograms of digoxin, per milliliter. The digoxin reference controls contain pooled human plasma with digoxin contents in the expected "normal" and "elevated" ranges of concentration for patients. Systems are available for counting either beta- or gamma-labeled antigen. Corning Glass Works, Biological Products Department. Circle No. 806 on Readers' Service Card.

Hydrocarbon Monitor

The series 1400 total hydrocarbon monitors (Fig. 2) are suitable for continuous or discrete measurement of emissions. A few parts per billion may be detected. The units use the principle of flame ionization gas chromatography. Options include choice of heated or unheated sampling systems, automated or manual operation, and single- or dual-channel capacity. The model 1440 single-channel unit features a flame ionization detector, a filter to remove particulate matter, a stainless steel bellows pump, a four-port switching valve, a back-pressure regulator, and a high-precision metering valve. The model 2440 system may be set up for continuous monitoring on one channel and for discrete analyses on the other. Varian Associates, Instrument Division. Circle No. 803 on Readers' Service Card.

Tissue Sieve

The Cellector is available in two sizes: 130-milliliter or 85-milliliter capacity. Both sizes have a sieve 40-millimeters across. Interchangeable screens

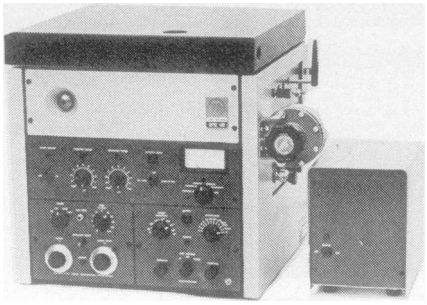

Fig. 2. The Varian series 1400 total hydrocarbons monitor features potential for automation of batch analyses when pneumatic operators are installed on the valves and a sequence programmer controls their operation.

with mesh sizes from 10 to 100 gauge may be used depending upon application. Preparation of cell suspensions or fragmented antibody gel for radioimmunoassay are among the uses of this device. E-C Apparatus Corporation. Circle No. 808 on Readers' Service Card.

Specific Ion Electrodes

Sixteen probes in the p*Ion* series detect NH_4, As-5, Br, CO_3, Cl_2 (residual), Cl, Cr-6, Cu, CN, I, Pb, Hg, P-5, Ag, S, and SO_3, respectively. The probes are solid state electrodes mounted in high-impact polymer bodies. They are available as single probes or, with built-in references, as combination probes. The supplier offers parts-per-million calibration and *p*H-control solutions may be formulated. Chemtrix, Incorporated. Circle No. 804 on Readers' Service Card.

Literature

Laboratory Apparatus is a 270-page hardcover catalog of products from autoclaves to Warburg accessories. It includes alphabetic, numerical, and ASTM indexes. GCA/Precision Scientific. Circle No. 813 on Readers' Service Card.

Analytical Systems—ISS/SIMS describes an ion-scattering spectrometer which is capable of performing secondary ion mass spectrometry. The brochure describes applications for surface analysis, operating advantages and specifications. 3M Company. Circle No. 824 on Readers' Service Card.

High Precision Measuring Instruments for Industrial Use is an eight-page brochure devoted to a line of optical and other products for production line, quality control, and industrial research. Carl Zeiss, Incorporated. Circle No. 814 on Readers' Service Card.

Alfa Catalog of Research Chemicals and Materials includes applications data and specifications of items for chemists, physicists, metallurgists, biologists, and materials scientists. Ventron Corporation, Alfa Products. Circle No. 815 on Readers' Service Card.

The Perkin-Elmer Model 1220 Liquid Chromatograph is described in detail in a 12-page brochure. Sections are devoted to basic principles of operation and to applications as well as specifications. Perkin-Elmer Corporation, Instrument Division. Circle No. 816 on Readers' Service Card.

Photosensitive Devices catalogs photomultipliers, phototubes, photoconductive cells, light sources, memory tubes, and video equipment. Hamamatsu Corporation. Circle No. 817 on Readers' Service Card.

Stellite Alloys for Outstanding Resistance to Abrasive Wear, Adhesive Wear, Cavitation-Erosion describes wear-testing of alloys and rates them according to their form and anticipated types of wear. Stellite Division, Cabot Corporation. Circle No. 818 on Readers' Service Card.

Instrumatic Portable Hardness Tester is a product-specification sheet describing a device that reads directly on Brinell, Rockwell, and Vickers scales. Hacker Instruments, Incorporated. Circle No. 819 on Readers' Service Card.

MAPPS Off-Line Matrix Print/Plot System discusses a means of using large computer systems for electrostatic writing in an off-line configuration. Versatec, Incorporated. Circle No. 820 on Readers' Service Card.

Materials, Equipment and Systems for Chromatography, Electrophoresis and Membrane Technology is a 100-page catalog including information on the hollow-fiber technique for rapid dialysis and ultrafiltration. Bio-Rad Laboratories. Circle No. 821 on Readers' Service Card.

Particle Size Analysis and Powder Characterization details services and capabilities. Particle Data Laboratories, Limited. Circle No. 822 on Readers' Service Card.

Analytical Standards Manuals and Kits is an eight-page bulletin of items of use in qualitative and quantitative chemical analysis. PolyScience Corporation. Circle No. 823 on Readers' Service Card.

PRODUCTS and MATERIALS

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