

PRODUCTS and MATERIALS

Weather Station

A self-contained Weather Station supplies immediate measurements of wind direction, wind speed, and air temperature. Wind direction is indicated on a gauge that also gives storm warning signals for day or night conditions. Wind speed is indicated in miles per hour with force calibrated on a Beaufort scale as well. Temperature is measured from -40° to 150°F . The stations include directions for installation and calibration. Watrous. Circle 679.

Electric Current Monitor

The ESD-9000 renders an 85-decibel signal two times per second to warn of conditions hazardous to laboratory apparatus. Such conditions may be drops, surges, or cutoffs of electrical current, temperature changes, or pressure changes. These alarms are designed for interface with central computers, alarms, or event recorders for complete protection of sensitive laboratory apparatus. Wolsk Associates. Circle 681.

Multi-Nuclear Observation Accessory

The capability of performing multi-nuclear observation is now available for the FX100 Fourier transform nuclear magnetic resonance spectrometer. The accessory consists of a single tunable probe, frequency synthesizer, and a wide-band amplifier. All nuclear magnetic resonance from 5.5 to 40.5 megahertz (relative to 100-megahertz proton) can be simply selected. JEOL Analytical Instruments. Circle 689.

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 1276A and 1360A) and placing it in the mailbox. Postage is free.

—RICHARD G. SOMMER

Microcomputer Systems

Micropac Program Development Systems include a PROM programmer, dual floppy disk system, high-speed line printer, CRT terminal, and interface modules plus software. This system enables the microcomputer user to design, program, and install a system with relative, rather than absolute, addressing of program segments. Thus, only portions of program directly affected by software changes need be reassembled when any change is made. Different configurations of hardware and software are available to suit the user. All options are based on stand-alone microcomputer modules and minimum systems may be upgraded to allow for greater complexity. Process Computer Systems. Circle 678.

Water Quality Monitoring System

A system is now available for oceanographic or limnologic data acquisition. The underwater probe, model 513D, measures conductivity, salinity, temperature, depth, dissolved oxygen, pH, turbidity, oxidation-reduction potential, and concentrations of specific ions. Model 514D is a digital readout of the data acquired by the probe. The user may monitor the various parameters individually

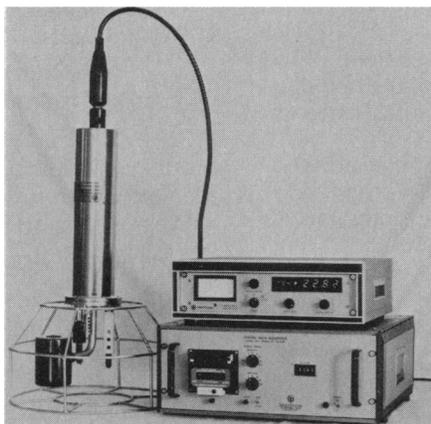


Fig. 1. Model 513D underwater probe and model 514D digital deck readout from InterOcean Systems.

via continuous scanning of one he selects or all at once. The readout may be interfaced to any of several types of recorders. The system is complete with an electromechanical sea cable and a winch. InterOcean Systems. Circle 690.

8-Hour Lecture Recorder

Model RAD14 is a miniature tape recorder that will record for 4 hours, stop automatically, and emit a tone. The operator then turns the cassette and reactivates the device for another 4 hours. An optional switch allows the operator to interrupt the recording and continue at a later time. The device measures 5.5 by 3.25 by 1.25 inches. It is equipped with a cassette, a microphone, record/play control, review mechanism, auto-stop with alarm, pause button, three-digit counter with reset, battery-condition indicator, 4-hour battery set with holder, 2-hour rechargeable battery pack, a-c adaptor/recharger, carrying case, and an earphone. It weighs 1.1 pounds. Courterport. Circle 680.

Pocket Thermometers

The series 1500 thermometers are powered by C batteries. They are available in -55° to 999°F and -55° to 999°C models. They read in 1° increments. A variety of stainless steel penetration, immersion, and surface Type K thermocouple probes are available. All models come in leather cases. Extech International. Circle 693.

Laboratory Freezer

Model SE22-100 is designed for medical research and preservation of tissues, plasma, and blood cells. Temperature is adjustable from -18° to -73°C . The cabinet is steel and the lid is counterbalanced. Chamber dimensions are 67 by 19 by 30 inches. SE22-100 is also available with a recording thermometer and buzzer system. So-Low Environmental Equipment. Circle 692.

Scanning Electron Microscope

The System III-A offers a magnification range from 10 to 200,000 power. Features include television-scan mode, variable control of accelerating voltage at 2, 5, 10, 15, and 25 kilovolts, dual magnification and signal imaging, and an automatic vacuum system. The device pro-

CLINICAL ECOLOGY edited by Lawrence D. Dickey. (45 Contributors) Clinical ecology is considered in this book with regard to historical background, basic and general concepts, manifestations, excitants, individual susceptibility, specific adaptation, and diagnostic and therapeutic techniques. Discussed are the application of avoidance procedures where specific excitants are recognized; the use of hyposensitization, desensitization, immunizing and neutralizing techniques when exposures are unavoidable; and the improved tolerance that results with avoidance and dietary, nutritional, orthomolecular and immunotherapeutic procedures. '76, 832 pp. (6 3/4 x 9 3/4), 47 il., 94 tables, \$35.75

THE MONOCLONAL GAMMOPATHIES: Multiple Myeloma and Related Plasma-Cell Disorders by Robert A. Kyle and Edwin A. Bayrd, both of Mayo Clinic and Mayo Foundation, Rochester, Minnesota. Foreword by I. Newton Kugelmass. Current and comprehensive, this reference source begins with a classification of monoclonal gammopathies and a description of the immunoglobulins. Methods for screening sera and urine with subsequent identification of a monoclonal protein are described. The text thoroughly presents the etiology, epidemiology, clinical and laboratory features, diagnosis, course and management of multiple myeloma, Waldenström's macroglobulinemia, heavy chain diseases, amyloidosis, benign monoclonal gammopathy and other plasma-cell disorders. '76, 432 pp., 97 il., 79 tables, \$36.75

PALEOPATHOLOGICAL DIAGNOSIS AND INTERPRETATION: Bone Diseases in Ancient Human Populations by R. Ted Steinbock, Harvard Medical School, Boston. Foreword by T. Dale Stewart. The author provides a systematic approach for diagnosing bone lesions in excavated skeletal series and interpreting the significance of such diseases in ancient human populations. Chapters discuss the biology and gross anatomy of normal bone to aid in understanding the bone changes produced by pathological conditions. The major traumatic, infectious, nutritional, metabolic, degenerative and neoplastic diseases of bone are also covered. A special section is devoted to establishing nutritional deficiency as the cause of peculiar lesions found in large numbers of excavated crania. '76, 440 pp., 274 il., 16 tables, \$22.75

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vides zoom magnification, control of focusing, automatic filament saturation, gamma control, and automatic control of brightness and contrast. Externally selectable apertures are optional. There are four modes of operation including secondary electrons, backscattered electrons, external line profile with Y control, and spot mode with X-Y control. The universal stage accepts specimens up to 3 inches in diameter. Super III-A interfaces with energy-dispersive or wavelength x-ray spectrometers. International Scientific Instruments. Circle 691.

Animal Activity Monitor

Opto-Varimex measures animal activity in 16 by 16 inch cages and plots their movements on an X-Y chart. Operation is based on two arrays of infrared beams crossing each other at right angles 1 inch above the bottom of the measuring field. Patterns of movement and the effects of experimental conditions (administration of drugs, for example) on patterns may be studied. With the installation of vertical sensors, a third dimension of movement may also be measured. Columbus Instruments International. Circle 694.

Tape Recorder

Biotape 500 is a magnetic tape recorder that features audio and time/event input. Five channels may be recorded or played back simultaneously. This recorder may be used to activate remote devices through encoded event marks on the tape. Another application allows recording of information on one track about the data on a previously recorded track. All five channels may be displayed while being edited, dubbed, or recorded. EDCO Scientific. Circle 695.

Digital Voltmeter

Model 9577 is a 7.5-digit meter with a displayed scale length of 14 millions. It can measure direct current and alternating current (true root-mean-square) volts, ohms, and ratios of direct currents to one another or to alternating currents. With an external resistance thermometer, the 9577 can measure temperature. Whether the measurement made reflects hundreds of volts, millivolts, or microvolts, the reading is always in the same place; the decades are static. Digits are grouped in threes with a fixed decimal point always reading in volts (or kilo-ohms). Guildline Instruments. Circle 682.

Literature

Humidity Instrumentation lists a complete line including accessories and design specifications. General Eastern Instruments. Circle 696.

Cachalot-Brand Fatty Alcohols includes a complete listing of pure fatty alcohols in the eight- to eighteen-carbon range. M. Michel. Circle 697.

Vacutainer-Brand Evacuated Blood Collection System is a 44-page booklet that classifies tubes, needles, and holders and describes proper types for various applications. B-D Division, Becton, Dickinson. Circle 698.

Laboratory Regulation Manual is a two-volume set that treats legal aspects of laboratory operation. A free four-page brochure describes the set. Aspen Systems. Circle 699.

Automatic Gas Chromatograph describes the device that automates the entire process from sample injection and separation through peak measurement, calculation, and final report. Varian Instrument Division. Circle 700.

Column Survival Kit extends the useful life of columns for high-performance liquid chromatography. Whatman. Circle 701.

Dissecting Instruments is devoted to forceps, scalpels, scissors, needles, and other typical tools for a variety of biological disciplines. Carolina Biological Supply. Circle 702.

Infrared Laser Components includes zinc selenide, germanium, gallium arsenide, silicon, and calcium fluoride components from 0.5 to 4.0 inches. Laser Optics. Circle 683.

Scanning Electron Microscope depicts the Stereoscan 150 instrument, a modular system with many optional configurations. Cambridge Instrument. Circle 684.

Pyroelectric Detectors are described in a series of brochures. Also listed are radiometers and chopper accessories. Molecron. Circle 685.

Computer Power Center is devoted to a new peripheral and its application to computer systems design. Computer Power Systems. Circle 686.

Digital Signal Analyzer describes the NS-570A analyzer that performs a full complement of signal analyses. Tracor Northern. Circle 687.

Laboratory Tube Furnaces lists the models available in the 55000 series that incorporate the insulation/heating element composite called Moldatherm. Lindberg Division, Sola Basic Industries. Circle 688.

Semiconductor Reference Handbook lists more than 36,000 semiconductor substitutions. Radio Shack. Circle 703.

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