American Soc. of Criminology (D. E. J. MacNamara, Dean, New York Inst. of Criminology, Inc., 40 E. 40 St., New York 16). 27–28 Dec.

American Soc. of Naturalists (J. Schultz, Inst. for Cancer Research, Philadelphia, Pa.).

American Soc. of Photogrammetry (R. G. Ray, U.S. Geological Survey, Washington 25). 29 Dec.

American Soc. of Zoologists (G. Moment, Dept. of Biology, Goucher College, Towson, Baltimore 4, Md.). 27–29 Dec.

American Sociological Soc. (K. Davis, Inst. of International Studies, Univ. of California, Berkeley 4). 29 Dec.

Association of American Geographers, Middle Atlantic Div. (J. E. Guernsey, 9707 Parkwood Dr., Bethesda, Md.). 29 Dec.

Association for Computing Machinery (J. Douglas, Mathematics Dept., Rice Inst., Houston, Tex.).

Astronomical League (Miss G. C. Scholz, 410 Mason Hall Apts., Alexandria, Va.). 26 Dec.

Biometric Soc. (J. Cornfield, Johns Hopkins Univ., Baltimore, Md.). 30 Dec.

American Statistical Assoc. (E. Glazer, 305 George Mason Dr., Falls Church, Va.). 30 Dec.

Conference on Scientific Communication Problems (G. L. Seielstad, Applied Physics Lab., Johns Hopkins Univ., Silver Spring, Md.) 28–30 Dec.

Conference on Scientific Manpower (T. J. Mills, National Science Foundation, Washington 25). 30 Dec.

Ecological Soc. of America (D. E. Davis, Johns Hopkins Univ., School of Hygiene, Baltimore, Md.).

History of Science Soc. (M. C. Leikind, 1334 Aspen St., NW, Washington 12). 29 Dec.

Instrument Soc. of America (O. L. Linebrink, Battelle Memorial Inst., Columbus, Ohio). 30 Dec.

International Geophysical Year (H. Odishaw, National Acad. of Sciences, Washington 25). 29–30 Dec.

Junior Scientists Assembly (K. C. Johnson, Supervising Director of Science, District of Columbia Public Schools, Woodrow Wilson High School, Washington 16). 27–28 Dec.

Metric Assoc. (J. T. Johnson, 694 W. 11 St., Claremont, Calif.).

National Acad. of Economics and Political Science (D. P. Ray, Hall of Government, George Washington Univ., Washington, D.C.). 27 Dec.

National Assoc. of Biology Teachers (P. Klinge, Jordan Bldg., Indiana Univ., Bloomington). 26–30 Dec.

National Assoc. for Research in Science Teaching (E. S. Obourn, U.S. Office of Education, Washington 25). 26–30 Dec.

National Assoc. of Science Writers (J. Billard, U.S. News and World Report, Washington, D.C.).

National Geographic Soc. (W. R. Gray, NGS, 16 and M Sts., NW, Washington 6). 30 Dec.

National Science Teachers Assoc. (W. A. Kilgore, District of Columbia Teachers College, Washington 9). 26–30 Dec.

National Speleological Soc. (W. E. Davies, 125 Greenway Blvd., Falls Church, Va.). 28–29 Dec.

Philosophy of Science Assoc. (C. W. Churchman, Case Inst. of Technology, Cleveland, Ohio).

Pi Gamma Mu (Mrs. Effie B. Urqhart, Winfield, Kan.).

Scientific Research Soc. of America (D. B. Prentice, 56 Hillhouse Ave., New Haven 11, Conn.).

Sigma Delta Epsilon (Mrs. V. L. Blackford, 2630 Adams Mill Rd., NW, Washington 10). 26–30 Dec.

Society for General Systems Research (R. L. Meier, Mental Health Research Inst., Univ. of Michigan, Ann Arbor). 29 Dec.

Society for Industrial Microbiology, Washington section (W. N. Ezekiel, Bur. of Mines, Washington 25). 27–28 Dec.

Society of the Sigma Xi (T. T. Holme, 56 Hillhouse Ave., New Haven 11, Conn.). 29 Dec.

Society of Systematic Zoology (G. W. Wharton, Dept. of Zoology, Univ. of Maryland, College Park). 26–30 Dec.

United Chapters of Phi Beta Kappa (C. Billman, 1811 Q St., NW, Washington, D.C.). 27 Dec.

Washington Acad. of Sciences (G. W. Irving, ARS, U.S. Dept. of Agriculture, Washington 25).

(See issue of 17 October for comprehensive list)

Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Science *does not assume responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed appears on page 1230.*

■ ELECTROMETER measures currents as small as 3×10^{-14} amp with response times less than 0.1 sec, including effects of input cable capacitance. The instrument is direct-reading and has provisions for oscilloscope and recorder connection. (EH Research Laboratories, Dept. 474)

■ THERMAL-RADIATION STANDARD SOURCE consists of an isothermal cavity with a black-body aperture 1⅛ in. in diameter and a transistorized temperature-control unit. Operating temperature range is 100° to 1000°C. Temperature is controlled within ±1°C. Effective total emissivity greater than 0.995 is accomplished through use of a biconical cavity the walls of which have high natural emissivity. Warm-up time from room temperature to 1000°C is 90 min; this may be reduced to 70 min by use of 140-v input power. (Electronic Communications Inc., Dept. 479)

■ HIGH-SPEED CAMERA provides 16-mm motion pictures at speeds up to 1000 frames per second. High frame rates are achieved by means of a rotary prism and a disk shutter that turn in synchronism with the continuously moving film. Variation of shutter opening permits control of exposure. (Traid Corporation, Dept. 477)

■ TWO-CHANNEL OSCILLOSCOPE is designed specifically for medical application—for example, simultaneous observation of electrocardiograph and electroencephalograph signals for monitoring anoxia in surgery. The two traces are displayed on a 5-in., long-persistence screen. Frequency response is 2000 cy/sec. Sweep rate is variable from 7.5 to 100 mm/sec and sensitivity is 330 μv/cm. (Levinthal Electronic Products Inc., Dept. 456)

■ VOLTAGE CALIBRATOR furnishes direct current or 1 kcy/sec square-wave output continuously variable from 0.02 to 100 v. Accuracy is ±0.75 percent (Exact Electronics, Inc., Dept. 457)

■ FILTER is continuously variable with separate high-pass and low-pass sections. Any bandwidth within the range 20 to 20,000 cy/sec can be set. The device is a passive network designed for 600-ohm circuits. Impedance-matching transformers are available as plug-in accessories. (Allison Laboratories, Dept. 475)

■ GRATING ACCESSORY for infrared spectrometers employs two replica gratings ruled at 1500 and 3000 lines per inch, respectively, for the ranges 650 to 2150 cm^{-1} and 2150 to 3650 cm^{-1}. The prism instrument operates in combination with the accessory as a double monochromator. A push-button control moves an auxiliary mirror into the optical path to blank out the grating and permit use of the simple prism monochromator. (Unicam Instruments Ltd., Dept. 476)

■ ELECTROPOLISHER pumps electrolyte through a series of orifices so that it contacts the specimen in the form of a rotating and continuously renewed vertical column of liquid, thus avoiding flow lines. The self-contained polishing unit with its own pump is separate from the power supply. Thus several polishing units can be connected in turn to the same power supply. The latter furnishes 50 v at 5 amp with controls for automatic or manual polishing. (Shandon Scientific Co., Ltd., Dept. 483)

■ TAPE READER is designed to read simultaneously a fixed block of information of up to 160 bits on perforated 5- or 8-hole tape. Output terminals are available for all bits. (Wang Laboratories, Inc., Dept. 482)

■ BIOCHEMICALS, over 2300 in number, are listed with prices in a new catalog. Many new listings are included. (Nutritional Biochemicals Corporation, Dept. 472)

■ OSCILLATOR of transistor design maintains frequency stability within ± 0.25 percent over the temperature range – 55° to 105°C. Frequency is adjustable between 20 cy and 20 kcy/sec. Distortion is less than 1 percent. Power output is 30 mw with output impedance less than 30 ohm. Operation is on 115 v, 450 cy/sec a-c or 28 v d-c. (General Controls Co., Dept. 481)

■ TRANSISTOR SWITCHING TIME is measured by an instrument that determines the switching time of the leading and trailing edges of the output pulse with an error of ± 3 mμsec in the 3- to 100-mμsec range. The device is direct-reading and may be set for go-no-go testing. The instrument operates by applying a precise driving pulse to the transistor. That portion of the output to be measured is sampled with a pulse whose characteristics are known, thus converting time to a voltage proportional to duration. This voltage is amplified and displayed on a meter calibrated in mμsec. (Atronic Products Inc., Dept. 501)

■ PUNCHED-CARD READER achieves a reading rate of 2000 cards per minute by substituting photoelectric hole detection for electrical brush contacts. Movement of the card is used to time reading by using the leading edge of the card to actuate 12 photocells. Vertical feed provides gravity assist to the feeding mechanism. (Uptime Corp., Dept. 471)

■ MICROVOLT-AMMETER measures d-c voltages from 1 μv to 1 v and currents from 1 μμa to 3 ma. Full-scale voltage sensitivity is ± 10 μv, full-scale current sensitivity ± 10 μμa. Accuracy is ± 3 percent of full scale, and frequency range is from d-c to 0.2 cy/sec at 3 db down. The use of a photoconductive chopper reduces drift to less than 1 μv over several hours. Input impedance is normally 1 megohm, but higher impedances are obtainable. (Hewlett-Packard Co., Dept. 473)

■ SCINTILLATION SPECTROMETER records the energy range 25 kev to 8 Mev over 10 in. of chart length. The equipment includes an amplifier, scintillation counter and lead shield, a logarithmic count-rate meter, and a power supply. The recorder chart-drive motor also drives the scanning potentiometer. Stability is 0.25 percent per day. Linearity is better than 1 percent. Background is less than 25 count/min. (Hamner Electronics Co., Inc., Dept. 478)

JOSHUA STERN
National Bureau of Standards

PERSONNEL PLACEMENT

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Biochemist; Ph.D.; 12 years' experience in pharmaceutical industry; 4 years' research chemist and group leader; 8 years, director of research. Medical Bureau, Burneice Larson, Director, 900 North Michigan, Chicago. X

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Medical Abstractor. M.A. in languages (French, Spanish, German). Seeks opening in New York area; abstracting, translating, editing, and so on. Woman, 27. Box 235, SCIENCE. X

Zoologist-Biologist, male, age 32, married; 1 year of research and 3 years of college teaching beyond doctorate, at present assistant professor. Interested in teaching position with opportunity for research, preferably West or Midwest. Available fall 1959. Box 238, SCIENCE. X

Zoologist, Ph.D.; 3 years' experience in the use of radioisotopes; minors: physiology, botany, and chemistry. Best references; prefers research. Box 236, SCIENCE. X

POSITIONS OPEN

Biologist, Histologist, Histochemist, Ph.D. or equivalent. Research institute, New York—to work in the field of experimental diabetes. Starting salary $7500. Box 228, SCIENCE. 10/31; 11/7, 14

POSITIONS OPEN

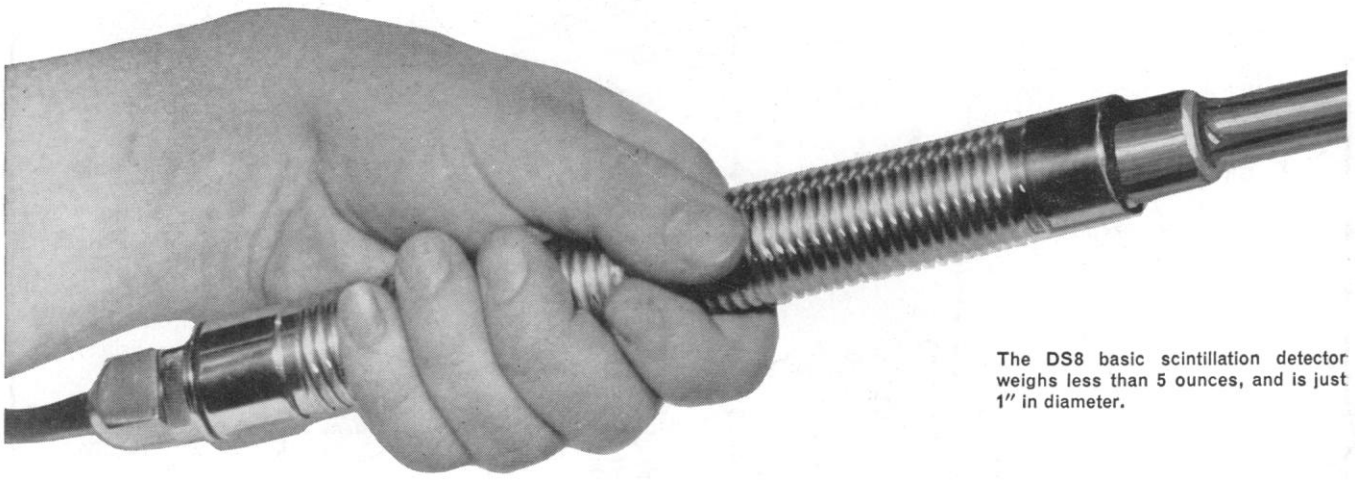
Cytologist, Histochemist and **Geneticist,** Ph.D., to teach in New England Catholic university; graduate and undergraduate department. Please indicate qualifications. Box 231, SCIENCE. 10/31; 11/7, 14

Cytotechnologist to head section of cytotechnology in university hospital laboratory; routine, research, and teaching duties. New laboratory facilities being designed and would like to have cytotechnologist to participate in design and development. Salary open. Interview required. Write to Dr. J. F. A. McManus, Professor and Chairman, Department of Pathology, University of Alabama Medical Center, Birmingham, Alabama. X

Educational Representative, medical book department. Send complete résumé to T. A. Phillips, Little, Brown & Company, 34 Beacon Street, Boston 6, Massachusetts. 11/21

(a) **Pharmacologist** and (b) **Biochemist;** outstanding opportunities for administratively minded Ph.D.'s to act as second in respective departments, noted eastern pharmaceutical, research concern; to $14,000. (c) **Virologist;** Ph.D. for 3-year research project in affiliation prominent New York City teaching hospital; to $8000. (d) **Biochemist;** newly created position in expanding laboratory, some investigative work; Ph.D. preferred; 200-bed general hospital; $7200; southwestern resort, city 25,000. (e) **Bacteriologist;** M.S. or better, expanding laboratory, hospital to be 350 beds; college, capital city 75,000; Southeast. Woodward Medical Bureau, Ann Woodward, Director, 185 North Wabash, Chicago. X

Research Assistant. Experience working with immunology required. Some knowledge biochemistry preferred. Excellent opportunity to work on interesting cancer research project. Write Mr. Joseph H. Kay, Personnel Director, Montefiore Hospital, New York 67, N.Y. X



The DS8 basic scintillation detector weighs less than 5 ounces, and is just 1" in diameter.

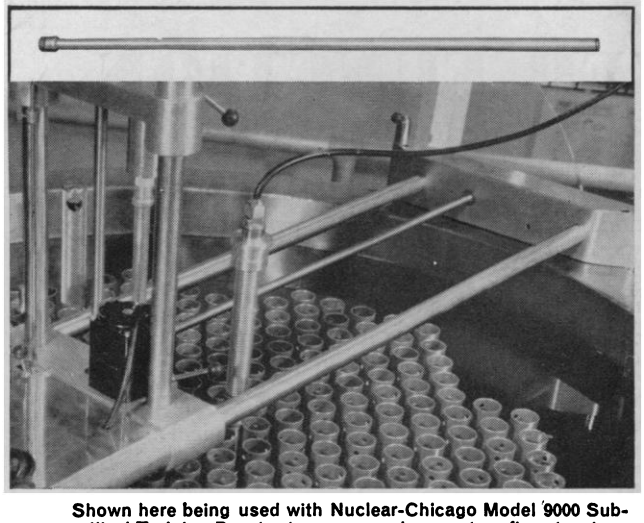
Versatile New Scintillation Probe Detects Fast or Slow Neutrons, Gammas, and Betas

Completely new, the Nuclear-Chicago Model DS8 Scintillation Probe provides precision detection of fast or slow neutrons, gamma and beta radiation. Utilizing a unique new 10 stage, ¾" photomultiplier tube and a completely transistorized electronic circuit, the probe is completely water tight and corrosion proof. A resolution time in the microsecond region permits its use in extremely high radiation fields.

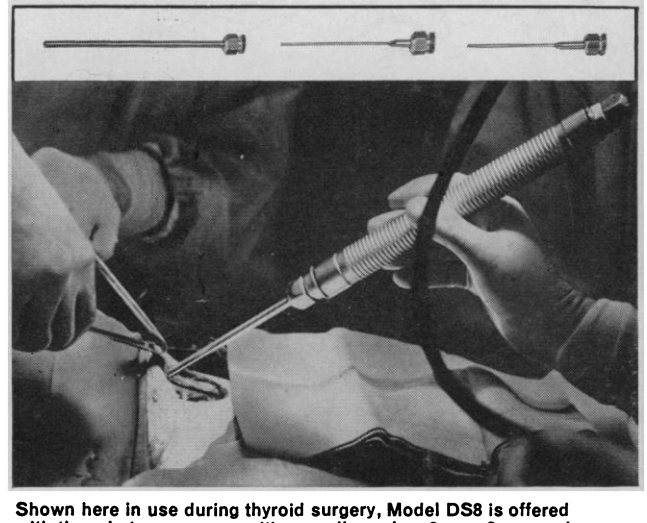
Two neutron probes are offered for flux measurements in reactors or subcritical assemblies. The neutron sensitive volume is confined to the very ends of the 42" probes so that "point" measurements may be made easily. Probe housings are quickly removed to permit substitution of slow neutron or fast neutron sensitive phosphors. These long probes can also be supplied with sodium iodide crystals for gamma detection.

Three needle probes with 2.5 mil wall thicknesses are available for beta and gamma detection. They are unequalled for measuring radiation in almost inaccessable areas where highest resolution is essential.

For more than 12 years we have been designing and manufacturing high quality, dependable instruments for detecting and measuring radioactivity. We will be glad to furnish you complete information on this new DS8 Scintillation Probe or on other Nuclear-Chicago instrumentation or our Research Quality Radiochemicals.



Shown here being used with Nuclear-Chicago Model 9000 Subcritical Training Reactor to measure slow neutron flux at various points in the lattice, neutron probes are 42" long and are available in two diameters, 3/4" and 11/32".



Shown here in use during thyroid surgery, Model DS8 is offered with three beta-gamma sensitive needle probes 2 mm, 3 mm and 6 mm in diameter, 10 cm to 15 cm in length. All probes are easily interchanged by loosening a simple hand nut.

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