

further discussion on radiation-produced radicals in living and dead materials. E. L. Powers (Argonne) gave a concluding paper on the role of free radicals in the lethal effect of x-rays on dry bacterial spores.

The symposium was a unique, congenial, and timely meeting, devoted to a subject matter of rapidly growing interest. The proceedings will be published by Academic Press and should appear later this year.

M. S. BLOIS

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#### Forthcoming Events

##### August

21-6. Pacific Science Cong., 10th, Honolulu, Hawaii. (Secretary-General, 10th Pacific Science Cong., Bishop Museum, Honolulu 17)

22-25. American Astronomical Soc., Mexico City, Mexico. (J. A. Hynek, Smithsonian Astrophysical Observatory, 60 Garden St., Cambridge 38, Mass.)

22-25. American Physiological Soc., San Francisco, Calif. (R. G. Daggs, APS, 9650 Wisconsin Ave., NW, Washington 14)

22-26. Plasma Physics, symp., Gatlinburg, Tenn. (University Relations Div., Oak Ridge, Inst. of Nuclear Studies, P.O. Box 117, Oak Ridge, Tenn.)

22-26. Western Resources, 2nd annual conf., Boulder, Colo. (M. E. Garnsey, Dept. of Economics, Univ. of Colorado, Boulder)

23-25. Assoc. for Computing Machinery, natl., Milwaukee, Wis. (J. Moshman, ACM, Council for Economic and Industry Research, 1200 Jefferson Davis Highway, Arlington 2, Va.)

23-25. Cryogenic Engineering Conf., Boulder, Colo. (K. D. Timmerhaus, CEC, Dept. of Chemical Engineering, Univ. of Colorado, Boulder)

23-26. American Statistical Assoc., annual, Palo Alto, Calif. (D. C. Riley, ASA, Beacon Bldg., 1757 K St., NW, Washington 6)

23-26. Biological Photographic Assoc., Salt Lake City, Utah. (Miss J. H. Waters, Box 1668, Grand Central Post Office, New York 17)

23-26. Institute of Mathematical Statistics, annual, Stanford, Calif. (W. Kruskal, Dept. of Statistics, Eckhart Hall, Univ. of Chicago, Chicago 37, Ill.)

23-28. American Ornithologists' Union, Ann Arbor, Mich. (H. G. Diegman, Division of Birds, U.S. National Museum, Washington 25)

24-27. Forest Biology Conf., Seattle, Wash. (Miss E. N. Wark, Technical Assoc. of the Pulp and Paper Industry, 360 Lexington Ave., New York 17)

24-27. Internal Medicine, 6th intern. cong., Basel, Switzerland. (Secretariat, 6th ICIM, 13 Steinentorstre, Basel)

24-2. International Union for the History and Philosophy of Science, Stanford, Calif. (R. Taton, 64, rue Gay-Lussac, Paris 5<sup>e</sup>, France)

25-27. Chemical Organization of Cells,

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**BIOCHEMICALS, RADIOCHEMICALS, PHARMACEUTICALS**  
for research, for medicine, for industry

2nd conf., Madison, Wis. (J. F. A. McManus, Dept. of Pathology, Univ. of Alabama Medical Center, Birmingham)

25-3. High Energy Nuclear Physics, intern. conf., Rochester, N.Y. (W. A. Jamison, Dept. of Physics and Astronomy, Univ. of Rochester, Rochester 20)

27-30. International Union of Biological Sciences, section of embryology, Pallanza, Italy. (F. E. Lehmann, Kuhnweg 10, Berne, Switzerland)

28-31. American Phytopathological Soc., Green Lake, Wis. (W. B. Hewitt, Dept. of Plant Pathology, Univ. of California, Davis)

28-31. Potato Assoc. of America, Green Lake, Wis. (R. L. Sawyer, Long Island Vegetable Research Farm, Cornell Univ., Riverhead, N.Y.)

28-31. Soil Conservation Soc. of America, Guelph, Ontario, Canada. (H. W. Pritchard, 838 Fifth Ave., Des Moines 14, Iowa)

28-1. American Inst. of Biological Sciences, annual, Norman, Okla. (H. T. Cox, AIBS, 2000 P St., NW, Washington 6)

28-1. Association of American Geographers, East Lansing, Mich. (M. F. Burrill, Office of Geography, Dept. of Interior, Washington 25)

28-1. Diseases of the Chest, intern. cong., Vienna, Austria. (M. Kornfeld, 112 E. Chestnut St., Chicago 11, Ill.)

28-2. Combustion, 8th intern. symp., Pasadena, Calif. (Office of Industrial Associates, California Inst. of Technology, Pasadena)

28-2. International Pharmaceutical Federation, Copenhagen, Denmark. (A. W. Tønnesen, Bispebjerg Hospital, Copenhagen, N.V.)

28-2. International Soc. for the Welfare of Cripples, world cong., New York, N.Y. (D. V. Wilson, 701 First Ave., New York 17)

28-3. Electron Microscopy, European regional conf., Delft, Netherlands. (A. L. Housink, Lab. v. Microbiologie, Julianalaan 67A, Delft)

28-3. Histochemistry and Cytochemistry, 1st intern. cong., Paris, France. (R. Wegmann, Institut d'Histochemie Medicale, 45, rue des Saints-Pères, Paris 6°)

29-31. American Sociological Assoc., New York, N.Y. (D. R. Young, Russell Sage Foundation, 505 Park Ave., New York)

29-31. Clinical Chemists (Canadian and American Societies), annual, Montreal, Canada. (E. Harpur, Montreal Children's Hospital, Montreal)

29-31. Electron Microscope Soc. of America, 18th annual, Milwaukee, Wis. (W. C. Bigelow, Dept. of Chemical and Metallurgical Engineering, Univ. of Michigan, Ann Arbor)

29-31. Metallurgy of Elemental and Compound Semiconductors, Boston, Mass. (E. O. Kirkendall, AIME, 29 W. 39 St., New York 18)

29-31. Water Quality Measurement and Instrumentation, PHS symp., Cincinnati, Ohio. (R. T. Hyde, Robert A. Taft Sanitary Engineering Center, 4676 Columbia Parkway, Cincinnati 26)

29-1. Ballistic Missile and Space Technology, 5th symp., Los Angeles, Calif. (C. T. Morrow, Space Technology Laboratories, P.O. Box 95001, Los Angeles 45)

(See issue of 22 July for comprehensive list)

## New Products

*The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to the manufacturer. Include the department number in your inquiry.*

■ **DIFFERENTIAL-PRESSURE METER** is said to be capable of resolution of 0.05 percent. Interchangeable capsules are available to measure full-scale ranges of  $\pm 1$ , 3, 10, 30, and 100 in. of water with an overpressure capability of 30 lb/in.<sup>2</sup> Pressure measurements are directly indicated and are provided as voltage analog with  $\pm 10$  volts full scale for all ranges. Capsules are made of stainless steel. (Decker Corp., Dept. Sci665, 45 Monument Rd., Bala Cynwyd, Pa.)

■ **PORTABLE HARDNESS TESTER** applies a minor load of 10 kg and a major load up to 150 kg. Readings are direct in Rockwell A, B, or C scales. Electromagnetic or chain clamps are used to apply the instrument to the object tested. Curved as well as flat surfaces can be tested. Standard equipment includes a cone diamond penetrator, a ball penetrator, a standard C-clamp, anvils, and test block. (Steel City Testing Machines, Dept. Sci667, 8817 Lyndon Ave., Detroit 38, Mich.)

■ **SPECIFIC GRAVITY INSTRUMENT** indicates directly and continuously specific gravity of flowing liquids. The density-sensing device is a totally submerged, chain-weighted glass plummet. Accuracy is said to be  $\pm 1$  percent of full scale. Any 0.05 or 0.10 specific gravity span within the limits 0.65 to 1.40 can be selected. (Precision Thermometer and Instrument Co., Dept. Sci669, 1434 Brandywine St., Philadelphia 30, Pa.)

■ **BIOLOGICAL MICROSCOPES** of inverted type are available in laboratory and research models, either monocular or binocular, with bright-field or phase-contrast optics. Magnifications up to 2000 times are provided. Illuminators are built in, and a wide choice of accessories includes a long working-distance, 40 $\times$  objective, and a number of cameras. (Unitron, Dept. Sci671, 204 Milk St., Boston 9, Mass.)

■ **VACUUM THERMOCOUPLE JUNCTIONS**, for electrical measurements from d-c to 10 Mcy/sec, provide sensitivities from 2.5 to 1000 ma full scale. Thermocouples are in thermal contact with the current-carrying heater, but electrically insulated from it for 100 volts d-c. Open-circuit voltage and junction resistance are individually calibrated to  $\pm 0.5$  percent. (Winslow Co., Dept. Sci675, 701 Lehigh Ave., Union, N.J.)

■ **GAS FRACTION COLLECTOR** permits quantitative collection of individual radioactive organic components in a gas chromatography effluent stream. A turntable 8 in. in diameter holds up to 50 cartridges packed with silicone-coated scintillation crystals. Vapors leaving the chromatograph detector pass through a heated gas-injection nozzle and condense on the coated surfaces. The operator controls change of cartridges in accordance with observation of chromatogram peaks. Counting efficiency for carbon-14 in the cartridges is said to be greater than 50 percent. (Packard Instrument Co., Dept. Sci668, P.O. Box 428, La Grange, Ill.)

■ **RADIATION THERMOMETER** uses a mirror system to focus radiation onto an infrared detector. Output of the detector is amplified and presented on a meter or other output indicator. Time constant is said to be 0.002 sec for continuous measurement and 10  $\mu$ sec for transient measurements. Temperature range is 100° to 8000°F. Focusing range is 4 ft to infinity and resolution angle is 0.5 deg. (Radiation Electronics Co., Dept. Sci679, 5600 Jarvis Ave., Chicago 48, Ill.)

■ **RADIANT ENERGY HEAT LAMP** is designed to provide high temperatures for x-ray diffraction, hot-stage microscopy, mechanical testing, and the like. It is said to be capable of heating a specimen to 900°C without mechanical or electrical interaction. (Materials Research Corp., Dept. Sci688, 47 Buena Vista Ave., Yonkers, N.Y.)

■ **CAPACITANCE BRIDGE** is designed for application to noncontact capacitive gaging. The instrument is transistorized and battery-powered. Frequency response is 12 kcy/sec. Provision is made for 60 and 400 cy/sec modulation of the bridge carrier. Sensitivity is 3.5 volt/pf with 10-ft cable and 0.9 volt/pf with 30-ft cable. Dimensions are 6 by 4.5 by 3.5 in. (Decker Corp., Dept. Sci676, 45 Monument Rd., Bala Cynwyd, Pa.)

■ **CHLORIDE-ION ANALYZER** continuously and automatically monitors Cl<sup>-</sup> in aqueous solutions in three standard ranges: 0.1 to 10, 1 to 1000, or 10 to 10,000 parts per million. Measured values may be read directly or may be recorded. The instrument uses a silver-silver chloride electrode and is compensated automatically for temperature effects from 0 to 100°C. Accuracy is said to be  $\pm 5$  percent of total Cl<sup>-</sup> in most applications. (Beckman Scientific and Process Instruments Division, Dept. Sci677, Fullerton, Calif.)

JOSHUA STERN  
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