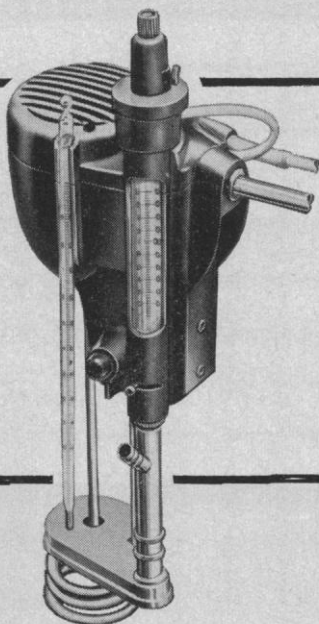


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RALPH W. BURHOE  
*American Academy of Arts and Sciences, Boston, Massachusetts*

### Forthcoming Events

#### April

17-20. American **Astronomical Soc.**, meeting, Tucson, Ariz. (P. M. Routly, 265 Fitz Randolph Rd., Princeton, N.J.)

17-20. American **Geophysical Union**, annual, Washington, D.C. (AGU, 1515 Massachusetts Ave., NW, Washington 5, D.C.)

17-20. German Soc. of **Surgery**, 80th meeting, Munich. (E. Derra, Chirurgische Klinik der Medizinischen Akademie, Moorenstr. 5, Düsseldorf, Germany)

17-21. Man, **Technology, and Medicine in Nuclear and Space Age**, 3rd intern. congr., Rome, Italy. (A. J. Shneiderov, 1945 Calvert St., NW, No. 44, Washington 9)

18. Society of **Plastics Engineers**, regional technical conf., Syracuse, N.Y. (R. R. Collis, c/o Joseph Cashier & Co., Inc., 810 E. Water St., Syracuse)

18-20. **Neurosurgery**, 2nd European congr., Rome, Italy. (B. Guidetti, Viale Università 30, Rome)

18-20. **Stereology**, 1st intern. congr., Vienna, Austria. (Vienna Medical Acad., Alserstrasse 4, Vienna 9)

18-21. Radiology in **Otolaryngology**, intern. symp., Bordeaux, France. (G. Guilen, 45, cours du Marechal Foch, Bordeaux)

20. New Jersey **Acad. of Science**, annual, Glassboro, N.J. (H. L. Silverman, 361 Highland Ave., Newark 4, N.J.)

21-24. **Rare Earth**, conf., Grand Bahama Island. (K. S. Vorres, Dept. of Chemistry, Purdue Univ., Lafayette, Ind.)

21-25. International College of **Surgeons**, North American Federation, annual, Los Angeles, Calif. (W. F. James, 1516 Lake Shore Dr., Chicago 10, Ill.)

22-24. Institute of the **Aerospace Sciences**, Dallas, Tex. (R. R. Dexter, 2 E. 64 St., New York 21)

22-24. American **Oil Chemist Soc.**, Toronto, Ont., Canada. (K. F. Matil, Swift & Co., Packers and Exchange Ave., Chicago 9, Ill.)

22-24. **Biomedical Engineering**, 3rd symp., San Diego, Calif. (J. H. McLeod, Program Committee, 8484 La Jolla Shores Dr., La Jolla, Calif.)

22-25. American **Physical Soc.**, Wash-

## LOW-LEVEL IRRADIATION

Editor: Austin M. Brues

A symposium organized by the AAAS Section on Zoological Sciences, cosponsored by the U.S. Atomic Energy Commission and the Division of Biological and Medical Research of the Argonne National Laboratory.

Public debate on global fallout has been acrimonious because scientific facts about radiation and human implications regarding nuclear warfare have become confused. Scientists have consequently been thought guilty of ignorance or of partisanship. The Symposium on Low-Level Irradiation deals in a considered way with the many points of view that have brought this about and indicates possible solutions.

Scientific Background: Introduction—National and Artificial Radiation Background of Man—Meteorological Factors and Fallout Distribution—Genetic Effects—Somatic Effects

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ington, D. C. (K. K. Darrow, APS, Columbia Univ., New York 27)

22-26. **Radioisotopes and Radiation** in Plant and Animal Insect Control, intern. symp., Athens, Greece. (J. H. Kane, Intern. Conferences Branch, Div. of Special Projects, U.S. Atomic Energy Commission, Washington 25)

22-27. American Acad. of **Neurology**, Minneapolis, Minn. (C. A. Kane, 80 E. Concord St., Boston, Mass.)

23-25. Electronic Processes in **Dielectric Liquids**, Durham, England. (Administration Assistant, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

24-26. German Soc. of **Hygiene and Microbiology**, Würzburg. (W. Herrmann, Städtischen Krankenanstalten, Robert Koch-Haus, Essen, Germany)

24-26. Institute of **Radio Engineers**, regional conf., San Diego, Calif. (E. Herz, 4444 Mt. Castle Ave., San Diego 17)

24-28. German **Roentgen** Congr., 44th, Baden-Baden, Germany. (H. Lossen, GRC, Universitäts-Strahleninstitut, Langenbeckstr. 1, Mainz, Germany)

25-27. Mississippi Acad. of **Sciences**, University. (C. Q. Sheely, Dept. of Chemistry, Mississippi State College, State College)

25-27. Ohio Acad. of **Science**, Wilberforce. (G. W. Burns, 505 King Ave., Columbus 1, Ohio)

25-27. **Population** Assoc. of America, Philadelphia, Pa. (P. C. Glick, Bureau of the Census, Washington 25)

25-27. West Virginia Acad. of **Science**, Buckhannon. (J. A. Duke, S.J., Dept. of Chemistry, Wheeling College, Wheeling, W. Va.)

25-28. Association of **Clinical Scientists**, Louisville, Ky. (R. P. MacFate, 54 W. Hubbard St., Chicago 10, Ill.)

26-27. American **Mathematical** Society, University Park, N.M. (AMS, 190 Hope St., Providence 6, R.I.)

26-27. American Assoc. of **University Professors**, San Francisco, Calif. (W. P. Fidler, AAUP, 1785 Massachusetts Ave., NW, Washington 6)

26-27. Illinois State Acad. of **Science**, Carbondale. (C. L. Kanatzar, MacMurray College, Jacksonville, Ill.)

26-27. South Dakota Acad. of **Science**, Rapid City. (T. Van Bruggen, State Univ. of South Dakota, Vermillion)

27. American Soc. for **Experimental Pathology**, Atlantic City, N.J. (K. M. Brinkhous, Dept. of Pathology, Univ. of North Carolina, Chapel Hill)

27. Clinical and Diagnostic Aspects of **Enzyme Multiplicity**, colloquium, Ghent, Belgium. (R. J. Wieme, Laboratory of the Medical Clinic, Pasteurdreef 2, Ghent)

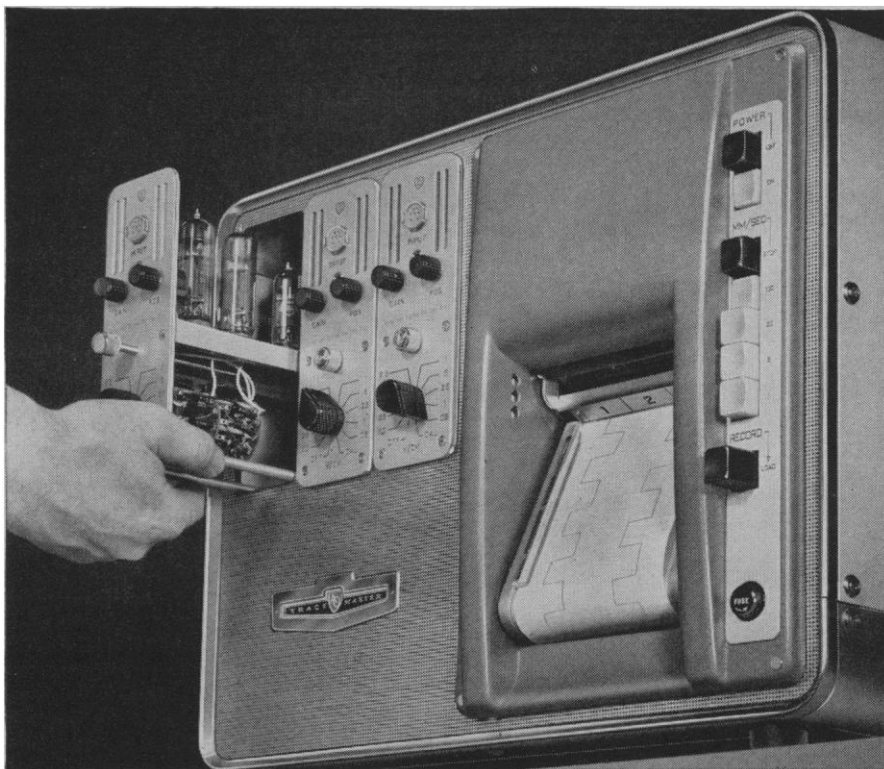
27-28. American **Psychosomatic** Soc., 20th, Atlantic City, N.J. (APS, 265 Nassau Rd., Roosevelt, N.Y.)

27-2. American **Ceramic** Soc., Pittsburgh, Pa. (C. S. Pearce, ACS, 4055 N. High St., Columbus 14, Ohio)

28-3. American Assoc. of **Cereal Chemists**, Minneapolis, Minn. (C. L. Brooke, Merck & Co., Rahway, N.J.)

28-29. **Electron Beam Technology**, 5th intern. symp., Boston, Mass. (J. R. Morley, Alloy Electronics Corp., 35 Cambridge Pkwy., Cambridge 42, Mass.)

29-30. **Combustion** Inst., Western States



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29-1. International Acad. of **Pathology**, 52nd, Cincinnati, Ohio. (F. K. Mostofi, Armed Forces Inst. of Pathology, Washington 25)

29-2. U.S. Natl. Committee, Intern. **Scientific Radio** Union, annual, Washington, D.C. (Miss J. Hannaum, Natl. Acad. of Sciences, 2101 Constitution Ave., NW, Washington 25)

29-3. Society of **Photographic Scientists and Engineers**, annual, Atlantic City, N.J. (D. L. Castellini, 98 Leland Terrace, New Shrewsbury, N.J.)

#### May

1-3. American Assoc. for **Contamination Control**, natl., Boston, Mass. (AACC, 6 Beacon St., Suite 626, Boston 8)

1-3. **Polymer Science and Technology**, conf., London, England. (J. N. Radcliffe, Plastics Inst., 6 Mandeville Pl., London, W.1)

1-4. **American Film Festival**, New York, N.Y. (Educational Film Library Assoc., 250 W. 57 St., New York 19)

2-3. **Human Factors in Electronics**, 4th annual symp., Washington, D.C. (F. Chernikoff, U.S. Naval Research Laboratory, Code 5124, Washington 25)

2-4. **Kansas Acad. of Science**, Lawrence. (G. A. Leisman, Dept. of Biology, Kansas State Teachers College, Emporia)

2-4. **American Philosophical Assoc.**, Western Div., Columbus, Ohio. (L. E. Hahn, Washington Univ., St. Louis 30, Mo.)

2-4. **Virginia Acad. of Science**, Roanoke. (P. M. Patterson, Hollins College, Hollins College, Va.)

2-5. **Council of Long Island Technical Societies**, exposition of technology and industry, West Hempstead, N.Y. (CLITS, Route 110, Farmingdale, N.Y.)

3. **Astronomy and the Peaceful Uses of Space**, Evanston, Ill. (J. A. Hynek, Astronomy Dept., Northwestern Univ., Evanston)

3-4. **Colorado-Wyoming Acad. of Science**, Fort Collins, Colo. (R. G. Beidleman, Dept. of Zoology, Colorado College, Colorado Springs)

3-4. **Endocrinology**, 2nd intern. congr., London, England. (A. S. Mason, London Hospital, Whitechapel, London, E.1)

3-4. **Minnesota Acad. of Science**, St. Paul. (M. R. Boudrye, 1821 University Ave., St. Paul 4)

3-4. **Nebraska Acad. of Sciences**, Lincoln. (C. B. Schultz, 101 Morrill Hall, Univ. of Nebraska, Lincoln 8)

3-4. **North Dakota Acad. of Science**, Grand Forks. (B. G. Gustafson, University Station, Grand Forks)

3-5. **Protides of the Biological Fluids**, 11th colloquium, Bruges, Belgium. (H. Peeters, St. Jans Hospital, Bruges)

3-5. **Wisconsin Acad. of Sciences, Arts and Letters**, Milwaukee. (T. J. McLaughlin, Univ. of Wisconsin, Milwaukee 11)

5-7. **Biometric Soc.**, eastern North American regional, Cambridge, Mass. (J. Cornfield, School of Public Health, Johns Hopkins Univ., Baltimore, Md.)

5-8. **American Inst. of Chemical Engineers**, Buffalo, N.Y. (F. J. Van Antwerpen, American Inst. of Chemical Engineers, 345 E. 47 St., New York, N.Y.)

22 MARCH 1963

## Letters

### Computers and Human Values

In "The man-computer relationship" [*Science* **138**, 873 (1962)] Johnson and Kobler explore an important but, I believe, derivative problem pertaining to the humane and effective use of computers. The basic problem is: What personal and societal values and operating styles will be rewarding and useful in a civilization whose problems and opportunities are defined by very large

populations, enormous social complexity, and unprecedented rates of technological change, all existing on a scale such that *only* computers will be able to deal with the conceptual models, the data to be processed, and the real-time requirements for action and decisions.

It is very important to talk about preserving a place for individual preferences and purposes when policy decisions are made, but it may well be that our present ideas about the relations of the individual to society are the products of a rapidly vanishing, loosely coupled social environment in which a



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