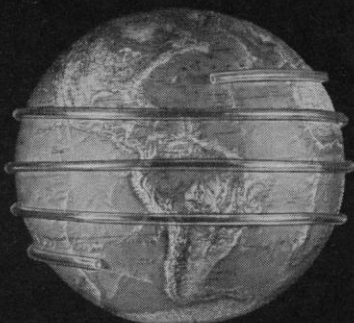


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isotope production has been operating at Orsay since April 1965.

J. Kooi of Euratom discussed their production program centered on Am irradiated in the BR-2 reactor at Mol. After gross processing at Karlsruhe, the transcurium elements will be purified in laboratories placed at Euratom's disposal in the Institute for Nuclear Physics Research at Amsterdam. Studies in nuclear physics and inorganic chemistry include decay scheme studies, extraction chromatographic separation procedures, and electrochemical studies of actinides in molten salts.

C. H. Ice of the Savannah River Laboratory reported on research aimed toward large-scale production of transplutonium elements. Using chemical technology developed in the transplutonium program and a newly-developed high flux mode of production reactor operation, the production of 4.5 kg of  $^{244}\text{Cm}$  was undertaken in 1963. This program should also yield 9.2 kg of  $^{242}\text{Pu}$  and 3.0 kg of  $^{243}\text{Am}$ . If additional  $^{244}\text{Cm}$  is produced by irradiating the  $^{242}\text{Pu}$  and  $^{243}\text{Am}$  intermediates, 5 to 10 mg of  $^{252}\text{Cf}$  per kilogram of  $^{244}\text{Cm}$  would be produced as a by-product. In the high-flux mode, one of the large reactors at SRL was operated at fluxes up to  $6 \times 10^{15}$  neutrons/cm<sup>2</sup>. During the program, 520 grams of  $^{242}\text{Pu}$  was irradiated to produce about 2 mg of  $^{252}\text{Cf}$  and the associated transplutonium elements. SRL experiments are designed to measure cross sections of  $^{252}\text{Cf}$  precursors. Calculations indicate that the production of  $^{252}\text{Cf}$  in a resonance reactor may be increased 100-fold over that in a highly thermalized flux. From this, one can project the possibility of producing hundreds of grams of  $^{252}\text{Cf}$  per year at a cost that would make a variety of applications attractive. The pioneering work in Mössbauer spectroscopy of the actinides has been carried out at SRL with the first observations of the effect in  $^{237}\text{Np}$  and  $^{231}\text{Pa}$ .

D. Cohen discussed the transplutonium chemistry program at Argonne National Laboratory, mentioning reduction of actinide oxides in fused chlorides to the metals; Mössbauer studies on neptunium compounds; absorption spectroscopy; extraction chromatography with a quaternary amine of Am-Cm and Es-Cf; electrical resistivity and Hall effect studies on neptunium and americium metal; and the curium-oxygen system.

A. M. Friedman reported the following topics under study in nuclear phys-

ics at Argonne National Laboratory: fission kinetics in the  $^{240}\text{Pu}$  ( $\alpha, \alpha'$  fission) and  $^{239}\text{Pu}$  (d,p fission) reactions, alpha-particle spectra of  $^{254}\text{Es}$  and  $^{255}\text{Es}$ , production of  $^{253}\text{Md}$  and  $^{243}\text{Cf}$  in ( $^3\text{He}, xn$ ) reactions, extensive studies of states in odd-A nuclei between  $^{229}\text{Th}$  and  $^{249}\text{Cm}$  as observed in (d,p) and (d,t) reactions.

M. Givon of the Israeli Transuranium group reported a comparison of the spectrophotometric and thermodynamic complex constants for the systems Np, Pu, Am-halide, and nitrate.

The Symposium was sponsored by the Oak Ridge National Laboratory. D. E. Ferguson served as program chairman.

O. L. KELLER, JR.

Chemistry Division,  
Oak Ridge National Laboratory,\*  
Oak Ridge, Tennessee 37831

#### Note

\* Operated by Union Carbide Corporation for the U.S. Atomic Energy Commission.

## Calendar of Events

### Courses

**Actinomycetes and Mycology.** Indiana State Univ., 12-16 June. Oriented towards industrial problems. Limited enrollment. Fee, \$125. (F. M. Rothwell, Dept. of Life Sciences, Indiana State Univ., Terre Haute 47809)

**Bacteriology and Virology.** Indiana State Univ., 5-9 June. Oriented towards industrial problems. Limited enrollment. Fee, \$125. (F. M. Rothwell, Dept. of Life Sciences, Indiana State Univ., Terre Haute 47809)

**Basic Infrared Spectroscopy.** Fisk Univ., 14-19 Aug. Designed to introduce beginners to theory and applications of subject. Enrollment limited to 50 participants. Fee, \$150. Partial tuition fellowships available for academic personnel. (Director, Fisk Inst., Box 8, Fisk Univ., Nashville, Tenn. 37203)

**Behavior of Liquid Propellants in Space Vehicles 805.9.** Univ. of California, Los Angeles, 19-30 June. Designed for control system and propulsion system design engineers concerned with design of advanced launch vehicles and missiles. Prerequisite: Bachelor's degree or equivalent in science or engineering. *Deadline: 12 June.* Fee, \$300. (Engineering Extension, Room 6266, Boelter Hall, Univ. of California, Los Angeles 90024)

**Gas Chromatography.** Fisk Univ., 14-18 Aug. Enrollment limited to 50 participants. Fee, \$150. Partial tuition fellowships available for academic personnel. (Director, Fisk Inst., Box 8, Fisk Univ., Nashville, Tenn. 37203)

**Immuno-serological Methods.** Mississippi State Univ., 1-7 June. Orientation towards industrial problems. Enrollment limited to 20 participants. Fee, \$125. (J.

## Invertebrate Zoology

By PAUL A. MEGLITSCH, Drake University

"Both in wealth of detail and in the balance and fairness of its account, citing fact, theory, and diverse interpretations, Meglitsch's *Invertebrate Zoology* is far in advance of any single volume in English. It will surely occupy an honored place on the zoologist's bookshelf for years to come."—Marvin C. Meyer, University of Maine

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## Genetics

*Second Edition*

By ROBERT C. KING, Northwestern University

In the second printing of this text changes include the addition of two new figures, one showing the complete nucleotide sequence of an alanine transfer RNA isolated from yeast and the other indicating the distinction between two pro-oocytes and fourteen pro-nurse cells on the basis of their nuclear morphology. Of major importance to the work is the inclusion of a *Drosophila* laboratory exercise which shows students how to perform breeding experiments. Genetic code designations for amino acids have been added to Fig. 2.1. Other revisions have been made where necessary.

1965 (Second Printing, February 1967)  
450 pp. 160 illus. \$9.50

## Inorganic Chemistry

By C. S. G. PHILLIPS and R. J. P. WILLIAMS, Oxford University

Vol. I Non-Metals  
1965 700 pp. illus. \$8.00  
Vol. II Metals  
1966 696 pp. illus. \$8.00

## Technology in Western Civilization

Vol. I: The Emergence of Modern Industrial Society—Earliest Times to 1900  
*Edited by* MELVIN KRANZBERG, Case Institute of Technology, and CARROLL W. PURSELL, JR., University of California, Santa Barbara

1967 816 pp. illus. \$8.50

## The Second Law:

*An Introduction to Classical and Statistical Thermodynamics*

By HENRY A. BENT, University of Minnesota

1965 442 pp. illus. paper \$3.75 cloth \$8.00

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B. G. Kwapinski, Mississippi State Univ., State College 39762)

**Infrared Spectroscopy**, 2nd session. Fisk Univ., 21–25 Aug. Enrollment limited to 50 participants. Fee, \$150. Partial tuition fellowships available for academic personnel. (Director, Fisk Inst., Box 8, Fisk Univ., Nashville, Tenn. 37203)

**Infrared Spectroscopy**. Univ. of California, Los Angeles, 10–21 July. Intended for chemists, biochemists, biologists, and engineers. Fee, \$300. (R. E. Garrels, Physical Sciences Extension, Room 6532, Boelter Hall, Univ. of California, Los Angeles 90024)

**Interactive Time-sharing Systems: Hardware and Software**. Univ. of California, Los Angeles, 19–30 June. Intended for managers of time-sharing installations, systems programmers, and system users. Fee, \$300. (R. E. Garrels, Physical Science Extension, Room 6532, Boelter Hall, Univ. of California, Los Angeles 90024)

**On-Line Computer Control Systems**. Univ. of California, Los Angeles, 10–21 July. Designed for engineers engaged in development and application of on-line computer control systems. *Deadline: 3 July*. (Engineering Extension, Room 6266, Boelter Hall, Univ. of California, Los Angeles 90024)

**Practical Astrodynamics**. Univ. of California, Los Angeles, 10–21 July. Designed for persons interested in new approaches to astrodynamics including concepts and methods for solving current and future problems. Fee, \$300. (R. E. Garrels, Physical Sciences Extension, Room 6532, Boelter Hall, Univ. of California, Los Angeles 90024)

**Probability and Statistics**. Univ. of California, Los Angeles, 19–30 June. Includes basic concepts of probability, recognition of probabilistic and statistical problems and translation into probabilistic language, hypothesis concerning parameters, and statistics. Fee, \$300. (R. E. Garrels, Physical Science Extension, Room 6532, Boelter Hall, Univ. of California, Los Angeles)

**Seminar for Managers of Technical Information**. Univ. of Iowa, 4–8 June. Designed for editors or supervisors of technical writers; consultants of information storage, retrieval, processing, and transmission; problem solving experts in information and communication. Fee, \$250. (C. A. Andrews, The Seminar, 207 Engineering Bldg., Univ. of Iowa, Iowa City 52240)

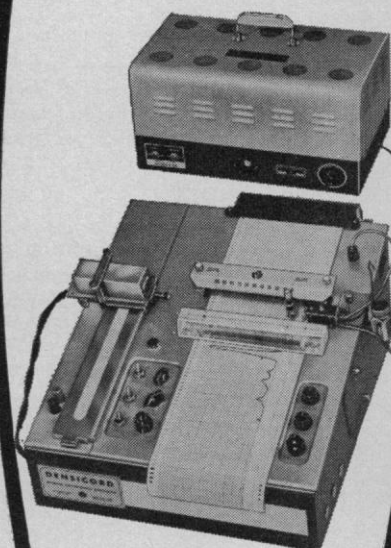
**Seventh Annual Summer Institute in Dynamical Astronomy**. Purdue Univ., 19 June–7 July. Intended for science faculty and graduate students. Enrollment limited to 80 participants. (H. Pollard, Div. of Mathematical Sciences, Purdue Univ., Lafayette, Ind. 47907)

**Theory and Applications of Modern Optics**. Univ. of California, Los Angeles, 17–28 July. Designed for those in research, development, or education related to modern optics. Fee, \$300. (R. E. Garrels, Physical Sciences Extension, Room 6532, Boelter Hall, Univ. of California, Los Angeles 90024)

**Ultra-violet-Visible Spectroscopy**. Fisk Univ., 21–25 Aug. Enrollment limited to 50 participants. Fee, \$150. Partial tuition fellowships available for academic personnel. (Director, Fisk Inst., Box 8, Fisk Univ., Nashville, Tenn. 37203)

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**Variational Theory and Optimal Control Theory.** Univ. of California, Los Angeles, 19-30 June. Designed for engineers, physical scientists, mathematicians, and those interested in optimization. Fee, \$300. (R. E. Garrels, Physical Sciences Extension, Room 6532, Boelter Hall, Univ. of California, Los Angeles 90024)

## National Meetings

### May

22-25. **Institute of Electrical and Electronics Engineers**, joint technical conf., Cleveland, Ohio. (Office of Technical Activities Board, The Institute, 345 E. 47 St., New York 10017)

22-25. **New Aids for Management Decision Making**, Washington, D.C. (Director, Center for Technology and Administration, American Univ., 2000 G St., NW, Washington, D.C.)

22-25. **URSI-IEEE**, spring mtg., Ottawa, Ont., Canada. (R. S. Rettle, Natl. Research Council, Ottawa 2)

22-26. **Drug Metabolism**, 2nd workshop, George Washington Univ., Washington, D.C. (Dept. of Pharmacology, School of Medicine, George Washington Univ., 1337 H St., NW, Washington, D.C. 20005)

23-25. **National Tuberculosis Assoc. and American Thoracic Soc.**, annual mtg., Pittsburgh, Pa. (NTA, 1740 Broadway, New York 10019)

24-27. **Teratology Soc.**, 7th annual mtg., Estes Park, Colo. (M. D. Runner, Inst. for Developmental Biology, Univ. of Colorado, Boulder 80302)

25-26. **Drug Information Assoc.**, 3rd annual, Philadelphia, Pa. (P. de-Haen, The Association, 11 W. 42 St., New York 10036)

26-27. **Surface Physics**, 5th annual symp., Washington State Univ., Pullman. (E. E. Donaldson, Dept. of Physics, Washington State Univ., Pullman 99163)

29-1. **Special Libraries Assoc.**, New York, N.Y. (B. M. Woods, The Association, 31 E. 10 St., New York 10003)

29-2. **Congress of Canadian Engineers**, Montreal, P.Q., Canada. (Office of Technical Activities Board, Inst. of Electrical and Electronic Engineers, 345 E. 47 St., New York 10017)

31-2. **American Soc. for Quality Control**, 21st annual technical conf. and exhibit, Chicago, Ill. (R. W. Shearman, The Society, 161 W. Wisconsin Ave., Milwaukee, Wis. 53203)

31-2. **Instrument Soc. of America**, 13th natl. analysis instrumentation symp., Los Angeles, Calif. (The Society, 530 William Penn Pl., Pittsburgh, Pa. 15219)

### June

1-2. **Computer Applications in the Earth Sciences**, 2nd colloquium, Lawrence, Kan. (R. F. Treece, University Extension, Univ. of Kansas, Lawrence 66044)

1-2. **Industrial Water and Waste**, 7th conf., Austin, Tex. (J. F. Malina, Jr., 305 Engineering Lab. Bldg., Univ. of Texas, Austin 78712)

1-3. **Applied Diving Physiology**, Univ. of California, San Francisco Extension

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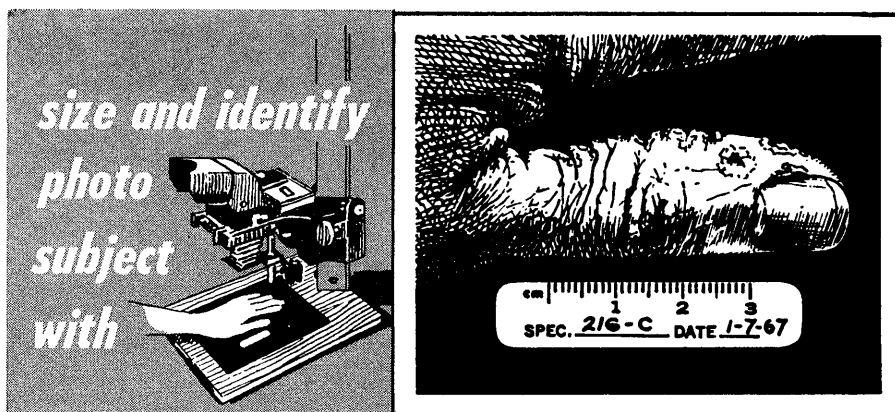
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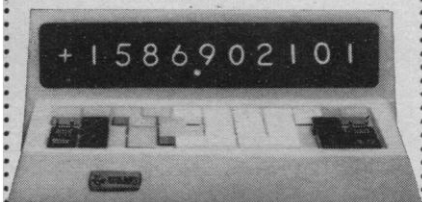
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Center. (Letters and Science Extension, Univ. of California, Berkeley 94720)

2-3. **Equine Bone and Joint Diseases**, symp., Ithaca, N.Y. (H. F. Schryver, Dept. of Large Animal Medicine, New York State Veterinary College, Cornell Univ., Ithaca 14850)

4-7. **Tissue Culture Assoc.**, annual mtg., Philadelphia, Pa. (L. Hayflick, Wistar Inst., 36th and Spruce Sts., Philadelphia 19104)

4-9. **American Water Works Assoc.**, annual conf., Atlantic City, N.J. (R. J. Faust, The Association, 2 Park Ave., New York 10017)

4-9. **Underwater Acoustics**, seminar, Pennsylvania State Univ., University Park. (Conf. Center, J. Orvis Keller Bldg., Pennsylvania State Univ., University Park 16802)

4-11. **Lubrication in Nuclear Applications**, symp., American Soc. of Mechanical Engineers, Miami Beach, Fla. (Meetings Manager, The Society, 345 E. 47 St., New York 10017)

5. **Integrated Circuit Manufacturing**, symp., New York, N.Y. (Miss B. S. Hines, Registration Coordinator, 7830 Hasbrook Ave., Philadelphia, Pa. 19111)

5-7. **The New Thrust Seaward**, Marine Technology Soc., annual conf. and exhibit, San Diego, Calif. (Conference Management Organization, Inc., Colonial Bldg., 105 N. Virginia Ave., Falls Church, Va. 22046)

5-7. **Recovery and Repair Mechanisms in Radiobiology**, Brookhaven Natl. Lab., Upton, N.Y. (D. G. Baker, Dept. of Biology, Brookhaven Natl. Lab., Upton 11973)

5-8. **Society for Economic Botany**, 8th annual, Coral Gables, Fla. (Miss J. F. Morton, The Society, Morton Collectanea, Univ. of Miami, Box 8204, Coral Gables)

6-7. **Deposition of Thin Films by Sputtering**, 2nd symp., Rochester, N.Y. (R. D'Aprix, Sputtering Program, CVC, Dept. T, 1775 Mt. Read Blvd., Rochester 14603)

6-9. **Laser Engineering and Applications**, conf., Washington, D.C. (L. Winner, 152 W. 42 St., New York 10036)

8-9. **Post Irradiation Recovery Kinetics**, symp., Bethesda, Md. (M. F. Canning, Information Div., Technical Information and Services Dept., Armed Forces Radiobiology Research Inst., Defense Atomic Support Agency, Bethesda 20014)

8-10. **Fourth Pacific Northwest Plastics Workshop**, Spokane, Wash. (R. Raff, Research Div., College of Engineering, Washington State Univ., Pullman 99163)

11-14. **Apollo and Beyond**, American Astronautical Soc., Huntsville, Ala. (S. S. Hu, Northrop Space Labs., P.O. Box 1484, Huntsville)

11-15. **American Nuclear Soc.**, 12th annual, San Diego, Calif. (J. E. Wilkins, Jr., General Atomic, P.O. Box 608, San Diego 92112)

11-15. **Industrial Pharmaceutical Research**, 9th annual natl. conf., Land O' Lakes, Wis. (A. P. Lemberger, Extension Services in Pharmacy, 190 Pharmacy Bldg., Univ. of Wisconsin, Madison 53706)

11-16. **Air Pollution Control Assoc.**, 60th annual mtg., Cleveland, Ohio. (Seward Covert & Associates, 1059 Leader Bldg., Cleveland 44114)

11-16. **Medical Library Assoc.**, annual mtg., Miami, Fla. (The Association, 919 N. Michigan Ave., Chicago, Ill.)



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12-14. American Neurological Assoc., 92nd annual mtg., Atlantic City, N.J. (M. D. Yahr, The Association, 710 W. 168 St., New York 10032)

12-15. Society for Industrial and Applied Mathematics, Washington, D.C. (W. J. Jameson, Jr., Collins Radio Co., 120-09, Cedar Rapids, Iowa 52406)

13-14. Electroexplosive Devices, 5th symp., Philadelphia, Pa. (G. Cohn, Senior Staff Engineer, Franklin Inst. Research Lab., Philadelphia 19103)

13-15. American Astronomical Soc., Yerkes Observatory, Williams Bay, Wis. (G. C. McVittie, Univ. of Illinois Observatory, Urbana 61803)

13-16. Conjugate Point Symp., Boulder, Colo. (Aeronomy Lab. 540.03, Environmental Science Services Administration, Inst. for Telecommunication Sciences and Aeronomy, Boulder 80302)

13-16. Vacuum Metallurgical Conf., 10th annual, New York, N.Y. (E. L. Foster, Materials Engineering Dept., Battelle Memorial Inst., 505 King Ave., Columbus, Ohio)

14-16. Densitometry, seminar, Chicago, Ill. (B. Kettinger, News Service Office, P.O. Box 3404, Rochester Inst. of Technology, Rochester, N.Y. 14614)

14-17. Modern Computer Analysis of Complex Social Science Data Bases, Council of Social Science Data Archives, annual mtg., Los Angeles, Calif. (W. A. Glaser, Bureau of Applied Social Research, 605 W. 115 St., New York 10025)

14-17. Speech-Analyzing Aids for the Deaf, conf., Washington, D.C. (J. M. Pickett, Hearing and Speech Center, Gallaudet College, Washington, D.C.)

15-16. American Rheumatism Assoc., New York, N.Y. (Miss M. Walsh, The Association, 1212 Ave. of the Americas, New York)

15-16. Soil, Water and Suburbia, Dept. of Agriculture and Dept. of Housing and Urban Development, Washington, D.C. (S. Kasper, Room 1201, Dept. of Housing and Urban Development, 1430 K St., NW, Washington, D.C.)

15-17. American Assoc. of Physics Teachers, summer mtg., Canton, N.Y. (A. B. Arons, Physics Dept., Amherst College, Amherst, Mass.)

15-17. Symposium on High Energy Radiation Therapy Dosimetry, American Assoc. of Physicists in Medicine, New York, N.Y. (L. H. Lanzl, Dept. of Radiology, Univ. of Chicago, 950 E. 59 St., Chicago, Ill. 60637)

17-18. Academy of Psychosomatic Medicine, 4th symp. on anxiety and depression, Atlantic City, N.J. (E. Dunlop, 150 Emory St., Attleboro, Mass. 02703)

17-18. American Diabetes Assoc., Atlantic City, N.J. (J. R. Connelly, The Association, 18 E. 48 St., New York 10017)

18-21. Botanical Soc. of America, Northeastern Section, summer field mtg., Tuxedo, N.Y. (R. K. Zuck, Dept. of Botany, Drew Univ., Madison, N.J.)

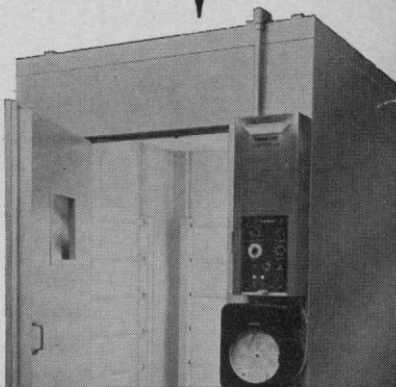
18-22. American Medical Assoc., 116th annual conv., Atlantic City, N.J. (The Association, 535 N. Dearborn St., Chicago, Ill. 60610)

18-22. Health Physics Soc., 12th annual mtg., Washington, D.C. (J. C. Villforth, Radiological Health Lab., 1901 Chapman Blvd., Rockville, Md.)

18-22. Society for Investigative Derma-

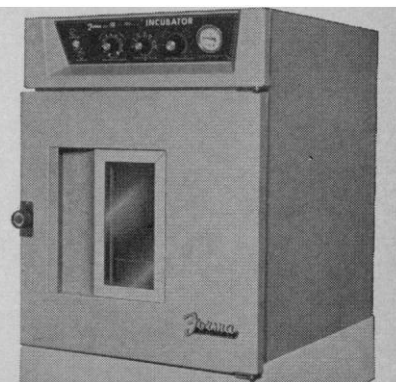
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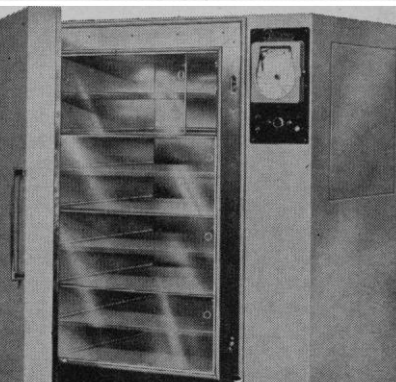
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tology, Atlantic City, N.J. (G. W. Hambrick, Jr., The Society, Johns Hopkins Hospital, 601 N. Broadway, Baltimore, Md. 21205)

18-23. American Soc. of Ichthyologists and Herpetologists, annual mtg., San Francisco, Calif. (W. I. Follett, California Acad. of Sciences, Golden Gate Park, San Francisco 94118)

19. Scombroid Phylogeny: Ideas and Approaches, symp. of American Soc. of Ichthyologists and Herpetologists, San Francisco, Calif. (B. J. Rothschild, Tuna Ecology Program, Bureau of Commercial Fisheries, P.O. Box 3830, Honolulu, Hawaii 96812)

19-21. Automatic Data Processing Systems in Local Government, 3rd annual conf., New York, N.Y. (H. Sellin, School of Continuing Education, New York Univ., New York 10003)

19-21. Colloid, 41st natl. symp., Buffalo, N.Y. (P. Becher, Chemical Research Dept., Atlas Chemical Industries, Wilmington, Del. 19899)

19-21. Heat Transfer and Fluid Mechanics Inst., La Jolla, Calif. (D. B. Olfe, Dept. of Aerospace and Mechanical Engineering Sciences, Univ. of California at San Diego, La Jolla)

19-21. Microelectronics, symp., St. Louis, Mo. (R. Pellin, Inorganic Chemicals Div., Monsanto Co., 800 N. Lindbergh Blvd., St. Louis 63166)

19-22. American Soc. for Engineering Education, 75th annual mtg., East Lansing, Mich. (L. Winner, 152 W. 42 St., New York 10036)

21-23. Modern Titrimetry, 20th annual summer symp. on analytical chemistry, Claremont, Calif. (A. L. Beilby, The Symposium, Dept. of Chemistry, Pomona College, Claremont 91713)

21-25. Society of Women Engineers, 17th annual conv., Washington, D.C. (Mrs. J. R. Fisher, 12501 Connecticut Ave., Silver Spring, Md. 20906)

21-30. Combustion-Generated Air Pollution, mtg., Berkeley, Calif. (Engineering Extension, 2223 Fulton St., Berkeley 94720)

22-23. Animal Reproduction, 8th symp., Urbana, Ill. (Short Courses and Conferences, 116 Illini Hall, Champaign, Ill. 61820)

22-24. American Soc. of Enologists, annual mtg., Santa Barbara, Calif. (The Society, Box 411, Davis, Calif.)

22-25. American Assoc. of Bioanalysts, mtg., Detroit, Mich. (D. Birenbaum, The Association, 805 Ambassador Bldg., St. Louis, Mo. 63101)

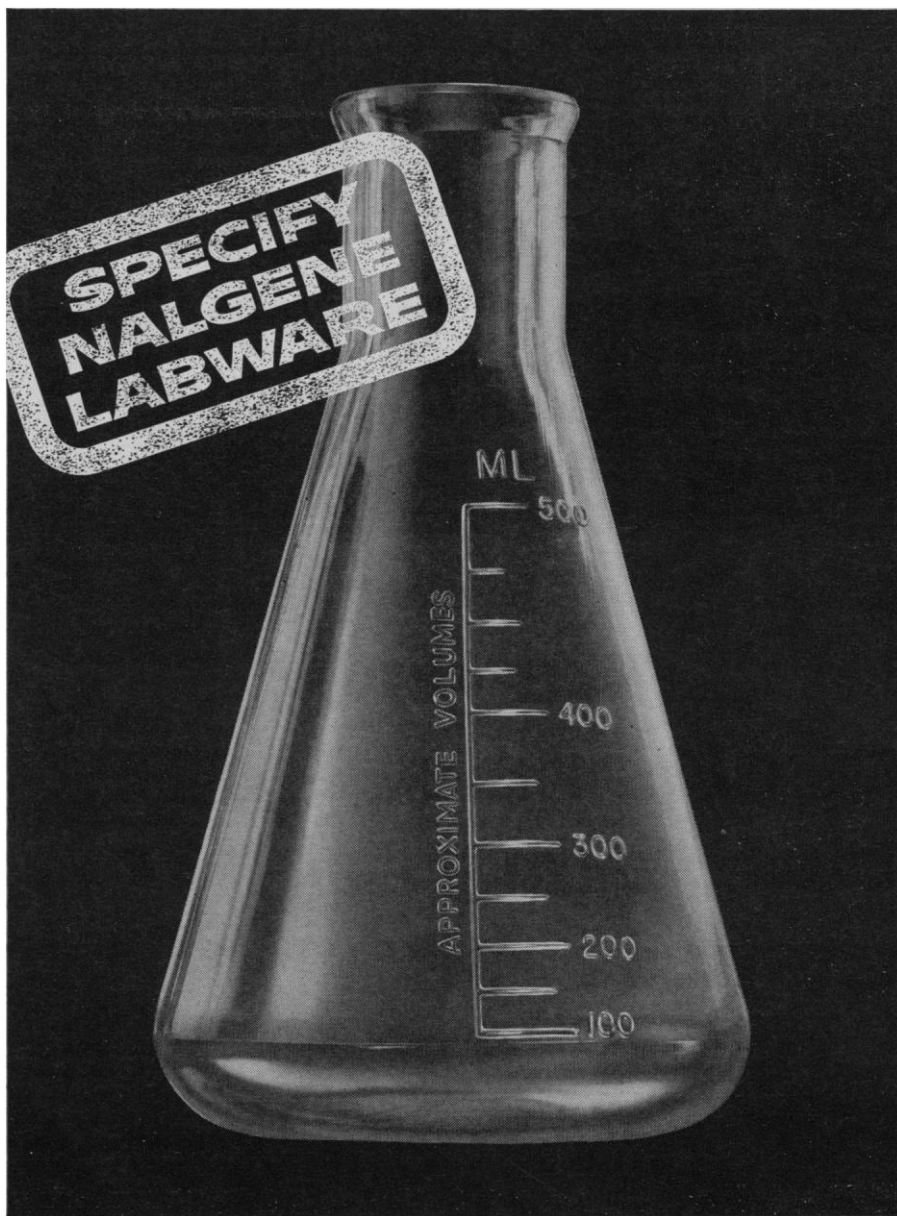
25-28. American Dairy Science Assoc., Ithaca, N.Y. (C. Cruse, The Association, 903 Fairview Ave., Urbana, Ill. 61801)

25-28. American Leather Chemists Assoc., Lake Placid, N.Y. (W. T. Roddy, Executive Secretary, The Association, Univ. of Cincinnati, Cincinnati, Ohio 45221)

25-30. American Soc. for Testing and Materials, 70th annual mtg., Boston, Mass. (H. H. Hamilton, Public Relations, The Society, 1916 Race St., Philadelphia, Pa. 19103)

26-27. American Soc. of Pharmacognosy, annual mtg., Ann Arbor, Mich. (A. G. Paul, College of Pharmacy, Univ. of Michigan, Ann Arbor)

26-30. Workshop on Graduate Training



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in **Scientific Writing**, Rockefeller Univ., New York, N.Y. (F. P. Woodford, Rockefeller Univ., New York 10021)

26-8. **Immunology**, summer course. Lake Forest, Ill. (S. Dray, Univ. of Illinois at Medical Center, P.O. Box 6998, Chicago 60680)

28-30. **American Scientific Glassblowers Soc.**, 12th annual symp., Atlanta, Ga. (R. W. Poole, 100 Cedar Lane, Oak Ridge, Tenn. 37832)

28-30. **Joint Automatic Control Conf.**, 8th annual mtg., Philadelphia, Pa. (L. Winner, 152 W. 42 St., New York 10036)

28-30. **Society of Protozoologists**, Toronto, Ont., Canada. (R. W. Hull, Dept. of Biological Sciences, Florida State Univ., Tallahassee, 32306)

29-1. **Navigation** in the Last Third of the 20th Century: Where Do We Stand; What Needs to be Done, Inst. of Navigation, 23rd annual mtg., Washington, D.C. (The Institute, 711 14th St., NW, Suite 912, Washington 20005)

#### International and Foreign Meetings

##### June

2-4. **Plasticity**, intern. mtg., Palermo, Italy. (Istituto di Scienze delle Costruzioni, Univ. of Palermo, Via Maqueda, Palermo)

4-7. **Chemical Inst. of Canada**, 50th natl. conf., Toronto, Ont., Canada. (General Manager, The Institute, 151 Slater St., Ottawa, Ont.)

5-9. **International Commission of Sugar Technology**, 13th general assembly, Falsterbo, Sweden. (J. Henry, 1, rue Aendoren, Tirlemont, Belgium)

5-10. **Northwest Atlantic Fisheries**, intern. commission mtg., Boston, Mass. (L. R. Day, Bedford Inst. of Oceanography, P.O. Box 638, Dartmouth, Nova Scotia, Canada)

6-8. **Building Materials**, intern. conf., Warsaw, Poland. (Secretary, The Conference, Ministry of Building Construction and Materials, Warsaw, Wspolna 2)

7-9. **Industrial Physics**—The Contribution of Government Sponsored Laboratories, Harrogate, England. (Meetings Officer, Inst. of Physics and Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

7-10. **Transplantation Soc.**, 1st intern. congr., Paris, France. (J. Dausset, Hopital Saint Louis, Place du Dr. Fournier, Paris 10<sup>e</sup>)

9-10. **Transfer of Genetic Information** in Protein Synthesis, intern. symp., New York, N.Y. (D. J. Quinn, Public Relations, Miles Laboratories, Elkhart, Ind.)

11-16. **Eutrophication**, intern. symp., Madison, Wis. (G. A. Rohlich, Univ. of Wisconsin, 602 State St., Madison 53706)

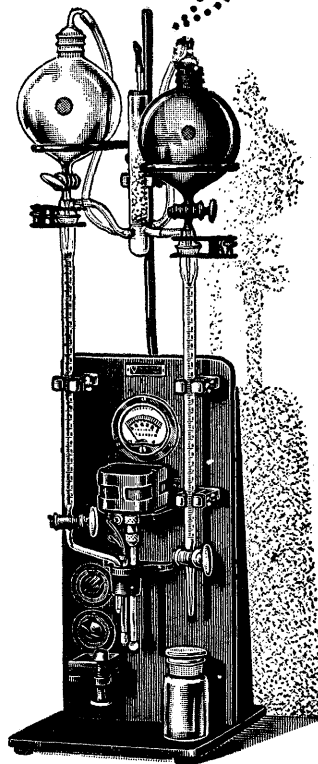
11-14. **Smoking and Health**, 1st intern. congr., New York, N.Y. (J. W. Muckell, Congr. Manager, 54 W. 40 St., New York 10018)

11-14. **Society of Professional Well Log Analysts**, 8th intern. symp., Denver, Colo. (Executive Secretary, The Society, 13507 Tosca, Houston, Tex. 77024)

12-14. **Communications**, intern. conf., Minneapolis, Minn. (R. J. Collins, Dept. of Electrical Engineering, Univ. of Minnesota, Minneapolis 55455)

12-14. **Drug Research**, 1st intern. symp.,

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Montreal, Canada. (Chemical Inst. of Canada, 151 Slater St., Ottawa 4, Ont.)

12-16. **Macromolecular Chemistry**, intern. symp., Brussels, Belgium. (Secretariat, The Symposium, 49, Sq. Marie-Louise, Brussels)

12-17. **Problem of Identification in Automatic Control Systems**, symp., Prague, Czechoslovakia. (V. Strejc, Ustav Teorie Informace a Automatizace, Ceskoslovenska Akademie Ved, Vyshehradská 49, Prague 2)

14-15. **Light and Vision**, intern. symp., Columbus, Ohio. (G. A. Fry, Ohio State Univ., Columbus 43210)

14-16. **Catalysis**, 2nd symp., Hamilton, Ont., Canada. (R. B. Anderson, Dept. of Chemical Engineering, McMaster Univ., Hamilton)

14-16. **Systematic Biology**, intern. conf., Ann Arbor, Mich. (A. G. Kluge, The Conference, Dept. of Zoology, Univ. of Michigan, Ann Arbor 48104)

14-17. **Mechanized Information Storage, Retrieval and Dissemination**, conf., Rome, Italy. (British Computer Soc., 23, Dorset Sq., London, N.W.1, England)

18-24. **Oral Education of the Deaf**, intern. conf., Northampton, Mass. and New York, N.Y. (G. T. Pratt, Clark School for Deaf, Northampton 01060)

18-30. **Algae, Man and the Environment**, intern. symp., Syracuse, N.Y. (D. F. Jackson, Dept. of Civil Engineering, Syracuse Univ., Syracuse 13210)

19-23. **Electronics**, 14th intern. scientific congr., Rome, Italy. (Rassegna Internazionale Elettronica Nucleare e Telerradiocinematografica, Via Crescenzo 9, Rome)

19-23. **Spectroscopy**, 13th intern. colloquium, Ottawa, Ont., Canada. (Secretary, The Colloquium, Natl. Research Council, Ottawa 7)

19-28. **International Commission on Illumination**, Washington, D.C. (L. E. Barrow, Secretary, USNC, c/o National Bureau of Standards, Washington, D.C.)

20-23. **International Data Processing**, conf. and business exhibition, Boston, Mass. (Data Processing Management Assoc., 524 Busse Hwy., Park Ridge, Ill. 60068)

21-29. **ACHEMA 1967**, 15th chemical engineering congr. and exhibition, Frankfurt-am-Main, West Germany. (Deutsche Gesellschaft für chemisches Apparatewesen, Postfach 7746, 6000 Frankfurt (Main), 7)

21-1. **International Plastics Exhibition and Convention**, London, England. (British Plastics, Interplas 67, Dorset House, Stamford St., London, S.E.1)

25-2. **Chemotherapy**, 5th intern. congr., Vienna, Austria. (Sekretariat, Wiener Medizinische Akademie, Alser Strasse 4, 1090 Wien, Austria)

26-30. **Carbonium Ions**, 1st intern. symp. on physical organic chemistry, Athens, Greece. (The Symposium, Dept. of Chemistry, Michigan State Univ., East Lansing 48823; or G. Gregoriou, Nuclear Research Center "Democritos," Aghia Paraskevi, Athens, Greece)

27-4. **Protein Foods and Concentrates**, intern. symp., Mysore, India. (B. L. Amla or T. N. R. Rao, The Symposium, Central Food Technological Research Inst., Mysore 2)

12 MAY 1967

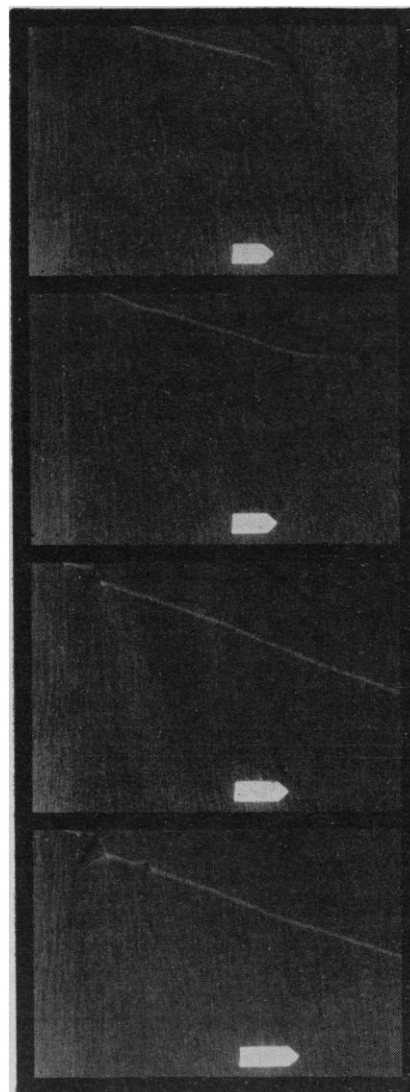


## Magnetic domains made visible by the electron microscope

The magnetic structure of thin films is important in the development of space saving memory cells for computers.

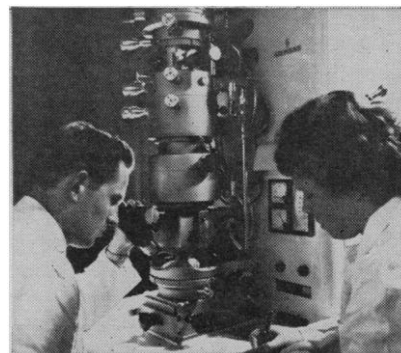
The electron microscope furnishes an inertialess image of magnetic domains with good resolution. The Lorentz Device of the electron microscope, Elmiskop I A applies well defined magnetic fields to the specimen. The dynamic alteration of the domain structure can be recorded with a built-in movie camera. (Complete film available on loan basis).

The stripe shows the movement of domain walls during the magnetization reversal of a Fe/Ni alloy. Another example of the flexibility of Elmiskop I A.



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