

CALENDAR

Information in the calendar is compiled from a file maintained in the PHYSICS TODAY office. Readers are invited to write or telephone for general calendar information beyond what we print. For complete information concerning an entry, readers are advised to consult the contact. The date at the end of each item refers to the issue of PHYSICS TODAY in which the item is listed with more detail than appears in subsequent issues.

ABBREVIATIONS: AAPT, American Association of Physics Teachers; AAS, American Astronomical Society; ACA, American Crystallographic Association; APS, American Physical Society; ASA, Acoustical Society of America; OSA, Optical Society of America; S of R, Society of Rheology; AEC, US Atomic Energy Commission; AFRL, Air Force Cambridge Research Laboratories; AVS, American Vacuum Society; IAEA, International Atomic Energy Agency; IEEE, Institute of Electrical and Electronics Engineers; IPPS, The Institute of Physics and The Physical Society; IUPAP, International Union of Pure and Applied Physics; NBS, National Bureau of Standards; ORNL, Oak Ridge National Laboratory.

CODING of each item is as follows: date subject ☐ HOST ☐
Location (Contact) [submission deadline] PT ref.

◆ new listing ◆ new information

MAY 1968

- 16 Belfer Conference for High-School Physics Teachers ☐ BELFER GRADUATE SCHOOL OF SCIENCE ☐ New York (A. E. Woodruff) 4/68
- 20-22 Microwave Symposium ☐ IEEE ☐ Detroit, Mich. (G. I. Haddad) [1/8] 3/68
- 20-24 Neutron Inelastic Scattering ☐ IAEA ☐ Copenhagen, Denmark (J. Dolnicar) [12/20] 12/67
- 21-24 Annual Meeting ☐ ASA ☐ Ottawa, Canada (E. A. G. Shaw) [2/20] 3/68
- 23, 24 Nuclear Fuel—Exploration to Power Reactors ☐ ATOMIC INDUSTRIAL FORUM, SOUTHERN INTERSTATE NUCLEAR BOARD ☐ Oklahoma City (J. T. Sherman) 4/68
- 25-31 Economics of Nuclear Fuels ☐ IAEA ☐ Gottwaldov, Czechoslovakia (J. H. Kane) [12/15] 1/68
- 27-31 Thermionic Electrical Power Generation ☐ EUROPEAN NUCLEAR ENERGY AGENCY ☐ Stresa, Italy (European Nuclear Energy Agency) [12/15] 10/67

JUNE 1968

- 3-6 Analytical Methods in Mathematical Physics ☐ AIR FORCE OFFICE OF SCIENTIFIC RESEARCH ☐ Indiana U., Bloomington, Ind. (Symposium on Analytical Methods) [5/1] 4/68
- 3-7 ◆ Atomic Physics ☐ NEW YORK U. ☐ New York (V. W. Hughes) by invitation [4/15] 11/67
- 5-8 • Annual Meeting ☐ CANADIAN ASSOCIATION OF PHYSICISTS ☐ Calgary, Alberta (M. P. Bachynski, Research Laboratories, RCA Victor Co, Ltd., 1001 Lenoir St., Montreal, Canada) [3/15] 5/68
- 9-12 • Cryogenic Technology ☐ ILLINOIS INSTITUTE OF TECHNOLOGY, CRYOGENIC SOCIETY OF AMERICA ☐ Chicago (H. Weinstock, CRYO-68, Illinois Institute of Technology, Chicago, Ill. 60616) 5/68

Topics: earth, medical, solid-state and theoretical physics, sessions in applied and plasma physics.

These symposia to be held in conjunction with the fourth annual cryogenic exposition will include heat transfer and insulation, heat exchangers, safety, vacuum technology, liquid hydrogen, medical cryogenics and cryobiology,

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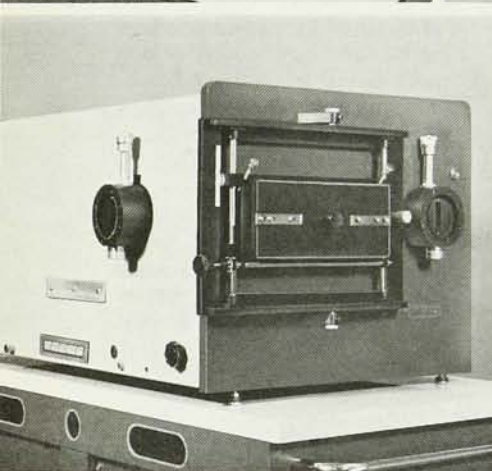
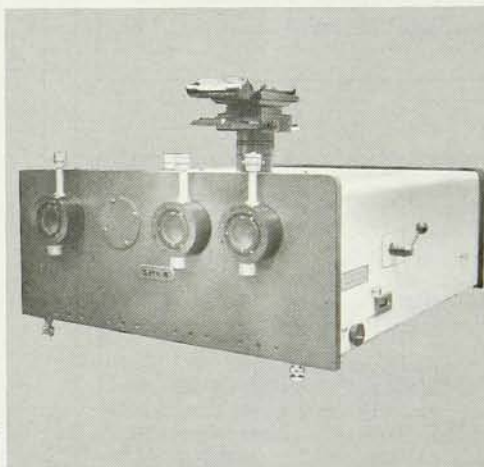


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9-13 **Radioisotopes** ☐ AMERICAN NUCLEAR SOCIETY ☐ Toronto (D. G. Hurst) [1/31] 1/68

10-13 **Vacuum Metallurgy** ☐ AVS ☐ Beverly Hills, Calif. (L. W. Sink) 11/67

10-14 • **Annual Microscopy Symposium** ☐ MCCRONE RESEARCH INSTITUTE ☐ Chicago (S. Catania, McCrone Research Institute, 451 E. 31 St., Chicago, Ill., 60616) 5/68

Sessions and exhibits will cover new instruments, methods and applications of light and electron microscopy in chemistry, physics, biology, mineralogy and metallography.

10-14 **X-Ray Spectroscopy Clinic** ☐ STATE UNIVERSITY OF NEW YORK AT ALBANY ☐ (H. Chessin) 2/68

11-14 **Optimization** ☐ SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS ☐ Toronto (P. Wolfe) [4/1] 1/68

12-14 **Communications** ☐ IEEE ☐ Philadelphia (L. Winner) [1/15] 1/68

16-20 **Annual Meeting** ☐ HEALTH PHYSICS SOCIETY ☐ Denver, Colo. (W. R. Hendee) [2/1] 10/67

17 **Radiation Interaction with Polyatomic Molecules** ☐ AEC, HEALTH PHYSICS SOCIETY ☐ Denver, Colo. (E. Struxness) 4/68

17-19 **Southwest Meeting** ☐ APS ☐ Los Alamos, N. M. (W. Whaling) 10/67

17-19 **Microelectronics** ☐ IEEE ☐ St. Louis, Mo. (R. Pellin) [3/15] 3/68

17-28 **Quantum Electronics** ☐ U. OF ARIZONA ☐ Flagstaff, Ariz. (S. F. Jacobs) 3/68

19-21 **Structure and Chemistry of Solid Surfaces** ☐ LAWRENCE RADIATION LABORATORY ☐ Berkeley, Calif. (C. V. Peterson) 1/68

NEW LISTING OF INSTITUTES, SHORT COURSES AND SCHOOLS

17-21 JUNE

Mössbauer Spectroscopy ☐ CATHOLIC U. OF AMERICA ☐ Washington, D. C. (L. May, Chem. Dept., Catholic U. of America, Washington, D. C. 20017)

Topics of this course will include theory, instrumentation, and application to chemistry, metallurgy, nuclear and solid-state physics and biology.

17-28 JUNE

X-Ray Diffraction ☐ ILLINOIS INSTITUTE OF TECHNOLOGY ☐ Chicago (P. Gordon, Metallurgical Engineering Dept., Illinois Institute of Technology, Chicago, Ill. 60616) [5/1]

The first of these two one-week courses is an elementary course involving the physics of x rays, elementary crystallography, diffraction theory and analysis, interpretation of x-ray powder diagrams, indexing procedures. The second is an advanced course dealing with the reciprocal-lattice concept, theory for x-ray intensity, single crystal techniques, Laue method, rotating-crystal technique, quantitative analysis.

24 JUNE-23 AUGUST

Gordon Research Conferences. See "State and Society" page 91.

30 JUNE-14 JULY

Electronic Structures in Solids ☐ NATO ☐ Chania, Crete, Greece (E. D. Haidemenakis, 2, rue de Furstemberg, Paris 6, France)

Topics at this international advanced study institute will include modulation techniques, band theory, nonlinear optics, high magnetic fields, tunneling, excitons, energy conversion, superconductivity, magnetoplasmas, electron-phonon interactions, quantum transport, magnetic symmetries.

15 JULY-23 AUGUST

Low-Energy Accelerators, Harvard Project Physics ☐ OAK RIDGE ASSOCIATED UNIVERSITIES, NATIONAL SCIENCE FOUNDATION, AEC ☐ Oak Ridge, Tenn.

(Special Training Division, Oak Ridge Associated Universities, PO Box 117, Oak Ridge, Tenn. 37830)

Low-energy accelerators is a summer institute for college teachers designed to supplement university courses.

Harvard project physics is a summer institute for high-school physics teachers.

15-26 JULY

Underwater Acoustics, Theory and Applications of Modern Optics ☐ U. OF CALIFORNIA EXTENSION ☐ Los Angeles (R. E. Garrels, Engineering/Physical Sciences Extension, 6532 Boelter Hall U. of California, Los Angeles, Calif. 90024)

Acoustics: A short course covering basic acoustics, high-energy fields and their production, design, construction and evaluation of transmitting and receiving transducers, signal processing, ocean engineering.

Optics: A short course covering geometrical, wave, high-resolution and nonlinear optics. Generation propagation and secondary effects of light, lasers, systems of deflection in the electromagnetic spectrum, information processing and noise theory will be examined in detail.

28 JULY-31 AUGUST

Quantum Chemistry, Solid-State Physics and Quantum Biology ☐ U. OF UPPSALA ☐ Uppsala, Sweden (Director, Summer Institute, Quantum Chemistry Group, Rundelsgränd 2A, Uppsala, Sweden) [6/1]

This summer institute will include introductory and fundamental quantum mechanics, group theory, expansion methods, quantum theory of many-electron systems, angular momenta, quantum biology.

11-24 SEPTEMBER

Structure and Evolution of the Galaxy ☐ NATO ☐ Lagonissi, Greece (L. N. Mavridis, Geodetic Astronomy Dept., U. of Thessaloniki, Greece)

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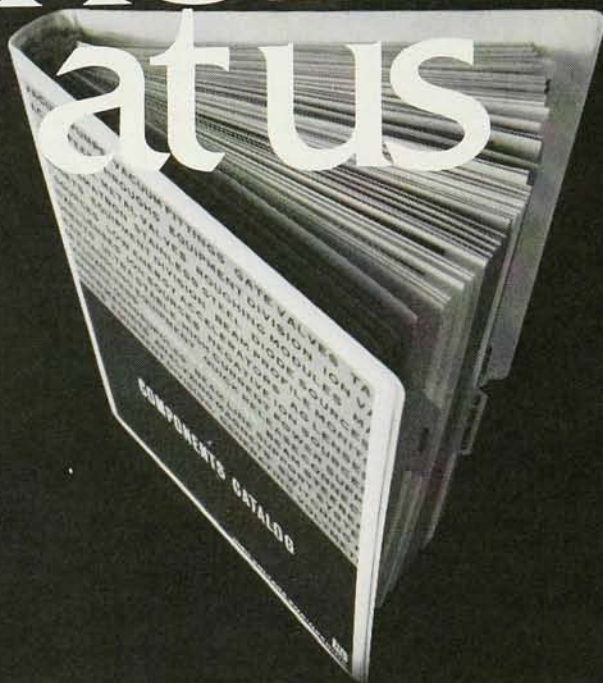
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- 23-28 **Power Conference** □ IEEE □ Chicago (J. F. Bracken) [2/9] 1/68
- 24-26 **Debye Memorial Symposium on Laser Scattering** □ APS □ Ithaca, N. Y. (W. D. Gurowitz) 4/68
- 24-26 **Summer Meeting** □ AAPT □ Tempe, Ariz. (R. Geballe) 3/68
- 24-27 **Bioastronautics and Exploration of Space** □ US AIR FORCE, MEDICAL DIVISION □ San Antonio, Tex. (J. Harmon) 2/68
- 25-28 **Precision Electromagnetic Measurements** □ IEEE, NBS □ Boulder, Colo. (G. Goulette) [2/12] 12/67
- 30-5 **CODATA Conference** □ INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS □ Arnoldshain, Frankfurt/Main, Germany (G. Waddington) 3/68

JULY 1968

- 8-10 **Marine Technology** □ MARINE TECHNOLOGY SOCIETY □ Wash., D. C. (F. Masters) 1/68
- 8-11 **Nuclear Magnetic Resonance** □ FORD FOUNDATION-U. OF SÃO PAULO □ São Paulo, Brazil (L. W. Reeves) [4/20] 1/68
- 8-12 **Molecular Crystals** □ TECHNICAL UNIVERSITY "TWENTE" □ Enschede, Netherlands (J. Kommandeur) 3/68
- 10-12 **Competing Spectrochemical Techniques** □ IPPS □ Keele, Germany (Meetings Officer, IPPS) [4/19] 2/68
- 14-20 **Combustion** □ COMBUSTION INSTITUTE □ U. of Poitiers, France (M. W. Evans) [12/14] 2/68
- 15 (through 8 Sept) **Nuclear Physics** □ U. OF GRENOBLE □ Les Houches, Haute-Savoie France (C. Dewitt) [3/1] 1/68
- 15-17 **Polymers in Space Research** □ AMERICAN CHEMICAL SOCIETY □ Pasadena, Calif. (A. Rembaum) [7/1] 4/68
- 15-18 **Electrical Contact Phenomena** □ IPPS □ University College of Swansea, Wales (Meetings Officer, IPPS) [2/1] 10/67
- 15-18 **Orbital-Electron Capture** □ HUNGARIAN ACADEMY OF SCIENCES □ Debrecen, Hungary (R. W. Fink) 2/68
- 15-19 **Crystal Growth** □ AFCL □ Birmingham, England (C. S. Sahagian) 12/67
- 22-26 **Rarefied Gas Dynamics** □ MASSACHUSETTS INSTITUTE OF TECHNOLOGY □ Cambridge, Mass. (Symposium secretary) [12/31] 11/67
- 23-29 **Physics of Semiconductors** □ IUPAP □ Leningrad, USSR (A. R. Regel) [2/1] 12/67
- 24-30 **Magnetohydrodynamic Production of Electricity** □ IAEA □ Warsaw, Poland (M. V. Tcherniline) [4/2] 12/67
- 29-2 • **Instrumentation Science** □ INSTRUMENT SOCIETY OF AMERICA □ Hamden, Conn. (M. Reed, Instruments Society of America, 530 William Penn Place, Pittsburgh, Pa. 15219) 5/68
- Topics at this research conference include doppler ultrasound for medical diagnosis, energy-sensing transducers, fluidics, computer challenge to the accuracy of sensors, ultrahigh-vacuum measurement, analytical instrumentation, remote data read-out systems.
- 29-2 • **Nuclear Structure** □ GORDON RESEARCH CONFERENCE □ Tilton, N. H. (J. Weneser, Brookhaven National Laboratory, Upton, L. I., N. Y. 11973) 5/68
- 31-2 • **First Annual Meeting** □ ELECTRON PROBE ANALYSIS SOCIETY □ Chicago (C. R. Knowles, Geophysical Science Dept., U. of Chicago, Chicago, Ill. 60637) 5/68

AUGUST 1968

- 1-7 **Plasmas and Controlled Nuclear Fusion** □ IAEA □ Novosibirsk, USSR (J. H. Kane) [1/15] 1/68
- 6-15 **Medical Radioisotope Scintigraphy** □ IAEA □ Salzburg, Austria (G. J. Hine & H. Vetter) [3/1] 11/67
- 7-9 **Ellipsometry** □ U. OF NEBRASKA □ Lincoln, Neb. (N. M. Bashara) 9/67
- 7-13 **Meteorite Research** □ IAEA □ Vienna, Austria (J. H. Kane) [2/28] 4/68
- 11-31 **Critical Phenomena** □ CANADIAN ASSOCIATION OF PHYSICISTS □ Banff, Alberta, Canada (D. L. Hunter) 3/68
- 12-16 □ ACA □ Buffalo, N. Y. (D. Harker) 10/67
- 12-16 **Liquid Crystals** □ KENT STATE U. □ Kent, Ohio (G. H. Brown) [5/1] 2/68
- 19-21 **Thermoluminescent Dosimetry** □ U. OF WISCONSIN MEDICAL CENTER □ Madison, Wisc. (J. R. Cameron) 4/68
- 20-23 **Molecular Luminescence** □ LOYOLA U. □ Chicago (E. C. Lim) 4/68
- 21-23 □ AAS □ University of Victoria, Victoria, B. C., Canada (G. C. McVittie) 11/67
- 21-23 **Applications of X-Ray Analysis** □ DENVER RESEARCH INSTITUTE □ U. of Denver, Colo. (J. B. Newkirk) 10/67
- 21-28 **Low-Temperature Physics** □ U. OF ST. ANDREWS □ St. Andrews, Scotland (D. M. Finlayson) 10/67
- 26-29 • **Standards Laboratory Conference** □ NATIONAL CONFERENCE OF STANDARDS LABORATORIES □ Boulder, Colo. (G. Goulette, Bureau of Continuation Education, 328 Memorial Center, U. of Colorado, Boulder, Colo.

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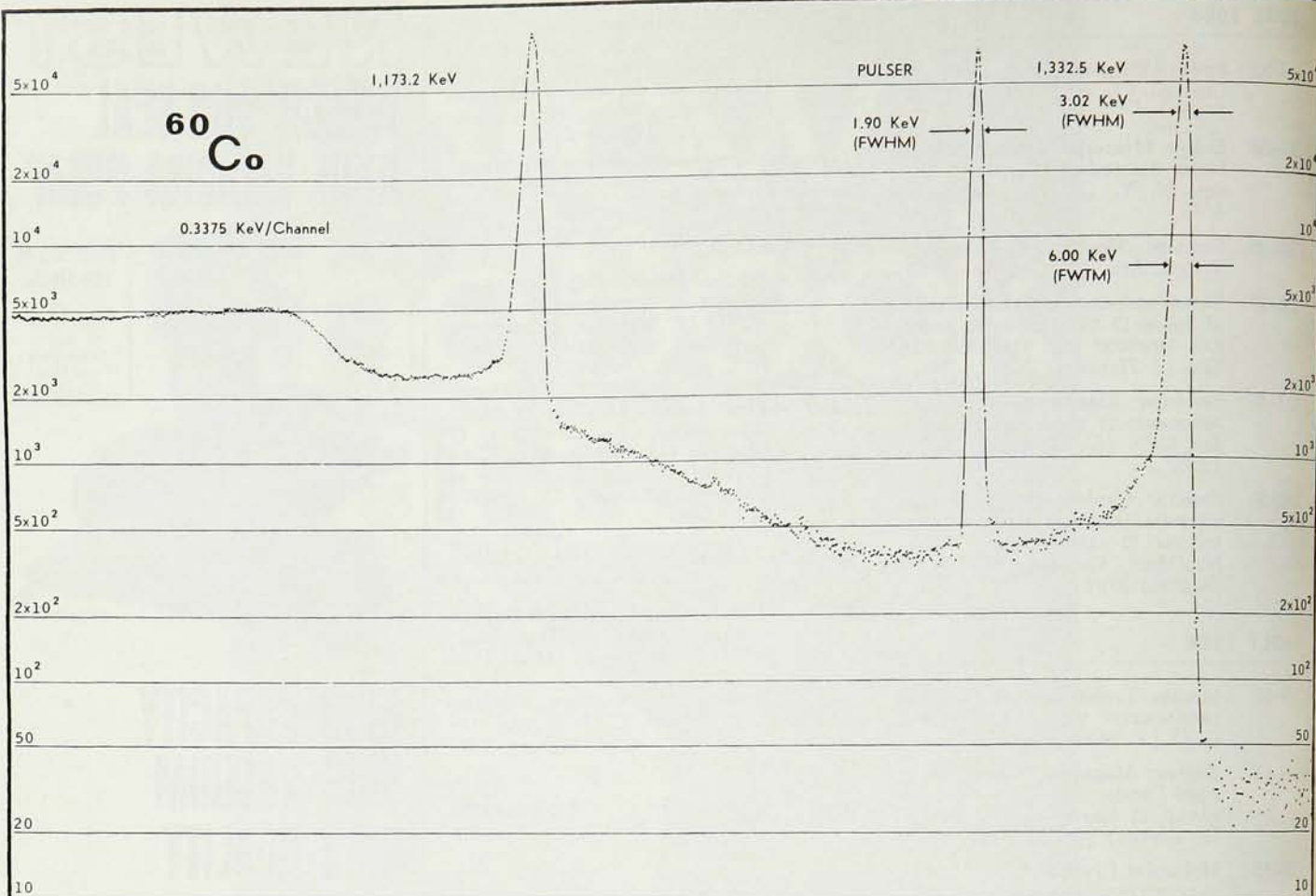
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80302) [3/15] 5/68

Topic: making valuable measurements.

- 26-30 **Reactivity in Solids** □ INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY □ Schenectady, N. Y. (R. W. Roberts) 10/67

- 26-31 **Applied Mechanics** □ STANFORD U. □ Stanford, Calif. (C. R. Steele) [2/2] 10/67

- 29-31 • **AC Properties of Superconductors and Their Applications** □ IPPS, IUPAP □ Coventry, England (Meetings Officer, IPPS, 47 Belgrave Sq., London SW 1) [6/7] 5/68

The program will include theoretical studies of the loss mechanisms and the behavior of superconducting materials in alternating conditions of magnetic field and current, measurement and ac techniques, materials and material properties relevant to ac behavior, the physics of devices under alternating conditions.

SEPTEMBER 1968

- 3, 4 • **Electron Mean Free Paths in Metals** □ EIDGENÖSSISCHE TECHNISCHE HOCHSCHULE □ Zürich, Switzerland (J. L. Olsen, Laboratorium für Festkörperphysik, E. T. H., Gloriastrasse 35, CH-8006 Zürich, Switzerland) 5/68

Experimental and theoretical work on anisotropy of the electron relaxation time in metals as found from de Haas-van Alphen effect, and size effects will be discussed.

- 3-6 **Macromolecular Chemistry** □ INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY □ Toronto (Organizing Committee) 1/68

- 3-6 **Light Scattering Spectra in Solids** □ NEW YORK U. □ New York (J. Birman) [3/15] 2/68

- 3-7 • **Molecular Structure and Spectroscopy** □ OHIO STATE U. □ Columbus, Ohio (K. N. Rao, Physics Dept., Ohio State U., 174 W. 18 Ave., Columbus, Ohio 43210) 5/68

Topics: electronic structure of larger molecules, molecular problems studied with gas lasers, computer techniques, Fourier transform spectroscopy.

- 4-6 **Physics and Chemistry of Electrophotography** □ INSTITUTE OF OPTICS, U. OF ROCHESTER □ Rochester, N. Y. (W. L. Hyde) [6/1] 1/68

- 9-12 **Elementary Particles** □ IPPS □ London (Meetings Officer, IPPS) 2/68

- 9-14 **Arnold Sommerfeld Centennial Memorial Meeting and Symposium on Physics of One- and Two-Electron Atoms** □ IUPAP □ Munich, Germany for memorial session: (F. Bopp) 2/68 for symposium: (H. Kleinpoppen) 2/68

- 9-14 **Statistical Mechanics** □ IUPAP □ Tokyo (R. Kubo) 1/68

- 10-13 • **Nuclear Electronics** □ SOCIÉTÉ FRANÇAISE DES ELECTRONICIENS ET RADIOELECTRICIENS □ Versailles, France (Colloque Inter-

national sur l'Electronique Nucléaire, Boite Postale no. 17, 78-Chatou, France) 5/68

Topics: detectors, preamplifiers and amplifiers, signal filtering, time to amplitude conversion, analog to digital conversion, encoding, counting, data acquisition, visualization, and reduction during experiments.

- 10-15 **Magnetic Oxides** □ INSTITUTE OF PHYSICS OF THE ACADEMY OF SCIENCES ROMANIA □ Bucharest, Romania (M. Rosenberg) 10/67

- 11-13 **Physical Aspects of Noise in Electronics** □ IPPS □ (Meetings Officer, IPPS) [5/31] 1/68

- 11-19 • **Integration of Science Teaching** □ INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS □ Varna, Bulgaria (P. Fleury, 3, Boulevard Pasteur, Paris XV, France) 5/68

All aspects of integrated teaching in the physical and life sciences will be discussed.

- 16-19 • **Liquid Dielectrics** □ CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE □ Grenoble, France (N. J. Felici, CNRS, Chemin des Martyrs, Boite Postale 319, 38 Grenoble, France) [2/1] 5/68

Topics: electric conduction and breakdown processes in liquid dielectrics such as hydrocarbons, nondissociated and dissociated polar liquids, and liquid gases.

- 16-21 □ 15TH AMPERE COLLOQUIUM □ St. Martin d'Hères, France (P. Averbuch) 9/67

- 16-21 • **Optical and Spectroscopic Phenomena in Ionic Crystals** □ INSTITUTE OF PHYSICS OF THE ROMANIAN ACADEMY □ Bucharest, Romania (M. Giurgea, Institute of Physics of the Romanian Academy, Calea Victoria 114, Bucharest, Romania) [3/30] 5/68

Topics: excitons, color centers, crystal field, impurity ions in crystals, structural defects.

- 23-26 • **Plasma Diagnostics** □ IPPS □ Culham Laboratory, England (Meetings Officer, IPPS 47 Belgrave Sq., London SW 1) [3/1] 5/68

Topics: probes, spectroscopy, lasers, other optical methods, microwave and infrared techniques, particle measurements.

- 23-27 **Vacancies and Interstitials in Metals** □ IUPAP □ Jülich, Germany (W. Schilling) [5/15] 11/67

- 24-26 ♦ **Laser Measurements** □ INTERNATIONAL SCIENTIFIC RADIO UNION □ Warsaw, Poland (S. Hahn) [2/1] 10/67

- 25-27 **Stresses in Composite Materials** □ IPPS □ Cranfield, England (Meetings Officer, IPPS) [12/1] 1/68

- 25-27 **Ultrasonics** □ IEEE □ New York (F. M. Smits) [7/15] 2/68

OCTOBER 1968

- 4, 5 • **Low-Energy Nuclear Physics** □ NEW YORK STATE SECTION-APS □ State University of New York at Albany (J. Smith, Physics Dept., SUNY at Albany, Albany, N. Y. 12203) 5/68

- 8-11 □ OSA □ Pittsburgh, Pa. (M. E. Wurga) [7/8] 11/67

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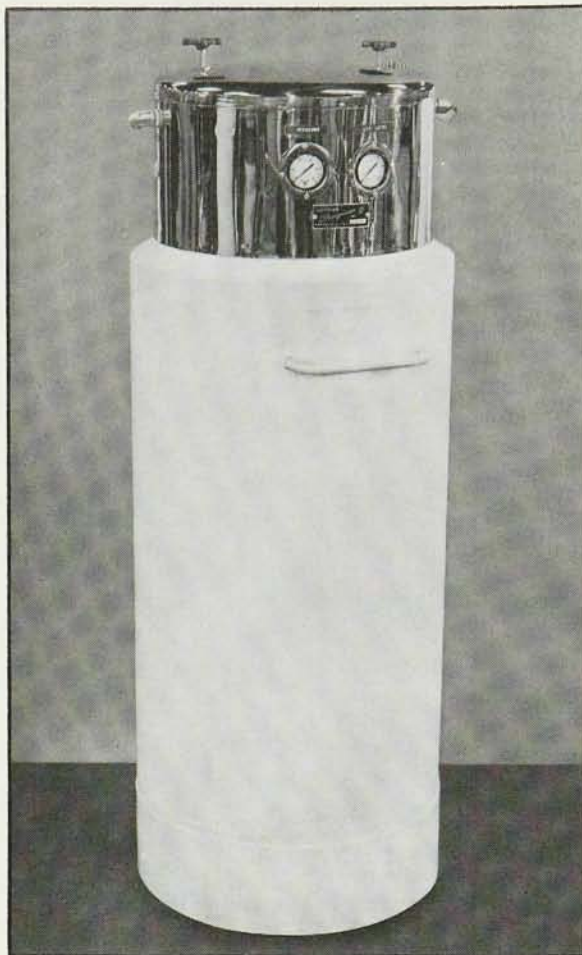
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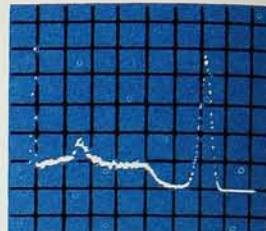
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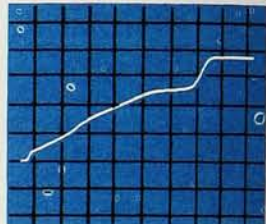
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- 14-18 Packaging and Transportation of Radioactive Materials ☐ ORNL, AEC ☐ Gatlinburg, Tenn. (K. W. Haff) [1/1] 2/68
- 21-23 Silicon Carbide ☐ AFCRL ☐ University Park, Pa. (J. W. Faust) 4/68
- 28-31 Instrumentation ☐ INSTRUMENT SOCIETY OF AMERICA ☐ New York (O. W. Williams) [2/1] 1/68
- 30-1 Annual Symposium ☐ AVS ☐ Pittsburgh, Pa. (W. J. Lange) [6/15] 4/68

NOVEMBER 1968

- 18-21 Magnetism and Magnetic Materials ☐ AIP, IEEE ☐ New York (D. T. Teaney) 3/68
- 19-21 ☐ ASA ☐ Cleveland, Ohio (J. L. Hunter) 3/68
- 25-27 Fall Meeting and Nuclear Physics Div. ☐ APS ☐ Miami Beach, Fla. (W. W. Havens) 3/68

DECEMBER 1968

- 2-4 ☐ AMERICAN GEOPHYSICAL UNION ☐ San Francisco (J. C. Harrison) [10/1] 2/68
- 11-13 ☐ AAS ☐ Austin, Tex. (P. M. Routly) 3/68
- 16-20 Relativistic Astrophysics ☐ SOUTHWEST CENTER FOR ADVANCED STUDIES ☐ Dallas (I. Robinson) 9/67
- 18-20 Winter Meeting ☐ APS ☐ San Diego (W. Whaling) [10/15] 2/68

FEBRUARY 1969

- 3-6 Annual Meeting ☐ AAPT-APS ☐ New York (W. W. Havens) 4/68
- 27-1 Southwest Meeting ☐ APS ☐ St. Louis, Mo. (W. Whaling) 4/68

MARCH 1969

- 11-15 ☐ OSA ☐ San Diego, Calif. (M. E. Warga) 4/68
- 24-26 • Chemical, High-Polymer and Solid-State Physics Div. ☐ APS ☐ Philadelphia, Pa. (W. W. Havens, 335 E. 45 St., New York, N. Y. 10017) 5/68

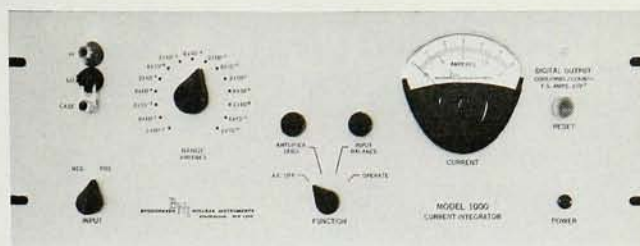
APRIL 1969

- 28-1 • Spring Meeting and Nuclear Physics Div. ☐ APS ☐ Washington, D. C. (W. W. Havens, 335 E. 45 St., New York, N. Y. 10017) 5/68

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