calendar

MAY 1979

- 14–18 Int Symp on Physics and Chemistry of Fission Julich, Fed. Rep. of Germany 11/78
- 15-16 Gradient-Index Optical Imaging Rochester, N.Y. 3/79
- 15–17 Nat Aerospace and Electronics Conf Dayton, Ohio 3/79
- 15-18 9th Annual Conf on Absorption of Electromagnetic Waves Rochester, N. Y. 3/79
- 15–18 12th Ultrasonics Int Graz, Austria
- 16-17 Ultra-short Laser Pulses London, U.K. 1/79
- 16-18 10th Conf on Medical Physics Braunschweig, Fed. Rep. Germany 3/79
- 17–23 Gamma-Ray Astronomy after COS-B Erice, Italy 1/79
- 21–23 Annual Conf: Micro-analysis— Scanning of Electron Microscopy Lyon-Villeurbanne, France 1/79
- 21–25 Colloids and Surfaces Pittsburgh, Pa. 3/79
- 21-25 Fast Ion Transport in Solids—Electrolytes and Electrodes Lake Geneva, Wis. 11/78
- 21–27 8th IMEKO Congress: Measurement for Progress in Science and Technology Moscow, USSR 1/79

- 22–25 Conf on Plasma Sciences Montreal, Canada 3/79
- 22-25 Electro-Optical Tech Symp and Wrkshp Huntsville, Alabama 3/79
- 22-25 Electro '79 New York, N.Y. 11/78
- 23–25 Custom Integrated Circuits Conf [IEEE Electron Devices Soc.] Rochester, N.Y. (A. I. Lakatos, Xerox, Webster Research Center, 800 Phillips Rd., Bldg. 114, Webster, N.Y. 14580) [2/15/79]
- 23–25 LASL Conf on Optics Los Alamos, N.M. 1/79
- 23–26 Conf on Quantum Theory and Gravitation New Orleans, La. 1/79
- 24-28 2nd Int Conf on Deep Levels in Semiconductors France 1/79
- 27-1 7th Canadian Congress of Applied Mechanics Sherbrooke, Quebec, Canada 11/78
- 28-31 4th Int Meeting of Modern Ceramics Technologies—Energy and Ceramics Saint-Vincent, Italy 3/79
- 28-1 **7th Int Symp on Molecular Beams** Trento, Italy 11/78
- 28-1 American Geophysical Union Spring Meeting Washington, D.C. 1/79
- 29-1 2nd Int Conf on Megagauss Magnetic Field Generation and Related Topics Washington, D.C. (P. J. Turchi, Chairman, Naval Research Lab., Code 6770,

Coding: date subject [Sponsor] Location (Contact) [abstract deadline] Physics Today reference • new listing □ new or revised information

Please Note: follow-up listings give Italicized reference date specifying Physics Today issue in which further information can be found.

Abbreviations:

AAPM	American Association of Physicists in	AGU	American Geophysical Union
	Medicine	ANS	American Nuclear Society
AAPT	American Association of Physics	DOE	Department of Energy
	Teachers	EPS	European Physical Society
AAS	American Astronomical Society	IAEA	International Atomic Energy Agency
ACA	American Crystallographic Association	IEEE	Institute of Electrical and Electronics
APS	American Physical Society		Engineers
ASA	Acoustical Society of America	IOP	The Institute of Physics
AVS	American Vacuum Society	IUPAP	International Union of Pure and Applied
OSA	Optical Society of America		Physics
SPS	Society of Physics Students	NAS	National Academy of Sciences
SofR	Society of Rheology	NBS	National Bureau of Standards
AAAS	American Association for the	NRC	Nuclear Regulatory Commission
	Advancement of Science	NSF	National Science Foundation

A calendar of physics-related meetings appears only in alternate (odd-numbered) months. Send information to: Calendar, PHYSICS TODAY, 335 East 45th Street, New York, N.Y. 10017, to arrive at least three months before the notice should appear.

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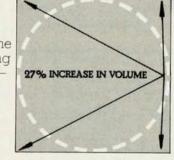
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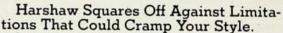
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- 30-1 33rd Annual Frequency Control Symp Atlantic City, N.J. 3/79
- 30-1 15th Symp on Electron, Ion and Photon Beam Technology Boston, Mass. 3/79
- 30-1 Conf on Laser Eng and Applic Washington, D.C. 1/79

JUNE 1979

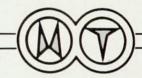
- 3-8 27th Annual Conf on Mass Spectrometry and Allied Topics Seattle, Wash. 3/79
- 3-8 ANS Annual Meeting Atlanta, Ga.
- 4-6 **14th Thermophysics Conf** Orlando, Fla. 3/79
- 4-6 Synchrotron Radiation Instrumentation Gaithersburg, Md. 3/79
- 4-6 6th IEEE Int Conf on Plasma Science Montreal, Quebec, Canada 11/78
- 4-6 Annual Meeting of the Canadian Geophysical Union 1/79
- 4-8 Acoustics Maribor, Jugosl 3/79
- 5-7 Ultrasonics in Biophysics and Bioengineering Monticello, III. 11/78
- 5-7 Irradiation Behavior of Metallic Materials for Fast Reactors Ajaccio, Sardinia 3/79
- 5-9 Annual Meeting of the German Society of Applied Optics (H. J. Preuss, c/o Ernst Leitz Wetzlar GmbH, Postfach 2020, 0-6330 Wetzlar, Fed. Rep. Germany) [1/31/79]
- 5-9 Nuclear Physics with Electromagnetic Interactions Mainz, West Germany 11/78
- 10-13 AAS General Meeting Wellesley, Mass.

- 11–13 Shock Waves in Condensed Matter Pullman, Wash. 3/79
- 11–15 Magnetospheric Boundary Layers Tyrol, Austria 3/79
- 11–15 **4th Int Conf on Laser Spectroscopy**Rottach-Egern, Fed. Rep. Germany
 3/79
- 11–15 Symp on Accuracy in Powder Diffraction Gaithersburg, Md. 1/79
- 11–15 ASA Spring Meeting Cambridge, Mass. 3/79
- 11–16 Large Amplitude Collective Nuclear Motions Keszthely, Lake Balaton, Hungary 1/79
- 12–14 2nd IEEE Int Pulsed Power Conf Lubbock, Texas 3/79
- 12–16 6th Int Conf on Solid Compounds of Transition Elements Stuttgart, Fed. Rep. of Germany 1/79
- 13-15 Ultrasoft X-ray Microscopy: Its Application to Biological and Physical Sciences New York, N.Y. 3/79
- 13–15 Symp on Applied Surface Analysis Dayton, Ohio 3/79
- 13-15 Symp on Applications of Ferroelectrics Minneapolis, Minn. 11/78
- 14–15 Symp on the Study of the Solar Cycle from Space [NASA] Wellesley, Mass. (G. A. Newkirk Jr, Nat. Center for Atmos. Res., High Altitude Observatory, P.O. Box 3000, Boulder, Colo. 80307)
- 18-20 Computers in Radiology Newport Beach, Cal. 3/79
- 18-20 **Ultrasonic Imaging and Tissue Char**acterization Gaithersburg, Md. 3/79
- 18–20 Physical Electronics Conf University of Maryland 3/79
- 18-20 Dynamical Processes in the Excited State of Ions and Molecules in Solids

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1979 Gordon Research Conferences

The 1979 Gordon Research Conferences will be held from 11 June to 24 August in New Hampshire and California. The conferences were established to stimulate research in universities, research foundations and industrial laboratories. This purpose is achieved by an informal type of meeting consisting of scheduled speakers and discussion groups.

Complete information about the conferences is available from A. M. Cruickshank, Gordon Research Conferences, Pastore Chemical Laboratory, University of Rhode Island, Kingston, R.I. 02881

Some physics-related conferences include:

Nuclear Chemistry, 18–22 June; Catalysis, 25–29 June; Corrosion, 23–27 July at Colby-Sawyer College, New London, N.H.

Point and Line Defects in Semiconductors, 23–27 July at Kimball Union Academy, Meriden, N.H.

Nuclear Structure Physics, 9–13 July; Laser Interaction with Matter, 13–17 August at Tilton School, Tilton, N.H.

Energy Coupling Mechanisms, 16–20 July; Chemistry and Physics of Coatings and Films, 6–10 August; Elementary Particle Interactions, 20–24 August at Proctor Academy, Andover. N.H.

Chemistry and Physics of Solids, 9–13 July; Chemistry and Physics of Liquids, 13–17 August at Holderness School, Plymouth, N.H.

Space Plasma Physics, 11–15 June; Magnetic Resonance, 18–22 June; Atomic Physics, 25–29 June; Nonlinear Optics, 2–6 July; Few Body Problems in Chemistry and Physics, 13–17 August at Brewster Academy, Wolfeboro, N.H.

Dynamics of Quantum Solids and Fluids, 9–13 July; Dynamics of Gas-Surface Interactions, 13–17 August; Remote Sensing of the Earth's Surface from Space, 20–24 August at Plymouth State College, Plymouth, N.H.

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[APS; OSA; Univ. of Wisc. Graduate School] Madison, Wisc. (W. M. Yen, DPC-79, Dept. of Physics, Univ. of Wisc., 1150 University Ave., Madison, Wisc. 53706) [3/15/79] 18-20 18th Symp on the Engineering Aspects of Magnetohydrodynamics
Butte, Mont. 1/79

18-21 1979 Congress of the Canadian Assoc

of Physicists Vancouver, B.C. 1/79

18-22 Nat Radio Science Meeting and Bioelectromagnetics Symp Seattle, Wash. 3/79

SHORT COURSES AND SCHOOLS

General Electric 1979 Medical Education Programs

Through December 1979 [General Electric] Milwaukee, Wisc. and Bethesda, Md. (C. Rose, Director, Medical Education Programs, General Electric Co., Medical Systems Division, P.O. Box 414 Tl 40, Milwaukee, Wisc. 53201)

Modern Permanent Magnet Materials

11-15 June [University of Southern California] Los Angeles, Cal. (J. P. Hutchins, Continuing Engineering Education, Powell Hall 216, University Park, Los Angeles, Cal. 90007)

Summer Inst. on Planets and Climate

11 June-17 August [Columbia Univ.] (Summer Inst. on Planets and Climate, 102 Low Library, Columbia Univ., New York, N.Y. 10027)

Three Courses in Optics

11-22 June [Univ. of Rochester] Rochester, N.Y. (Summer School Dir., The Inst. of Optics, Univ. of Rochester, Rochester, N.Y. 14627)

Rheological and Mechanical Property Measurements

12-15 June [Univ. of Minnesota] Minneapolis, Minn. (C. Ehlenz, Dept. of Chem. Eng., Univ. of Minnesota, Minneapolis, Minn. 55455)

Intermediate Energy Nuclear Physics

18-29 June [Univ. of Rome] Ariccia, Italy (C. Schaerf, Istituto di Fisica, Università degli Studi di Roma, Piazzale delle Scienze, 5, 1-00185 Rome, Italy)

Understanding and Assessing Paper and Fibrous Structures

25-29 June [State Univ. of N.Y. at New Paltz] New Paltz, N.Y. (A. V. Patsis, Chairman, Dept. of Chem., SUNY at New Paltz, New Paltz, N.Y. 12562)

Scanning Electron Microscopy

25–29 June [Lehigh Univ.] Bethlehem, Pa. (J. I. Goldstein, Dept. of Metallurgy and Materials Engrg., Lehigh Univ., Whitaker Lab. 5, Bethlehem, Pa. 18015)

Vibrational Spectroscopy of Molecular Liquids and Solids

25 June-7 July [NATO] Menton, France (R. M. Pick, Dept. de Recherches Physiques, Tour 22, Universite Pierre et Marie Curie, 4 Place Jussieu, 75230 Paris Cedex 05, France)

Medical Physics

25 June-7 July [Italian Physical Society, Enrico Fermi Int. School of Physics] Varenna, Italy (M. Della Corte, Istituto di Fisica Medica e Medicina Nucleare, Viale Morgagni, 85 50134 Firenze, Italy)

New Developments in Semiconductor Physics

1-6 July [Roland Eötvös Physical Soc. of

Hungary | Szeged, Hungary (NDSP, Roland Eotvös Physical Soc., H-1368 Budapest, P.B. 240., Hungary)

Fiber Optic Communication Systems

9-13 July [University of California, Santa Barbara] Santa Barbara, Cal. (Dept. of Science and Mngt., Univ. of Cal. Extension, Santa Barbara, Cal. 93106)

Nuclear Structure and Heavy Ion Collisions

9-21 July [Italian Physical Soc., Enrico Fermi Int. School of Physics] Varenna, Italy (R. A. Ricci, Istituto di Fisica Galileo Galilei, Univ. di Padova, Via Marzolo, 8, 35100 Padova, Italy)

Quantum Flavordynamics, Quantum Chromodynamics and Unified Theories

9-27 July [NATO Adv. Study Inst.] Boulder, Colo. (K. T. Mahanthappa, Dept. of Physics, Univ. of Colo., Boulder, Colo. 80309)

Corrosion: The Environmental Degradation of Materials

16-20 July [MIT] Cambridge, Mass. (Dir. of the Summer Session, Room E19-356, MIT, Cambridge, Mass. 02139)

Nuclear Power Safety

16-20 July [Oak Ridge Associated Universities; DOE] Oak Ridge, Tenn. (Registrar, Prof. Training Programs, Oak Ridge Assoc. Univ., P.O. Box 117, Oak Ridge, Tenn. 37830)

Guided Wave Optical Circuits

16-20 July [Univ. of Cal., Santa Barbara] Santa Barbara, Cal. (M. K. Barnoski, Hughes Research Labs., Malibu, Cal. 90265)

3rd European Optics Summer School

16–27 July [Univ. of Reading] Reading, UK (*J. Macdonald, Physics Dept., Univ. of Reading, Whiteknights, Reading, Berks, RG6 2AF, UK)*

Applied X-ray Spectrometry and X-ray Powder Diffraction

23–27 July [Univ. of Denver] Denver, Colo. (M. Cain, Denver Research Inst., Univ. of Denver, Denver, Colo. 80208)

Detection of Infrared Radiation

23-27 July [Univ. of Cal., Santa Barbara] Santa Barbara, Cal. (Dept. of Science and Mngt., Univ. of Cal. Extension, Santa Barbara, Cal. 39106)

Applied Molecular Spectroscopy: Infrared-Raman-Ultraviolet

23-27 July [Ariz. State Univ.] Tempe, Ariz. J. Fuchs, Dir., Modern Indust. Spectroscopy, Dept. of Chem., Ariz. State Univ., Tempe, Ariz. 85281)

Social and Economic Impact of Energy Production

23 July-3 August [DOE] Oak Ridge, Tenn.

(Registrar, Prof. Training Programs, Oak Ridge Associated Univ., P.O. Box 117, Oak Ridge, Tenn. 37830)

Coal Production, Technology and Utilization

23 July-3 August [DOE] Oak Ridge, Tenn. (Registrar, Prof. Training Programs, Oak Ridge Associated Univ., P.O. Box 117, Oak Ridge, Tenn. 37830)

Physics of the Earth's Interior

23 July-4, August [Italian Physical Soc., Enrico Fermi Int. School of Physics] Varenna, Italy (E. Boschi, Istituto di Geofisica Dell'Universita, Via Irnerio, 46, 40126 Bologna, Italy)

Modern Industrial Spectroscopy

6-17 August [Ariz. State Univ.] Tempe, Ariz. (J. Fuchs, Dir., Modern Indust. Spectroscopy, Dept. of Chem., Ariz. State Univ., Tempe, Ariz. 85281)

4th Int Summer Inst in Surface Science

13-17 August [Univ. of Wisc.] Milwaukee, Wisc. (R. Vanselow, Dept. of Chem. and Lab. for Surface Studies, (Chem 112), Univ, of Wisc.-Milwaukee, Milwaukee, Wisc. 53201)

Scientific and Mathematical Foundations of Engrg Acoustics

13-24 August [MIT] Cambridge Mass. (R. H. Lyon, MIT, Rm. 3-366, Dept. of Mech. Engrg., Cambridge, Mass. 02139)

Atomic and Molecular Processes in Controlled Fusion Research

16-26 August Istanbul, Turkey (M.R.C. MacDowell, Dept. of Mathematics, Royal Holloway College, Egham, TW20 0EX,UK)

Liquid and Amorphous Metals

10-22 September [NATO Adv. Study Inst.] Zwiesel, Fed. Rep. Germany (M. Gerl, Physik-Dept. E13, Technische Universitat Munchen, D-8046 Garching, Fed. Rep. Germany)

Advances in Radiation Protection and Dosimetry in Medicine

16–26 September [Int. School of Radiation Damage and Protection, Ettore Majorana Center for Scientific Culture] Erice, Italy (*V. Perez-Mendez, Bldg. 50, Lawrence Berkeley Lab., Univ. of Cal., Berkeley, Cal. 94720*)

Radiationless Processes in Molecules and Crystals

18 November-1 December [NATO Adv. Study Inst.] Erice, Italy (B. Di Bartolo, Dept. of Physics, Boston College, Chestnut Hill, Mass. 02167)

11th Int Autumn School on Magnetism

20-23 November [College of Transport and Communications Friedrich List] Hetzdorf, German Dem. Rep. (K. Elk, Hochschule fur Verkehrswesen Friedrich List, Wissenschaftsbereich Physik, DDR-8072 Dresden, Postfach 103, German Dem. Rep.)



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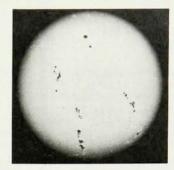


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- 18–22 Int Symp on Occupational Radiation Exposure in Nuclear Fuel Cycle Facilities Los Angeles, Cal. 1/79
- 18–22 Laser '79 Exhibition & Congress Fed. Rep. of Germany 11/78
- 18-22 Europhysics Study Conf on Multiphoton Processes Benodet, France 3/79
- 19–20 AAAS 4th Colloq on R & D in Federal Budget Washington, D.C. 9/78
- 19-21 Int Microcomputers, Minicomputers, Microprocessors 79 Geneva, Switzerland 3/79
- 19-21 Radio Interferometry Techniques for Geodesy Westford, Mass. 1/79
- 19-22 Neutrino '79 Bergen, Norway 11/78
- 20–21 Conf on Computer Aided Analysis of Radiological Images Newport Beach, Cal. 3/79
- 20-23 AAPT Meeting Las Cruces, N.M. 1/79
- 21–23 3rd Conf on Superconductivity in dand f- Band Metals La Jolla, Cal. (J. K. Hulm, Westinghouse R&D Center, 1310 Beulah Rd., Pittsburgh, Pa. 15235) [3/1/79]
- 25-27 Int Symp on Recent Devel in Classical Wave Scattering [ONR] Columbus, Ohio (L. K. Varadan, Ohio State Univ., Dept. of Engrg. Mech., Boyd Laboratory, 155 West Woodruff Ave., Columbus, Ohio
- 25–28 14th Rare Earth Res Conf Fargo, N.D. 11/78
- 25-29 **Excell-electrons in Fluid Phases** Aviernore, France *3/79*
- 26-29 4th Eur Experimental NMR Conf Autrans, France 1/79
- 26-30 Quasars and Active Galaxies [Astron. Soc. of the Pacific] San Francisco, Cal. (Summer Meeting, ASP, 1290 24th Ave., San Francisco, Cal. 94122)
- 27–29 Device Research Conf [IEEE Electron Device Soc.] Boulder, Colo. (H. Nathanson, Conf Chairman, Westinghouse R&D Center, 1310 Beulah Road, Pittsburgh, Pa. 15235) [3/1/79]
- 27-4 1979 EPS High Energy Physics Conf Geneva, Switzerland 11/78
- 28-29 6th Annual Conf of the Plasma Physics Group of the IOP Sussex, UK 3/79
- 28-31 Mechanics of Sound Generation in Flows Göttingen, Fed. Rep. Germany 3/79

JULY 1979

- 1-6 21st Colloq Spectroscopium Internationale/8th Int Conf on Atomic Spectroscopy Cambridge, UK 9/78
- 2-4 Insulating Films and Semiconductors Durham, U.K. 1/79
- 2-6 9th Int Conf on Laser Atmospheric Studies Munich, Fed. Rep. of Germany 1/79
- 2-6 4th Int Congress on Laser-Opto-Electronics Munich, Fed. Rep. Germany 3/79
- 2-6 Symp on the Underground Disposal of Radioactive Wastes Otaniemi, Finland 9/78
- 2-7 10th Int Conf on Solid State Nuclear Track Detectors Lyons, France 1/79
- 3-5 3rd British Conf on the Teaching of Vibration and Noise Sheffield, U.K. 1/79

- 3-5 2nd Int Conf and Exhib on Ion Plating and Allied Techniques London, U.K. 1/79
- Int Topical Conf on Pulsed Electron and Ion Beams Novosibirsk, USSR (V. Mirnov; Nuclear Physics Inst., SU-630090 Novosibirsk, USSR)
- 2nd Marcel Grossman Meeting on Recent Developments of General Relativity [UNESCO; IAEA; Int. Centre for Theoretical Physics] Trieste, Italy (Deputy Director, Int. Centre for Theoretical Physics, P.O. Box 586, 1-34100 Trieste, Italy)
- 9–13 **14th Int Conf on Phenomena in Ionised Gases** Grenoble, France 1/79
- 9-13 Int Conf on Theory of Machines and Mechanisms Montreal, Canada 3/79
- 9-13 Cont of Gordon Conf on Molecular Electron Spectroscopy Cirencester, UK 11/78
- 16-19 12th Int Symp on Shock Tubes and Waves Jerusalem, Israel 1/79
- 16-20 Annual Conf on Nuclear & Space Radiation Effects Santa Cruz, Cal. 3/79
- 16-28 Antwerp Advanced Study Inst on Theor Aspects and New Developments in Magneto-Optics Antwerp, Belgium 1/79
- 17-20 Joint Intermag-Magnetism and Magnetic Materials Conf New York, N.Y. 7/78
- 18–20 3rd Eur Conf on Internal Friction and Ultrasonic Attenuation in Solids Manchester, UK 3/79
- 29-2 AAPM 21st Annual Meeting and Exhibition Atlanta, Ga. 1/79
- Applications of X-Ray Analysis Denver, Colo. (M. Cain, Denver Research Inst., Univ. of Denver, Denver, Colo. 80208)
- 30–3 7th AIRAPT Int High Pressure Conf Le Creusot, France 11/78

AUGUST 1979

- 1-3 Photo-Acoustic Spectroscopy Ames, lowa 3/79
- 5-8 9th Biannual Conf on Reactor Operating Experience Arlington, Texas
- 5-8 **18th National Heat Transfer Conf San** Diego, Cal. *11/78*
- 5-10 1979 Intersociety Energy Conversion Engineering Conf Boston, Mass.
- 6-8 Izmir Int Symp on Solar Energy Fundamentals and Applic Izmir, Turkey 3/79
- 6–10 Physics and Mechanics of Ice Lyngby, Denmark 1/79
- 6-10 Interstellar Molecules Mont Tremblant, Quebec, Canada 1/79
- 6-18 16th Int Cosmic Ray Conf [IUPAP] Kyoto, Japan (S. Miyake, Inst. for Cosmic Ray Research, Univ. of Tokyo, 3-2-1 Nidori-cho, Tanasha Shi, Tokyo 188, Japan)
- 7-9 Waves and Instabilities in Space Plasma 1/79
- 7-10 Close Binary Stars: Observation and Interpretation Toronto, Canada 1/79
- 7–10 Radio Physics of the Sun College Park, Md. 1/79
- 8-21 8th Hawaii Topical Conf in Particle Physics Honolulu, Hi. 1/79



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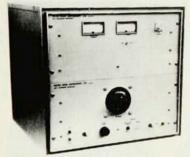
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- 12-17 ACA Annual Meeting Boston, Mass. 1/79
- 12–17 Microbeam Analysis and Electron Microscopy San Antonio, Texas (E. Lifshin, General Electric R&D Center, Box B, Schenectady, N.Y. 12301)
- 12–17 8th Int Conf on Atomic Collisions in Solids Hamilton, Canada 7/78
- 12–18 4th Int Conf of the Commission on Atmos Chem and Global Pollution [Int. Assoc. of Meteorology and Atmos. Physics] Boulder, Colo. (E. A. Martell, NCAR, P.O. Box 3000, Boulder, Colo. 80303)
- 12-18 8th Int Mass Spectrometry Conference Oslo, Norway 1/79
- 12-24 Joint Cryogenic Engrg and Int Cryogenic Materials Conf Madison, Wisc. (D. Belsher, NBS, Boulder, Colo. 80303)
- 13-17 5th Eur Crystallographic Meeting Copenhagen, Denmark 1/79
- 13-17 Microbeam Analysis Society and Electron Microscopy Society of America: Combined Annual Meeting San Antonio, Texas 11/78
- 13–17 8th International Conference of High Energy Physics and Nuclear Structure Vancouver, Canada 11/78
- 14–23 17th Gen Assembly of Int Astronomical Union Montreal, Canada 1/79
- 19–23 Int Conf on Fast Reactor Safety Technology Seattle, Wash. 3/79
- 19–24 GIREP Seminar on Physics Teaching Rehovot, Israel 3/79
- 19-24 12th Int Conf on Medical and Biological Engineering/5th Int Conf on Medical Physics Jerusalem, Israel 7/78
- 19-25 6th Sagamore Conf on Charge, Spin and Momentum Densities Mont Tremblant, Canada 7/78
- 19-26 10th Int Radiocarbon Conference Berne, Fed. Rep. of Germany 1/79
- 20-22 Symp on Instrumentation and Control for Fossil Energy Processes Denver, Colo. 3/79
- 20–22 4th Int Conf on Ellipsometry Berkeley, Cal. 11/78
- 20-24 3rd Int Conf on Mechanical Behavior of Materials Cambridge, UK 1/79
- 20-24 7th Int Colloq on Gasdynamics of Explosions and Reactive Systems Göttingen, Fed. Rep. of Germany 5/78
- 20–31 LAMPF Program Options Wrkshp Los Alamos, N.M. 1/79
- 22-24 Elec Mag and Optical Properties of Glasses Troy, N.Y. 3/79
- 22-24 2nd US National Conf on Earthquake Engrng Stanford, Cal. 11/78
- 23-29 Int Symp on Lepton and Photon Interactions at High Energies Batavia,
- 26–31 Secondary Ion Mass Spectrometry Palo Alto, Cal. (R. A. Powell, Elec. Engrg. Dept., Stanford Univ., Stanford, Cal. 94305) [4/1/79]
- 27–30 23rd Int Symp and Instrument Display [Soc. of Photo-Optical Instrum. Eng.] San Diego, Cal. (SPIE, P.O. Box 10, Bellingham, Washington 98225) [4/ 30/79]

- 27–30 Turbulence and Mass Loss in Stellar Atmospheres London, Ontario, Canada 1/79
- 27-31 Star Clusters Victoria, BC, Canada 1/79
- 27–31 8th Int Conf on Amorphous and Liquid Semiconductors Cambridge, Mass. 11/78
- 27-31 27th Congress of Int Union of Pure and Applied Chemistry Helsinki, Finland 3/78
- 27-1 4th Int Symp on Plasma Chemistry Zurich, Switzerland 9/78
- 27-8 Wrkshp on Physics of Plasmas Close to Thermonuclear Conditions Varenna, Italy 7/78
- 27–31 Int Symp on Non-Conventional Energy Trieste, Italy 1/79
- 27–31 Solar and Interplanetary Dynamics [Int. Astron. Union] Cambridge, Mass. (M. Dryer, Space Environment Lab., NOAA, Boulder, Colo. 80303) [3/1/79]
- 28-31 Int Conf on Layered Materials and Intercalates [NATO; Shell; Exxon; Univ. of Nijmegen] Nijmegen, The Netherlands (H. W. Myron, Faculty of Science, Univ. of Nijmegen, Toernooiveld, Nijmegen, The Netherlands) [4/79]
- 28-31 ☐ Phonon Scattering in Condensed Matter (previous calendars have incorrectly listed the date of this conference) [IUPAP] Providence, R.I. (H. J. Marris, Brown Univ., Providence, R.I. 02912)
- 28-31 Int Symp on Mechanics of Sound Generation in Flow Göttingen, Fed. Rep. of Germany 7/78
- 29-31 Neutron Scattering and Magnetism Jülich, Fed. Rep. of Germany 1/79
- 29–4 11th Int Conf on Physics of Electronic and Atomic Collision Kyoto, Japan 5/78

SEPTEMBER 1979

- 3-5 5th Int Conf on Erosion by Liquid and Solid Impact Cambridge, UK 3/79
- 3-6 Lasers in Photo Medicine and Photo Biology Florence, Italy (R. Pratesi, Laboratorio di Electronica Quantistica, Via Panciatichi 56/30, Firenze, Italy)
- 3-6 EMAG '79 Brighton, UK 11/78
- 3-7 4th Eur Meeting on Ferroelectricity Portoroz, Yugoslavia 1/79
- 3–7 14th European Congress on Molecular Spectroscopy Frankfurt/Main, Fed. Rep. of Germany 11/78
- 9-14 Linear Accel Conf Montauk, N.Y. 3/79
- 10-11 Magnetic Recording on Particulate Media Gardone Riviera, Italy 3/79
- 10-12 Biennial Polymer Physics Conf Weybridge, UK 3/79
- 10-13 3rd Int Conf: Dielectric Materials, Measurements and Applications Birmingham, UK 1/79
- 10-13 12th Annual Quantum Theory Conf Oxford, UK 3/79
- 10-14 Eur Solid State Devices Research Conf Munich, Fed. Rep. Germany 3/79
- 10-14 Int Conf on Mossbauer Spectroscopy Portoroz, Yugoslavia 1/79
- 10-14 Theory and Applic of Moment Methods

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- 10-14 9th Int Conf on the Properties of Steam Munich, Germany 11/78
- 10–14 Laser Probes for Combustion Chemistry Washington, D.C. 3/79
- 10-14 Optical Methods in Mechanics of Solids Poitiers, France 1/79
- 10-14 Symp on Atomic Spectroscopy Tucson, Ariz. 11/78
- 10-15 2nd Eur Crystal Growth Conf Lancaster, UK 1/79
- 10-15 Int Symp on Nuclear Quadrupole Resonance Spectroscopy Toulouse, France 9/78
- 11–13 Excimer Lasers Charleston, S.C. (J. W. Quinn, OSA, 2000 L Street, N.W., Washington, D.C. 20036)
- 11–14 Int Conf on Noise Control Engineering Warszawa, Poland 9/78
- 11-14 Soft Magnetic Materials 4 Munster, Fed. Rep. Germany 3/79
- 12-14 Annual Conf of the Health Physics Assoc Bristol, UK 3/79
- 12-14 **Charge-Coupled Devices** Edinburgh, UK 3/79
- 16–20 Decontamination & Decommissioning of Nuclear Facilities Sun Valley, Idaho 3/79
- 17–21 Optical Communication Conference Amsterdam, The Netherlands 3/79
- 17-21 6th Colloq on High Resolution Molecular Spectroscopy Tours, France 3/79
- 17-21 **26th Int Symp on Macromolecules** Mainz, Fed. Rep. of Germany *1/79*
- 17-21 4th Colloque Spécialisé Ampère: Dynamic Processes in Molecular Systems as studied by RF-Spectroscopy Leipzig, German Dem. Rep.
- 17-21 3rd Europhysics Topical Conf on Lattice Defects in Ionic Crystals Canterbury, UK 1/79
- 17-21 9th Eur Conf on Controlled Fusion and Plasma Physics Oxford, U.K. 1/79
- 17–22 Colloq on the Physics of Dense Matter Paris, France 3/79
- 18-21 4th Nat Quantum Electronics Conf Heriot-Watt, UK 3/79
- 18–21 5th Eur Solid State Circuits Conf [Inst. of Elec. Eng.; IOP] Southampton, UK (IEE Conf. Dept., Savoy Place, London WC2R OBL) [5/2/79]
- 18–21 6th Int Conf on Atomic Masses East Lansing, Mi. 1/79
- 19-21 4th Nat Quantum Electronics Conf Edinburgh, UK 11/78
- 20–23 5th Spanish Vacuum Meeting Barcelona, Spain 1/79
- 23–26 World Telecommunications Forum Geneva, Switzerland 3/79
- 24-27 Non-Traditional Approaches to the Solid-Electrolyte Interface Snowmass, Colo. 1/79
- 24–28 Joint Meeting of the German, Austrian and Swiss Physical Soc Ulm, Fed. Rep. Germany (Deutsche Physikalische Gesellschaft, Hauptstrasse 5, D-5340, Bad Honnef, Fed. Rep. Germany)
- 24–28 Symp on Fast Reactor Physics Aixen-Provence, France 9/78
- 25-26 Autumn Meeting of the British Radiofrequency Spectroscopy Group Nottingham, UK 1/79

- 25-27 Military Electronics Defense Expo '79 Wiesbaden, Fed. Rep. Germany (F. L. Morritz, Indust. & Scientific Conf. Mngt., Inc., 222 W. Adams St., Chicago, III. 60606) [5/15/79]
- 25-27 Organisation of Macromolecules in Condensed Phases Cambridge, UK
- 25–28 43rd Physics Conf Ulm, Fed. Rep. of Germany 1/79
- 26–27 Ultrasonics Symp New Orleans, La. 11/78

OCTOBER 1979

- 1–3 World Conf of the Nuclear Target Devel Soc Boston, Mass. (J. Jaklovsky, New England Nuclear, Nucleides/ Sources Div., 601 Treble Cove Rd., North Billerica, Mass. 01862)
- 2-5 Vacuum Symposium [AVS] New York, N.Y. (R. S. Berg, Sandia Lab., Org. 2354, Albuquerque, N.M. 87185)
- 6-10 Engineering in Medicine and Biology Denver, Colo. 11/78
- 7-11 1979 Joint Power Generation Conf [IEEE; Amer. Soc. of Mech. Eng.; Amer. Soc. of Chem. Eng.] Charlotte, N.C. (Harold K. Couch, Brown & Morrison, P.O. Box 4307, Charlotte, N.C. 28204)
- 8-10 1979 Int Conf on Cybernetics and Society [IEEE] (J. D. Palmer, Administrator, Research & Special Progs. ADMI Dept. of Transportation, Washington, D.C. 20590)
- 8–10 Session on Physical Systems Science [IEEE Systems, Man and Cybernetics Society] Denver, Colo. (A. P. Sage, University of Virginia, Charlottesville, Va. 22901)
- 8-12 OSA Annual Meeting Rochester, N.Y.
- 8–13 6th Int Symp on Exoemission and Dosimetry [Physical Soc of German Dem. Rep.; Wilhelm-Pieck-Univ.] Rostock, German Dem. Rep. (H. Glaefeke, Dept. of Physics, Wilhelm-Pieck-Univ., Universitatsplatz 3, DDR-25 Rostock) [5/31/79]
- 9-11 Progress & Problems in Radio—Element Analysis [ANS] Gatlinburg, Tenn. (A. L. Harrod, Analytical Chem. Div., ORNL—P.O. Box X, Oak Ridge, Tenn. 37830)
- 9–12 21st Nat Congress of the Italian Radiation Protection Assoc Palermo, Italy (G. Agelao, Instituto di Applicazioni e Impianti Nucleari, viale delle Scienze, Palermo, Italy)
- 9-12 32nd Gaseous Electronics Conf [Westinghouse R&D Center APS Div. of Electron and Atomic Physics] Pittsburgh, Pa. (P. J. Chantry, Westinghouse R&D Center, 1310 Beulah Rd., Pittsburgh, Pa. 15235) [7/13/ 79]
- 14-17 Electronic and Aerospace Systems Convention (EASCON) [IEEE] Washington, D.C. (W. C. Weber Jr, 999 N. Sepulveda Blvd., El Segundo, Ca. 90245)
- 16-17 Quantitative Surface Analysis [German Physical Soc.; Netherlands Vacuum Soc.; French Vacuum Soc.; Metals Soc.] (The Meetings Officer, IOP, 47 Belgave Sq., London SW1X 8QX) [8/1/79]
- 17–19 Nuclear Science Symp San Francisco, Cal. 11/78

- 18-20 APS Nuclear Physics Div Meeting Knoxville, Tenn. 11/78
- 21–25 Conf on Elec Insulation and Dielectric Phenomena [Nat. Res. Council Committee on Dielectrics] Whitehaven, Pa. (E. Sacher, IBM, E236M11, P.O. Box 6, Endicott, N.Y. 13760)
- 22-23 12th Annual Synch Rad Users Group Meeting Madison, Wisc. (E. M. Rowe, Director, Synch. Rad. Center, Physical Sciences Lab., Univ. of Wisc., Madison, P.O. Box 6, Stoughton, Wisc. 53589)
- 22-24 Toxicology of Respirable Particles
 [DOE; Battelle Memorial Inst.] Richland, Washington (J. A. Rising, Symp. Sec'ty, Biology Dept., 331 Bldg., Battelle, Pacific Northwest Labs., Richland, Wash. 99352) [6/4/79]
- 22-26 Nuclear Cross Sections for Technology [APS; ORNL; Univ. of Tenn.; DOE; NBS; IUPAP] Knoxville, Tenn. (J. L. Fowler, Physics Dept., Univ. of Tenn., Knoxville, Tenn.) [7/23/79]
- 24-27 AAS Division of Planetary Sciences Meeting St. Louis, Mo.
- 25-26 Stanford Synch Rad Lab Users Group Meeting Stanford, Cal. (W. K. Warburton, SSRL-SLAC Bin 69, P.O. Box 4349, Stanford, Cal. 94305)
- 28–1 S of R 50th Anniv Meeting Boston, Ma.
- 29–30 13th LAMPF Users Group Meeting [Los Alamos Scient. Lab.] Los Alamos, N.M. (D. R. F. Cochran, MS-830, Liaison Officer, LAMPF Users Group, Inc., LASL, P.O. Box 1663, Los Alamos, N.M. 87545) 3/79
- 30-31 11th Annual Symp on Optical Materials for High Power Lasers [ASTM; Office of Naval Research; Defense Adv. Res. Proj. Agency; DOE; NBS] Boulder, Colo. (A. J. Glass, L-488, Lawrence Livermore Laboratory, P.O. Box 5508, Livermore, Cal. 94550) [9/10/79]
- Separation Science and Technol for Energy Applications [DOE; ORNL] Gatlinburg, Tenn. (A. P. Malinauskas, ORNL, P.O. Box X, Oak Ridge, Tenn. 37830) [6/15/79]

NOVEMBER 1979

- 3 AAPT Fall Meeting Santa Clara, Cal. (P. T. McCormick, University of Santa Clara, Santa Clara, Cal. 95053)
- 8-10 Albert Einstein as an Intercultural and Interdisciplinary Phenomenon: His Influence in All Fields of Thought [Hofstra University] Hempstead, N. Y. (University Center for Cultural & Intercultural Studies, Hofstra Univ., Hempstead, N. Y. 11550)
- 8–10 APS Southeastern Section Chattanooga, Tenn. 11/78
- 11-16 ANS Winter Meeting San Francisco, Cal. 11/78
- 12-15 Int Conf on Crystalline Electric Fields and Structural Effects in f-Electron Systems [Temple University] Philadelphia, Pa. (J. E. Crow, Physics Dept., Temple Univ., Philadelphia, Pa. 19122) [8/1/79]
- 12-16 APS Plasma Physics Div Meeting Boston, Mass. 11/78
- 13–16□ Engineering Problems of Fusion Research [Lawrence Livermore Lab., IEEE; DOE] San Francisco, Cal. (L. Pedrotti, Lawrence Livermore Laboratory, P.O. Box 808, L-540, Livermore, Cal. 94550)

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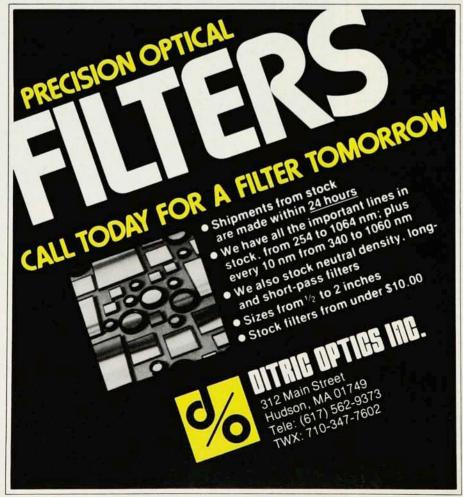


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- 14–15 Symp on Fibers and Electrostatics in Filtration [The Fiber Soc; The Filtration Soc] Princeton, N.J. (The Fiber Society, Inc., P.O. Box 625, Princeton, N.J.)
- 14–16 Micro & Mini Computer Conf [IEEE Region 5] Houston, Texas (S. C. Lee, School of Elec. Eng. and Computing Sciences, Univ. of Oklahoma, Norman, Ok., 73019) [5/15/79]
- 15-17 Present Needs and Future Trends in Neutron Crystallography and Spectroscopy Argonne, III. 1/79
- 16–17 18th Eastern Theoretical Physics Conf College Park, Md. 9/78
- 18-23 9th World Conf on Nondestructive Testing Melbourne, Australia (9th WCNDT, 191 Royal Parade, Parkville, Victoria 3052, Australia)
- 19–21 APS Fluid Dynamics Div Meeting West Lafayette, Ind. 11/78
- 19–23 2nd Asian Congress on Radiation Protection [Philippine Association for Radiation Protection] Manila, Philippines (C. T. Anatalio, Radiation Health Office, Dept. of Health, Republic of the Philippines, Manila, Philippines)
- 24–28 2nd Asia and Oceania Congress of Nuclear Medicine Manila, Philippines (L. S. Villadolid, Philippino Society of Nuclear Medicine, Dept. of Medicine, Taft Ave., Manila, Philippines)
- 25-30 Joint Meeting of AAPM with Radiological Society of North America Atlanta, Ga.
- 26–28 Physics of Semiconductor Surfaces and Interfaces [EPS, Condensed Matter Div.] Paris, France (C. Sebenne, PSSI. Secretary, Laboratoire de Physique des Solides, Tour 13, Université Pierre et Marie Curie, 4, Place Jussieu, 75230 Paris Cedex 05, France) [9/13/79]
- 26–28 Nat Telecommunications Conf [IEEE] Washington, D.C. (J. N. Birch, Magnovox Co., 8750 Georgiaave, Silver Springs, Maryland 2090 1)
- 26-29 Measurement Technology for Safeguards and Materials Control Conf Kiawah Island, S.C. 1/79
- 26–30 ASA Fall Meeting Salt Lake City, Utah
- 26-1 Int Magnetospheric Study Symp Bundoora, Australia 1/79

DECEMBER 1979

- 2-15 17th General Assembly of the IUGG Canberra, Australia 1/79
- 3-7 American Geophysical Union Fall Meeting San Francisco, Ca. 1/79
- 10-12 2nd Miami Int Conf on Alternative Energy Sources [Univ. of Miami] Miami Beach, Fla. (T. N. Veziroglu, Dir., Clean Energy Res. Inst., Univ. of Miami, P.O. Box 248294, Coral Gables, Fla. 33124) [4/1/79]
- 10-12 APS Electron and Atomic Physics Div Meeting Houston, Texas 11/78
- 10-15 4th Int Conf on Submillimeter Waves Miami Beach, Fla. 11/77
- 17-21 Int Conf on Nonlinear Dynamics [N. Y. Acad of Sciences] New York, N. Y. (R. Helleman, School of Physics, Georgia Tech. Atlanta, Ga. 30332

JANUARY 1980

 17th Annual Solid State Physics Conf Warwick, UK (The Meetings Officer,



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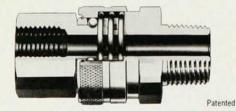
Patented



 Single or double-end shut-off
 Pressuretight, vacuum-tight seal • Sizes 1/8" to 1/2" – tube or pipe ends • Positive push to connect – pull to disconnect • 360° swivel action Service ratings to 3000 psi and 450°F (232°C) Available from local stocks in brass or 316SS

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"QF" Series (FULL FLOW)



 Full flow without orifice restrictions
 Use on rigid or flexible tubing or piping Straight line, push-pull operation • 360° swivel action • O-Rings changeable without disassembling body • Tube or pipe end connections in 1/4", 1/2", 3/4" and 1" sizes • Service ratings to 10,000 psi and 450°F (232°C) Immediately available from local stocks in brass or 316SS

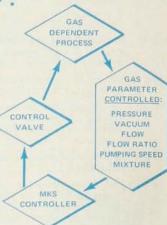
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MKS automatic gas control systems can give you the optimized solution!

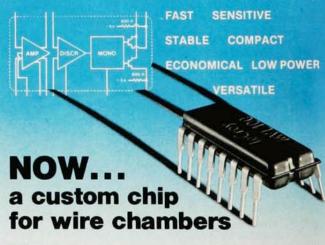
MKS now offers 5 different pressure/flow control systems, to give you the best gas control, at the lowest cost. Use our controllers with any pressure, flow, or vacuum transducer; or with any other gas-dependent variable that provides a DC signal.



Control gas parameters such as pressure, vacuum, flow, flow ratio, pumping speed, mixtures, etc. - automatically - accurately - repeatably - reliably



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LeCroy announces the new state-of-the-art for drift chamber and MWPC amplifier/discriminators. The MVL100 is a *single chip* containing a wideband amplifier, a discriminator, a monostable, an ECL line driver, and a $50\,\Omega$ linear driver. Each section of the device has been designed without compromising performance. As a result, the MVL100 specifications are unexcelled:

Sensitivity: ± 200 µV typical. Slewing: 1.5 nsec typical (2X to 20X).

Output Width: 10 nsec and up. Power Dissipation: 1/2 watt.

Output Jitter: < 0.1%. Input: Differential; double diode protected.

All this performance is available now. Contact your LeCroy representative for complete data on the MVL100. Also available: the Model MVL100-TB Test Board as well as the 7790 Sixteen-Channel Chamber Card.



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Scientific Instruments Selector Guide



Electrometers: Lowest current, high resistance, charge and high impedance voltage measurements

Picoammeters: Low current measurements Nanovoltmeters: Low voltage measurements Milliohmmeters: Low resistance measurements

Current and Voltage Sources: High stability low noise supplies







Model 480 1pA (10⁻¹²A), 3½-Digit Picoammeter



Electrometers

Keithley makes a complete line of electrometers capable of measuring currents as low as 10aA and charge less than 1fC with low input voltage drop. Resistance as high as $100T\Omega$ and voltages with up to 10000TΩ input resistance may be measured.

Nanovoltmeters

Keithley nanovoltmeters have the most sensitivity available.

Our complete line includes seven instruments all with noise levels below 1µV. The highly acclaimed Model 148 Nanovoltmeter is the most sensitive voltmeter in the world-InV noise.

Current and Voltage Sources

Keithley current and voltage sources have low noise and high stability. Active current sources cover the range from 100pA to 1A. Positive and negative output voltage sources cover the range from 5mV to +3.1kV. Nanovolt and picoamp passive calibration sources are also available.

Picoammeters

Keithley analog and digital picoammeters use a feedback measurement technique which maintains a minimum input voltage drop; often less than 1mV. The Keithley line offers a variety of capabilities including 15us rise time, current suppression, logarithmic output covering an 8-decade span and programmable range selection.

Milliohmmeters

Keithley milliohmmeters use AC or DC measurement techniques. Resolution extends to $10\mu\Omega$. Sample dissipation in the AC instruments is in the range of 720pW to 10µW.



- IOP, 47 Belgrave Sq., London SW1X 8QX, UK)
- 6-11 Developments in Atomic Plasma Spectrochemical Analyses San Juan, Puerto Rico (Winter Conf. 1980, ICP Information Newsletter, Chemistry— GRC Tower I, Univ. of Mass., Amherst, Mass. 01003) [6/1/79]
- 7-10 14th IEEE Photovoltaic Specialists
 Conf San Diego, Cal. (C. E. Backus,
 College of Engrg. & Applied Sciences,
 Arizona State Univ., Tempe, Ariz.)
 [7/15/79]
- 13-17 AAS Meeting San Francisco, Cal.
- 21-24 APS/AAPT Meeting Chicago, III.
- 28-30 AAS Division of High Energy Astrophysics Meeting Cambridge, Mass.

FEBRUARY 1980

- 11–13 3rd Int Conf on Non-Destructive Evaluation in Nuclear Industry [ANS] Salt Lake City, Utah (V. P. T. Charyulu, Idaho State University, Box 197, Pocatello, Idaho 83201)
- 13-15 Int Solid State Circuits Conf San Francisco, Cal. 1/79
- 25-29 Int Alfred Wegener Symp. Berlin, Fed. Rep. Germany (Internationales Alfred Wegener Symp. c/o P. Giese, Rheinbabenallee 49, D-1000, Berlin 33, Fed. Rep. Germany) [3/1/79]
- 26-28 Conf on Lasers and Electro-Optical Systems [OSA] San Diego, Cal. (OSA, 2000 L St., NW, Suite 620, Washington, D.C. 20036)

MARCH 1980

- 5-9 Pittsburgh Conf on Analytical Chem and Applied Spectroscopy Pittsburgh, Pa. 1/79
- 24-28 APS General Meeting New York, N.Y. (W. W. Havens Jr, APS, 335 East 45th Street, New York, N.Y. 10017)
- Int Symp on the Properties and Applications of Metal Hydrides [Univ. of Denver; DOE; Ergenics-MPD Technology] Colorado Springs, Colo. (G. D. Sandrock, Inco Research & Development Center, Internat. Nickel Co., Inc., Sterling Forest, Suffern, N.Y. 10901) [8/1/79]

APRIL 1980

- 7-11 Int Conf on Plasma Physics [IUPAP] Nagoya, Japan (Y. H. Ichikawa, Inst. of Plasma Physics, Nagoya Univ., Nagoya 464, Japan) [11/30/79]
- 8–10 Int Reliability Physics Symp [IEEE] Las Vegas. Nev.
- 14-16 Int Conf on Acoustics, Speech and Signal Processing [IEEE Acoustics, Speech and Signal Processing Soc] Denver, Colo. (J. E. Ashley Dept. of Elec. Eng., Univ. of Colo., 1100 14th St., Denver, Colo. 80202)
- 14-17 4th Int Conf on Nuclear Methods in Environmental & Energy Research [ANS] Columbia, Mo. (J. Vogt, 226 Research Reactor Facility, University of Missouri, Columbia, Mo. 65201)
- 21–24 APS General Meeting Washington, D.C. (W. W. Havens Jr, APS, 335 E. 45th St., New York, N.Y. 10017)
- 21-25 ASA Meeting Atlanta, Ga.
- 21–25 Intermag '80 [IEEE] Boston, Mass. (D. I. Gordon, Naval Surface Weapons Center, White Oak Lab., Silver Springs, Md. 20901)

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