

Astronomy, cosmology and space physics

Astronomy and Astrophysics Abstracts, Vol. 42: Literature 1986, Part 2. S. Böhm, U. Esser, H. Hefele, I. Heinrich, W. Hofmann, D. Krahn, V. R. Matas, L. D. Schmadel, G. Zech, eds. 1169 pp. Springer-Verlag, New York, 1987. ISBN 0-387-17898-8 \$129.00 hc. *Reference*

Celestial Mechanics: A Computational Guide for the Practitioner. L. G. Taff. 520 pp. Wiley, New York, 1985. ISBN 0-471-89316-1 \$47.50 hc. *Reference text*

The Classification of Stars. C. Jaschek, M. Jaschek. 413 pp. Cambridge U. P., New York, 1987. ISBN 0-521-26773-0 \$79.50 hc. *Monograph*

Exploring the Universe with the IUE Satellite. *Astrophysics and Space Science Library 129.* Y. Kondo, ed. 787 pp. Reidel, Boston, 1987. ISBN 90-277-2380-X \$49.50 hc. *Compendium*

Gravitational Physics of Stellar Galactic Systems. *Cambridge Monographs on Mathematical Physics.* W. C. Saslaw. 491 pp. Cambridge U. P., New York, 1987 [1985]. ISBN 0-521-34975-3 \$34.50 pb

Highlights of Modern Astrophysics: Concepts and Controversies. Proc. Mtg., Ithaca, N. Y., October 1984. S. L. Shapiro, S. A. Teukolsky, eds. 389 pp. Wiley, New York, 1986. ISBN 0-471-82421-6 \$37.50 hc. *Festschrift for Edwin Salpeter*

Interferometry and Synthesis in Radio Astronomy. A. R. Thompson, J. M. Moran, G. W. Swenson. 534 pp. Wiley, New York, 1986. ISBN 0-471-80614-5 \$59.95 hc. *Monograph*

Interstellar Processes. *Astrophysics and Space Science Library 134.* Proc. Symp., Grand Teton National Park, Wyo., July 1986. D. J. Hollenbach, H. A. Thronson, eds. 807 pp. Reidel, Boston, 1987. ISBN 90-277-2482-2 \$139.00 hc; ISBN 90-277-2485-7 \$24.50 pb

Late Stages of Stellar Evolution. *Astrophysics and Space Science Library 132.* Proc. Wksp., Calgary, Canada, June 1986. S. Kwok, S. R. Pottasch, eds. 426 pp. Reidel, Boston, 1987. ISBN 90-277-2446-6 \$79.00 hc

Magnetic Fields in Astrophysics. *Fluid Mechanics of Astrophysics and Geophysics 3.* Ya. B. Zeldovich, A. A. Ruzmaikin, D. D. Sokoloff (translated from Russian; P. H. Roberts, ed.). 365 pp. Gordon and Breach, New York, 1983. ISBN 0-677-06380-6 \$80.00 hc. *Monograph*

Nearly Normal Galaxies: From the Planck Time to the Present. *Santa Cruz Summer Workshops in Astronomy and Astrophysics 8.* Proc. Wksp., Santa Cruz, Calif., July 1986. S. M. Faber, ed. Springer-Verlag, New York, 1987. ISBN 0-387-96521-1 \$35.00 hc

Physics of Be Stars. Proc. IAU Colloq. 92, Boulder, Colo., August 1986. A. Slettebak, T. P. Snow, eds. 557 pp. Cambridge U. P., New York, 1987. ISBN 0-521-33078-5 \$79.50 hc

The Quest for SS 433: The Celestial Detective Story That Changed Our Understanding of the Universe. D. H. Clark. 206 pp. Penguin, New York, 1986 [1985]. ISBN 0-14-00-8996-9 \$6.95 pb. *Lay readers*

Spectroscopy of Astrophysical Plasmas. *Cambridge Astrophysics Series.* A. Dalgarno, D. Layzer, eds. 357 pp. Cambridge U. P., New York, 1987. ISBN 0-521-26315-8 \$54.50 hc; ISBN 0-521-26927-X \$19.95 pb. *Compendium*

Stellar Populations. *Space Telescope Science Institute Symposium Series 1.* Proc. Mtg., Baltimore, Md., May 1986. C. A. Norman, A. Renzini, M. Tosi, eds. 245 pp. Cambridge U. P., New York, 1986. ISBN 0-521-33380-6 \$32.50 hc

The Study of Variable Stars Using Small Telescopes. Proc. Symp., Toronto, July 1985. J. R. Percy, ed. 265 pp. Cambridge U. P., New York, 1986. ISBN 0-521-33300-8 \$34.50 hc

Superluminal Radio Sources. Proc. Wksp., Big Bear, Calif., October 1986. J. A. Zensus, T. J. Pearson, eds. 361 pp. Cambridge U. P., New York, 1987. ISBN 0-521-34560-X \$49.50 hc. *Festschrift for Marshall Cohen*

Variable Stars. M. Petit (translated from French by W. J. Duffin). 257 pp. Wiley, New York, 1987 [1982]. ISBN 0-471-90920-3 \$64.95 hc. *Monograph for observational astronomers*

Very High Energy Gamma Ray Astronomy. *NATO ASI Series C: Mathematical and Physical Sciences 199.* Proc. Wksp., Durham, UK, August 1986. K. E. Turver, ed. 308 pp. Reidel, Boston, 1987. ISBN 90-277-2459-8 \$69.00 hc

Webb Society Deep-Sky Observer's Handbook, Vol. 7: The Southern Sky. K. G. Jones, ed. 198 pp. Enslow, Hillside, N. J., 1987. ISBN 0-89490-134-6 \$16.95 pb. *Reference for amateur astronomers*

Atomic, molecular and chemical physics

Advances in Multi-Photon Processes and Spectroscopy, Vol. 3. S. H. Lin, ed. 335 pp. World Scientific, Singapore (Teaneck, N. J.), 1987. ISBN 9971-50-289-5 \$52.00 hc. *Compendium*

Giant Resonances in Atoms, Molecules and Solids. *NATO ASI Series B: Physics 151.* Proc. Inst., Les Houches, France, June 1986. J. P. Connerade, J. M. Esteve, R. C. Karnatak, eds. 570 pp. Plenum, New York, 1987. ISBN 0-306-42564-5 \$95.00 hc

Molecular Structure and Energetics. J. F. Liebman, A. Greenberg, eds. VCH, New York, 1986-87. **Vol. 1: Chemical Bonding Models.** 360 pp. ISBN 0-89573-139-8 \$77.50 hc. **Vol. 2: Physical Measurements.** 388 pp. ISBN 0-89573-140-1 \$77.50 hc. **Vol. 3: Studies of Organic Molecules.** 385 pp. ISBN 0-89573-141-X \$77.50 hc. **Vol. 4: Biophysical Aspects.** 405 pp. ISBN 0-89573-336-6 \$77.50 hc. *Compendium*

Perturbations in the Spectra of Diatomic Molecules. H. Lefebvre-Brion, R. W. Field. 420 pp. Academic, San Diego, Calif., 1986. ISBN 0-12-442690-5 \$80.00 hc; ISBN 0-12-442691-3 \$44.50 pb. *Monograph*

Stochasticity and Intramolecular Redistribution of Energy. *NATO ASI Series C: Mathematical and Physical Sciences 200.* Proc. Wksp., Orsay, France, June 1986. R. Lefebvre, S. Mukamel, eds. 298 pp. Reidel, Boston, 1987. ISBN 90-277-2462-8 \$74.00 hc

Electricity, magnetism and fields

Electromagnetics. Second edition. B. B. Laud. 335 pp. Halsted (Wiley), New York, 1987. ISBN 0-470-20746-9 \$24.95 hc. *Text*

EMP Interaction: Principles, Techniques, and Reference Data. A Handbook of Technology from the EMP Interaction Notes. Revised printing. K. S. H. Lee, ed. 744 pp. Hemisphere, New York, 1986 [1980]. ISBN 0-89116-581-9 \$75.00 hc. *Compendium on electromagnetic pulse interaction*

Magnetic and Electromagnetic Shielding. T. Rikitake. 224 pp. Reidel, Boston, 1987. ISBN 90-277-2406-7 \$84.00 hc. *Monograph*

Network Analysis and Practice. A. K. Walton. 344 pp. Cambridge U. P., New York, 1987. ISBN 0-521-26459-6 \$60.00 hc; ISBN 0-521-31903-X \$17.95 pb. *Text*

Principles of Statistical Radiophysics, Vol. 1: Elements of Random Process Theory. S. M. Rytov, Yu. A. Kravtsov, V. I. Tatarskii (translated from Russian by A. P. Repev). 253 pp. Springer-Verlag, New York, 1987 [1976]. ISBN 0-387-12562-0 \$69.00 hc. *Monograph*

Elementary particles, high-energy physics

Introduction to High Energy Physics. Third edition. D. H. Perkins. 449 pp. Addison-Wesley, Reading, Mass., 1987. ISBN 0-201-12105-0 \$38.95 hc. *Text*

Particle Physics. *NATO ASI Series B: Physics 150.* Proc. Inst., Cargèse, France, July 1985. M. Lévy, J.-L. Basdevant, M. Jacob, D. Speiser, J. Weyers, R. Gastmans, eds. 453 pp. Plenum, New York, 1987. ISBN 0-306-42562-9 \$79.50 hc

Proceedings of the 14th International Winter Meeting on Fundamental Physics (e⁺e⁻ Physics at High Energies). Proc. Mtg., Sant Feliu de Guixols, Spain, March 1986. E. Fernandez, A. Mendez, eds. 556 pp. World Scientific, Singapore (Teaneck, N. J.), 1987. ISBN 9971-50-228-3 \$56.00 hc

Proceedings of the 6th International Conference on Physics in Collision. Proc. Mtg., Chicago, September 1986. M. Derrick, ed. 542 pp. World Scientific, Singapore (Teaneck, N. J.), 1987. ISBN 9971-50-281-X \$58.00 hc; ISBN 9971-50-282-8 \$28.00 pb

Energy and environment

A Guide to Small Wind Energy Conversion Systems. J. Twidell, ed. 155 pp. Cambridge U. P., New York, 1987. ISBN 0-521-26898-2 \$27.95 hc. *Reference compendium*

ACADEMIC PRESS

The Rewiring of America The Fiber Optics Revolution

C. David Chaffee

CONTENTS: The Birth of a Technology. Fiber Optics: First Steps. The Battle for Acceptance. Fiber Scores Its First Breakthroughs. The Economics of Fiber. Divergence and Its Impact. Rewiring the Country. Rewiring the Cities. Revitalizing the Computer Industry. The Business of Fiber Optics. Refitting the U.S. Military. 'The Oceans will be Littered with Fiber.' A World of Applications. Networks of Tomorrow.

November 1987, c. 208 pages
\$19.95 (tentative), ISBN: 0-12-166360-4

Handbook of Digital Signal Processing Engineering Applications

edited by Douglas F. Elliott
Rockwell International Corporation, Anaheim, California

CONTENTS: Transforms and Transform Properties. Design and Implementation of Digital FIR Filters. Multirate FIR Filters for Interpolating and Decimating. IIR Digital Filters. Low Noise and Low Sensitivity Digital Filters. Fast Discrete Transforms. Fast Fourier Transforms. Time Domain Signal Processing with the DFT. Spectral Analysis. Deconvolution. Time Delay Estimation. Adaptive Filtering. Recursive Estimation. Mechanization of Digital Signal Processors. Index.

1987, c. 1024 pages, \$90.00 (tentative)
ISBN: 0-12-237075-9

Astronomical Optics

Daniel J. Schroeder
Beloit College, Wisconsin

Written by a recognized expert in the field, this clearly presented, well-illustrated book provides both advanced level students and professionals with an authoritative, thorough presentation of the characteristics, including advantages and limitations, of telescopes and spectrographic instruments used by astronomers of today.

November 1987, c. 336 pages
\$39.95 (tentative), ISBN: 0-12-629805-X

Image Recovery Theory and Application

edited by Henry Stark
Rensselaer Polytechnic Institute, Troy, New York

1987, 529 pages, \$75.00, ISBN: 0-12-663940-X

Introduction to Synthetic Electrical Conductors

John R. Ferraro
Loyola University, Chicago, Illinois

Jack M. Williams
Argonne National Laboratory, Illinois

This book provides an up-to-date treatment of synthetic metals—a rapidly moving area of industrial and academic research. It discusses four classes of conductors having a high metal-like conductivity; synthetic organics, charge-transfer salts; organic polymers, and transition-metal-containing conductors.

1987, 323 pages, \$49.95, ISBN: 0-12-254120-0

Call Toll Free

1-800-321-5068



Order from your local bookseller
or directly from

ACADEMIC PRESS

Harcourt Brace Jovanovich, Publishers

Book Marketing Department

1250 Sixth Avenue, San Diego, CA 92101-4311

San Diego New York Berkeley Boston
London Sydney Tokyo Toronto

Prices subject to change without notice. KH/GD—15107

©1987 by Academic Press, Inc. All Rights Reserved.

Circle number 66 on Reader Service Card

Perturbations in the Spectra of Diatomic Molecules

Helene Lefebvre-Brion
Laboratoire de Photophysique Moleculaire,
Université de Paris-Sud, Orsay, France

Robert W. Field
Massachusetts Institute of Technology, Cambridge

CONTENTS: Introduction. Terms Neglected in the Born-Oppenheimer Approximation. Methods of Deperturbation. Interpretation of the Perturbation Matrix Elements. Effects of Perturbations on Transition Intensities. Predissociation. Autoionization. Each chapter includes references. Index.

In Paperback: \$34.95, ISBN: 0-12-442691-3
Casebound: \$80.00, ISBN: 0-12-442690-5
1986, 440 pages

The Foundations of Magnetic Recording

John C. Mallinson
University of California, San Diego

The principle emphasis of this book is to cover the most important basic topics in magnetic recording in a manner which is both scientifically correct and yet readily understandable to the non-specialist. Problem sets and a list of further reading material is included.

1987, c. 170 pages, \$29.95
ISBN: 0-12-466625-6

Optical Signal Processing

edited by Joseph L. Horner
H.Q. Rome Air Development Center (AFSC),
Hanscom AFB, Massachusetts

Written by leading researchers in their field, this book covers topics in the forefront of modern optical signal processing. Articles are review in nature and cover both theory and applications. Major topics include:

- Pattern Recognition
- Temporal Signal Processing
- Devices and Components
- Optical Numerical Processing
- Transformations

October 1987, c. 522 pages, \$72.00
ISBN: 0-12-355760-7

Remember the Woodstock of Physics

The 1988 March
Meeting of the
American Physical
Society
will again include the
APS SHOW.

Featuring cryogenic,
vacuum, electro-optical,
spectrometric and data
acquisition equipment.

Against a backdrop of
superconductivity.

March 22-24, 1988
Marriot Hotel
New Orleans, LA

To get on the waiting
list, wait a month.

But if you want
to reserve a booth,
call or write the
Advertising Division

A.I.P.

335 East 45th St.
New York, N.Y. 10017
(212) 661-9404

Energy 2000: An Overview of the World's Energy Resources in the Decades to Come. H. Knoepfel. 181 pp. Gordon and Breach, New York, 1986. ISBN 2-88124-074-7 \$42.00 *hc.* *Monograph*

Handbook of Thermodynamic High Temperature Process Data. A. L. Suris (translated from Russian). 601 pp. Hemisphere, New York, 1987 [1985]. ISBN 0-89116-609-2 \$139.95 *hc.* *Reference*

Heat and Mass Transfer in Refrigeration and Cryogenics. *Proceedings of the International Centre for Heat and Mass Transfer.* Proc. Symp., Dubrovnik, Yugoslavia, September 1986. J. Bougard, N. H. Afgan, eds. 665 pp. Hemisphere, New York, 1987. ISBN 0-89116-653-X \$165.00 *hc*

Introduction to Nuclear Power. J. G. Collier, G. F. Hewitt. 231 pp. Hemisphere, New York, 1987. ISBN 0-89116-269-0 \$49.95 *hc.* *Monograph*

Fluids and plasmas

Amorphous Polymers and Non-Newtonian Fluids. *IMA Volumes in Mathematics and Its Applications* 6. C. Dafermos, J. L. Ericksen, D. Kinderlehrer, eds. 195 pp. Springer-Verlag, New York, 1987. ISBN 0-387-96556-4 \$22.00 *hc.* *Compendium*

CIAMDA 87: An Index to the Literature on Atomic and Molecular Collision Data Relevant to Fusion Research. 315 pp. Int. Atomic Energy Agency, Vienna (US dist. Bernan-Unipub, Lanham, Md.), 1987. ISBN 92-0-039087-0 \$29.00 *pb.* *Reference; computer index to atomic and molecular collision data*

Convection and Chaos in Fluids. J. K. Bhattacharjee. 243 pp. World Scientific, Singapore (Teaneck, N. J.), 1987. ISBN 9971-50-224-0 \$34.00 *hc.* *Monograph*

Flow-induced Vibration of Circular Cylindrical Structures. S.-S. Chen. 464 pp. Hemisphere, New York, 1987. ISBN 0-89116-602-5 \$110.00 *hc.* *Monograph*

Inductively Coupled Plasma Emission Spectroscopy, Part 2: Applications and Fundamentals. *Monographs on Analytical Chemistry and Its Applications: Chemical Analysis* 90. P. W. J. M. Boumans, ed. 486 pp. Wiley, New York, 1987. ISBN 0-471-85378-X \$70.00 *hc.* *Compendium*

Physics of Complex and Supermolecular Fluids. *Exxon Monograph.* Proc. Symp., Annandale, N. J., June 1985. S. A. Safran, N. A. Clark, eds. 720 pp. Wiley, New York, 1987. ISBN 0-471-85081-0 \$49.95 *hc*

Theory of Simple Liquids. Second edition. J. P. Hansen, I. R. McDonald. 556 pp. Academic, San Diego, Calif., 1986. ISBN 0-12-323851-X \$95.00 *hc.* *Monograph*

Geophysics and planetary science

Atmospheric Chemistry and Physics of Air Pollution. J. H. Seinfeld. 738 pp. Wiley, New York, 1986. ISBN 0-471-82857-2 \$59.95 *hc.* *Monograph reference text*

Compositions, Structure and Dynamics of the Lithosphere-Asthenosphere Sys-

tem. *Geodynamic Series* 16; *International Lithosphere Program* 135. K. Fuchs, C. Froidevaux, eds. 327 pp. Am. Geophys. Union, Washington, D. C., 1987. ISBN 0-87590-518-8 \$33.00 (\$23.10, AGU and GSA members) *hc.* *Compendium*

Cosmic Debris: Meteorites in History. J. G. Burke. 445 pp. U. of Calif. P., Berkeley, 1986. ISBN 0-520-05651-5 \$45.00 *hc.* *Monograph*

Earth Book: World Atlas. 327 pp. Graphic Learning, Boulder, Colo., 1987. ISBN 0-87746-100-7 \$65.00 *hc.* **Concise Earth Book: World Atlas.** 215 pp. Graphic Learning, Boulder, Colo., 1987. ISBN 0-87746-101-5 \$12.95 *hc.* *Environmental atlas*

Elements, Oxides, Silicates: High-Pressure Phases with Implications for the Earth's Interior. *Oxford Monographs on Geology and Geophysics* 4. L. Liu, W. A. Bassett. 250 pp. Oxford U. P., New York, 1986. ISBN 0-19-503681-6 \$49.95 *hc*

Magnetotail Physics. Proc. Conf., Baltimore, Md., October 1985. A. T. Y. Lui, ed. 433 pp. Johns Hopkins U. P., Baltimore, Md., 1987. ISBN 0-8018-3496-1 \$40.00 *hc*

Mercury: The Elusive Planet. *Smithsonian Library of the Solar System.* R. G. Strom. 197 pp. Smithsonian Institution P., Washington, D. C., 1987. ISBN 0-87474-892-5 \$19.95 *hc*

Mesozoic and Cenozoic Oceans. *Geodynamics Series* 15; *International Lithosphere Program* 131. K. J. Hsü, ed. 153 pp. Am. Geophys. Union, Washington, D. C., 1986. ISBN 0-87590-515-3 \$22.00 (\$15.40, AGU and GSA members) *hc.* *Compendium*

Meteorites and Their Parent Planets. H. Y. McSweeney. 237 pp. Cambridge U. P., New York, 1987. ISBN 0-521-32431-9 \$24.95 *hc.* *Monograph; lay readers*

Origin of the Moon. Proc. Conf., Kona, Hawaii, October 1984. W. K. Hartmann, R. J. Phillips, G. J. Taylor, eds. 781 pp. Lunar and Planetary Inst., Houston, 1986. ISBN 0-942862-03-1 \$25.00 *hc*

Terrane Accretion and Orogenic Belts. *Geodynamics Series* 19. E. V. Leitch, E. Scheibner, eds. 343 pp. Am. Geophys. Union, Washington, D. C., 1987. ISBN 0-87590-516-1 \$38.00 (\$26.60, AGU and GSA members) *hc.* *Compendium*

Time's Arrow, Time's Cycle: Myth and Metaphor in the Discovery of Geological Time. S. J. Gould. 222 pp. Harvard U. P., Cambridge, Mass., 1987. ISBN 0-674-89198-8 \$17.50 *hc.* *Historical monograph*

A View of the Sea: A Discussion Between a Chief Engineer and an Oceanographer about the Machinery of the Ocean Circulation. H. Stommel. 165 pp. Princeton U. P., Princeton, N. J., 1987. ISBN 0-691-08458-0 \$19.95 *hc.* *Lay readers; includes PC programs*

History and philosophy

Classic Papers in Combinatorics. I. Gessel, G.-C. Rota, eds. 481 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3364-2 \$60.00 *hc*

Cosmology, Physics, and Philosophy (Including a New Theory of Aesthetics). Second edition. B. Gal-Or. 522 pp. Springer-Verlag, New York, 1987. ISBN 0-387-96526-2 \$39.95 *hc.* *Monograph*

Engineer in Charge: A History of the Langley Aeronautical Laboratory, 1917-1958. The NASA History Series: NASA SP-4305. J.R. Hansen. 620 pp. US Govt. Printing Office, Washington, D.C., 1987. ISBN not stated; *pb.* *Monograph*; price not stated

Enigmas of Chance. M. Kac. 163 pp. U. of Calif. P. Berkeley, 1987. ISBN 0-520-05986-7 \$8.95 *pb.* *Autobiography*

The Greek Cosmologists, Vol. 1: The Formation of the Atomic Theory and Its Earliest Critics. D. Furley. 220 pp. Cambridge U.P., New York, 1987. ISBN 0-521-33328-8 \$34.50 *hc.* *Monograph*

H. A. Kramers: Between Tradition and Revolution. M. Dresden. 563 pp. Springer-Verlag, New York, 1987. ISBN 0-387-96282-4 \$59.95 *hc.* *Monograph*

Heroes in Space: From Gagarin to Challenger. P. Bond. 467 pp. Basil Blackwell, New York, 1987. ISBN 0-631-15349-7 \$24.95 *hc.* *Monograph*

An Introduction to the Historiography of Science. H. Kragh. 235 pp. Cambridge U.P., New York, 1987. ISBN 0-521-33360-1 \$32.50 *hc.* *Monograph*

Mathematics and Its Applications to Science and Natural Philosophy in the Middle Ages. E. Grant, J. E. Murdoch, eds. 337 pp. Cambridge U.P., New York, 1987. ISBN 0-521-32260-X \$59.50 *hc.* *Essays in honor of Marshall Clagett*

The Nature of Time. R. Flood, M. Lockwood, eds. 187 pp. Basil Blackwell, New York, 1986. ISBN 0-631-14807-8 \$19.95 *hc.* *Essays*

The Non-Euclidean Revolution. R. J. Trudeau. 269 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3311-1 \$39.00 *hc.* *Monograph*

The Real and the Imaginary: A New Approach to Physics. Proc. 13th Int. ICUS Conf., Washington, D.C., September 1984. J. Charon, ed. (translated from French). 206 pp. Paragon House, New York, 1987. ISBN 0-89226-027-0 \$24.95 *hc.*

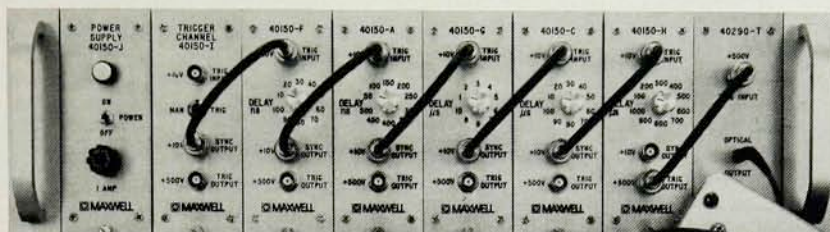
Riemann, Topology and Physics. M. Monastyrsky (translated by J. and V. King from Russian; R. O. Wells, ed.; introduction by F. Dyson). 158 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3262-X \$39.50 *hc.* *Monograph*

Schrödinger: Centenary Celebration of a Polymath. Proc. Conf., London, March 1987. C.W. Kilmister, ed. 253 pp. Cambridge U.P., New York, 1987. ISBN 0-521-34017-9 \$54.50 *hc.*

Science in Action: How to Follow Scientists and Engineers Through Society. B. Latour. 274 pp. Harvard U.P., Cambridge, Mass., 1987. ISBN 0-674-79290-4 \$25.00 *hc.* *Monograph*

Science, Philosophy and Human Behavior in the Soviet Union. L.R. Graham. 565 pp. Columbia U.P., New York, 1987. ISBN 0-231-06442-X \$45.00 *hc.* *Monograph*

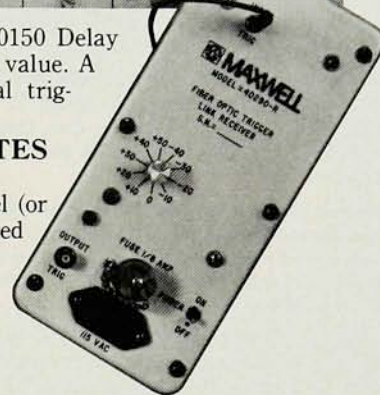
Don't hesitate. Delay.



The Maxwell 500 Volt Model 40150 Delay Generator has always been a solid value. A cost-effective solution to sequential triggering problems.

NOW MAXWELL GENERATES TREMENDOUS VALUE.

We haven't redesigned the wheel (or the 40150). But we have discovered some innovative ways to cut manufacturing costs. Savings we're passing on to you.



COMPARE.

Model	Old Price	New Price	Seven Plus*
40150-A, 40150-C, 40150-F, 40150-H	\$945.00	\$345.00	\$305.00
40150-G	\$945.00	\$482.00	\$430.00
40150-I	\$500.00	\$265.00	\$240.00
40150-J	\$680.00	\$482.00	\$430.00
40150-M	\$560.00	\$482.00	\$430.00

*Quantity discounts available on orders of seven or more units; may be applied to combination orders.

And to get these savings, you don't have to sacrifice Maxwell quality. Advantages such as: modular flexibility, no external shielding necessary, precision with fast rise time and repeatability, high-voltage output, and protected circuits.

Don't hesitate. There's never been a better time to delay. Call Gary Miscikowski today at (619) 279-5100.



MAXWELL®

MAXWELL LABORATORIES, INC.

8888 Balboa Ave., San Diego, CA 92123
Phone (619) 279-5100 • TWX: 910-335-2063

Representatives: UNITED KINGDOM, Alrad Instruments, (44) (635) 30345 Newbury. ITALY, dB-Electronic Instruments, s.r.l., 6469341/2/3-6468546. JAPAN, KBK Ltd., (81) (3) 244-3511. ISRAEL, E.I.M. International Electronics Ltd., (03) 774041-2-3-4. SWITZERLAND, GMPSA, 021/33 33 28. FRANCE, Optilas, (33) (6) 077, 40, 63. EASTERN EUROPE, Renata Braumann GMBH, 089/1571516. SWEDEN, Saven AB, TLX 854-12986. NORWAY, Saven AS, TLX 856-71840. WEST GERMANY/NETHERLANDS, Automation und Lasertechnik GMBH, 08151-77621.

Circle number 67 on Reader Service Card

Scientific Controversies: Case Studies in the Resolution and Closure of Disputes in Science and Technology. H. T. Engelhardt, A. L. Caplan, eds. 639 pp. Cambridge U. P., New York, 1987. ISBN 0-521-25565-1 \$59.50 *hc*; ISBN 0-521-27560-1 \$19.95 *pb*. *Compendium*

Scientific Genius and Creativity. *Readings from Scientific American.* O. Gingerich, ed. 110 pp. Freeman, New York, 1987. ISBN 0-7167-1858-8 \$12.95 *pb*. *Reprints*

Selected Papers on Algebra and Topology by Garrett Birkhoff. G.-C. Rota, J. S. Oliveira, eds. 608 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3114-3 \$78.00 *hc*. *Reprints*

Instrumentation and techniques

Content-Addressable Memories. Second edition. *Springer Series in Information Sciences 1.* T. Kohonen. 388 pp. Springer-Verlag, New York, 1987. ISBN 0-387-17625-X \$39.50 *pb*. *Monograph*

The Dosimetry of Ionizing Radiation, Vol. 2. K. R. Kase, B. E. Bjärnagard, F. H. Attix, ed. 374 pp. Academic, San Diego, Calif., 1987. ISBN 0-12-400402-4 \$65.00 *hc*. *Compendium*

Fundamental Research with Polarized Slow Neutrons. P. A. Krupchitsky (translated from Russian by V. I. Kisin). 138 pp. Springer-Verlag, New York, 1987. ISBN 0-387-16996-2 \$49.00 *hc*. *Monograph*

Liquid Crystal TV Displays: Principles and Applications of Liquid Crystal Displays. *Advances in Optoelectronics 2.* E. Kaneko. 312 pp. Reidel, Boston, 1987. ISBN 90-277-2362-1 \$99.00 *hc*. *Monograph*

Principles of Antennas: Wire and Aperture. T. S. M. Maclean. 360 pp. Cambridge U. P., New York, 1986. ISBN 0-521-30668-X \$79.50 *hc*. *Text*

Radionuclide Tracers: Their Detection and Measurement. M. F. L'Annunziata. 505 pp. Academic, San Diego, Calif., 1987. ISBN 0-12-436252-4 \$96.00 *hc*. *Monograph*

Review of Progress in Quantitative Non-destructive Evaluation, Vols. 6A and 6B. Proc. Mtg., La Jolla, Calif., August 1986. D. O. Thompson, D. E. Chimenti, eds. 1857 pp. Plenum, New York, 1987. ISBN 0-306-42584-X \$245.00 *hc*

Materials science

Intercalation in Layered Materials. *NATO ASI Series B: Physics 148.* Proc. Sch., Erice, Italy, July 1986. M. S. Dresselhaus, ed. 497 pp. Plenum, New York, 1986. ISBN 0-306-42483-5 \$89.50 *hc*

Kinetics of Interface Reactions. *Springer Series in Surface Sciences 8.* Proc. Wksp., Campobello Island, Canada, September 1986. M. Grunze, H. J. Kreuzer, eds. 299 pp. Springer-Verlag, New York, 1987. ISBN 0-387-17821-X \$55.00 *hc*

Non-Oxide Technical and Engineering Ceramics. Proc. Conf., Limerick, Ireland, July 1985. S. Hampshire, ed. 458 pp. Elsevier, New York, 1986. ISBN 1-85166-042-9 \$95.75 *hc*

Order in the Amorphous 'State' of Polymers. Proc. Symp., Midland, Mich., August 1985. S. E. Keinath, R. L. Miller, J. K. Rieke, eds. 478 pp. Plenum, New York, 1987. ISBN 0-306-42548-3 \$79.50 *hc*. *Festschrift for Raymond Boyer*

Thin Metal Films and Gas Chemisorption. *Studies in Surface Science and Catalysis 32.* P. Wissmann, ed. 538 pp. Elsevier, New York, 1987. ISBN 0-444-42800-3 \$161.00 *hc*. *Compendium*

Mathematical methods of physics

Autour de l'Approximation Semi-classique. *Progress in Mathematics 68.* D. Robert. 328 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3354-5 \$41.00 *hc*. *Monograph*

A Course in Density Estimation. *Progress in Probability and Statistics 14.* L. Devroye. 183 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3365-0 \$28.50 *hc*. *Monograph*

Differential Geometric Methods in Mathematical Physics. *Lecture Notes in Mathematics 1251.* Proc. Conf., Salamanca, Spain, June 1985. P. L. Garcia, A. Pérez-Rendón, eds. 300 pp. Springer-Verlag, New York, 1987. ISBN 0-387-17816-3 \$31.50 *pb*

Discrete Groups in Geometry and Analysis. *Progress in Mathematics 67.* Proc. Conf., New Haven, Conn., March 1986. R. Howe, ed. 210 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3301-4 \$27.00 *hc*. *Festschrift for G. D. Mostow*

Instabilities and Nonequilibrium Structures. *Mathematics and Its Applications 33.* Proc. Wksp., Valparaíso, Chile, December 1985. E. Tirapegui, D. Villarroel, eds. 337 pp. Reidel, Boston, 1987. ISBN 90-277-2420-2 \$69.50 *hc*

Lectures on Complex Approximation. D. Gaier (translated from German by R. McLaughlin). 196 pp. Birkhäuser, Boston, 1987. ISBN 0-8176-3147-X \$42.00 *hc*. *Monograph*

Manifolds and Mechanics. *Australian Mathematical Society Lecture Series 2.* A. Jones, A. Gray, R. Hutton. 164 pp. Cambridge U. P., New York, 1987. ISBN 0-521-33375-X \$39.50 *hc*; ISBN 0-521-33650-3 \$13.95 *pb*. *Monograph text*

Recent Advances in Hamiltonian Systems. Proc. Conf., L'Aquila, Italy, June 1986. G. F. Dell'Antonio, B. D'Onofrio, eds. 242 pp. World Scientific, Singapore (Teaneck, N. J.), 1987. ISBN 9971-50-246-1 \$34.00 *hc*

Science on Form. Proc. Symp., Tsukuba, Japan, November 1985. S. Ishizaka, ed. 655 pp. Reidel, Boston, 1987. ISBN 90-277-2390-7 \$129.00 *hc*

Solving Polynomial Systems Using Continuation for Engineering and Scientific Problems. A. Morgan. 546 pp. Prentice-Hall, Englewood Cliffs, N. J., 1987. ISBN 0-13-822313-0 \$49.95 *hc*. *Reference text with FORTRAN programs*

Stochastic Processes—Mathematics and Physics II. *Lecture Notes in Mathematics 1250.* Proc. Symp., Bielefeld, FRG, April 1985. S. Albeverio, P. Blanchard, L. Streit,

eds. 359 pp. Springer-Verlag, New York, 1987. ISBN 0-387-17797-3 \$36.20 *pb*

Topics in Soliton Theory and Exactly Solvable Nonlinear Equations. Proc. Conf., Oberwolfach, FRG, July 1986. M. Ablowitz, B. Fuchssteiner, M. Kruskal, eds. 342 pp. World Scientific, Singapore (Teaneck, N. J.), 1987. ISBN 9971-50-253-4 \$42.00 *hc*

Transient Waves in Layered Media. *Methods in Geochemistry and Geophysics 26.* M. Tygel, P. Hubral. 329 pp. Elsevier, New York, 1987. ISBN 0-444-42808-9 \$80.50 *hc*. *Monograph*

Nuclear physics

Advances in Nuclear Science and Technology, Vol. 18. J. Lewins, M. Becker, eds. 421 pp. Plenum, New York, 1986. ISBN 0-306-42289-1 \$79.50 *hc*. *Compendium*

Advances in Nuclear Science and Technology, Vol. 19. J. Lewins, M. Becker, eds. 489 pp. Plenum, New York, 1987. ISBN 0-306-42543-2 \$85.00 *hc*. *Compendium*

Essentials of Nuclear Chemistry. Second edition. H. J. Arnikaar. 343 pp. Wiley, New York, 1987. ISBN 0-470-20723-X \$24.95 *hc*. *Text*

Radiation Chemistry: Principles and Applications. Farhataziz, M. A. J. Rodgers, eds. 641 pp. VCH, New York, 1987. ISBN 0-89573-127-4 \$95.00 *hc*. *Compendium*

Serber Says: About Nuclear Physics. *World Scientific Lecture Notes in Physics 10.* R. Serber. 298 pp. World Scientific, Singapore (Teaneck, N. J.), 1987. ISBN 9971-50-158-9 \$46.00 *hc*; ISBN 9971-50-376-X \$24.00 *pb*

Symmetries and Semiclassical Features of Nuclear Dynamics. *Lecture Notes in Physics 279.* Proc. Sch., Poiana Brasov, Romania, September 1986. A. A. Raduta, ed. 465 pp. Springer-Verlag, New York, 1987. ISBN 0-387-17926-7 \$35.70 *hc*

Physical electronics

Advances in Local Area Networks. *Frontiers in Communications.* K. Kümmerle, J. O. Limb, F. A. Tobagi, eds. 604 pp. IEEE P., New York, 1987. ISBN 0-87942-217-3 \$56.50 (\$42.40, IEEE members) *hc*. *Compendium*

Defects and Properties of Semiconductors: Defect Engineering. *Advances in Solid State Technology 3.* Proc. Symp., Tokyo, May 1984. J. Chikawa, K. Sumino, K. Wada, eds. 261 pp. Reidel, Boston, 1987. ISBN 90-277-2352-4 \$94.00 *hc*

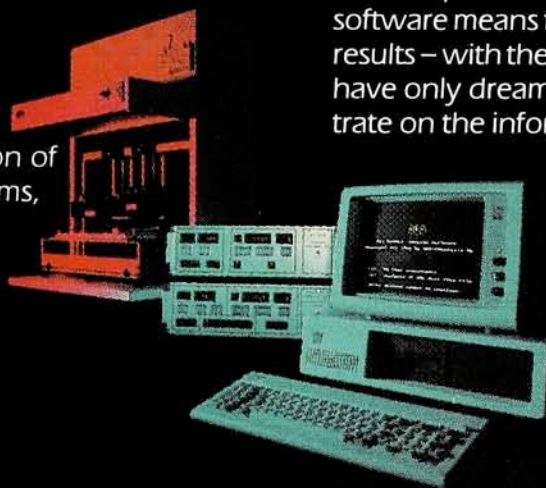
Electrodynamics of the Semiconductor Band Edge. *Springer Tracts in Modern Physics 110.* A. Stahl, I. Balslev. 215 pp. Springer-Verlag, New York, 1987. ISBN 0-387-16953-9 \$58.20 *hc*. *Monograph*

Optical Properties of Narrow-Gap Low-Dimensional Structures. *NATO ASI Series B: Physics 152.* Proc. Wksp., St. Andrews, UK, July 1986. C. M. Sotomayor Torres, J. C. Portal, J. C. Maan, R. A. Strad-

THE LANGMUIR-BLODGETT INSTRUMENT

If advanced molecular electronics is your field of interest, this is the Langmuir-Blodgett instrument for you. KSV offers state of the art thin film technology of tomorrow... today. The new KSV 2200 LB monolayer laboratory achieves the performance and reliability demanded by the fabrication of the most sophisticated LB-films.

The Automatic Film Collector system was developed to allow unsupervised deposition of ordered layers of LB-films, while consistent quality is guaranteed by the microprocessor-controlled Dynamic Film Control system.



The requisite ultra-clean atmosphere is created by the rugged laminar flow enclosure. To make things even better, you have direct access to the KSV 2200 LB system from your personal computer through a standard RS-232C serial interface. Convenient and rapid data acquisition and processing with KSV-software means flexibility and fast analysis of results – with the swiftness and accuracy you have only dreamed about. You can concentrate on the information, not the instrumentation.

Discover the state of the art thin film technology with KSV 2200 LB – the leader in Langmuir-Blodgett films.



KSV-Chemicals Oy, Valimotie 7, 00380 Helsinki, Finland
Tel: Intl. + 358 0 556 351, Telex: 123909 ksv sf,
Fax Intl. + 358 0 550 838



Your NMR work deserves our RF amplifiers.

Conservatively-rated power amplifiers, with the noise-blanking capability that pulsed NMR demands, have been a specialty of ours for well over a decade. Whether your needs for clean rf power are at the 200- to 500-watt level (as supplied by our Model 200L shown here) or up in the kilowatt range, we have the pulse power systems to ensure your peace of mind.

During pulse operation (at duty cycles up to 25%), the 200L can deliver up to 500 watts over a bandwidth of 1-200 MHz; yet when blanked with a +5V signal it reduces noise 30 dB in less than 5 microseconds. We know how important that noise-free environment is to the integrity of your results.

If you're upgrading an existing system or moving into high-power spectrometry for solid-material experiments, we suggest you work for a few moments with an AR amplifier. Enjoy the instant frequency response without need for tuning or bandswitching; the total immunity to any degree or phase of load mismatch; the assurance that nowhere within the bandwidth will the output power be less than the rated minimum. (When we say minimum, we mean *minimum*.)

Call us to discuss your present and expected applications. Or write for our NMR Application Note 0013 and the informative booklet "Your guide to broadband power amplifiers."



**AMPLIFIER
RESEARCH**

160 School House Road, Souderton, PA 18964-9990 USA
Phone 215-723-8181 • TWX 510-661-6094

ling, eds. 362 pp. Plenum, New York, 1987. ISBN 0-306-42566-1 \$62.50 *hc*

Semiconductor Statistics. J. S. Blakemore. 381 pp. Dover, Mineola, N. Y., 1987 [1962]. ISBN 0-486-65362-5 \$9.95 *pb*. *Monograph reprint*

VLSI Technology and Design. *Microelectronics and Signal Processing.* J. V. McCanny, J. C. White, eds. 375 pp. Academic, San Diego, Calif., 1987. ISBN 0-12-481840-4 \$59.00 *hc*. *Compendium*

Society and government

Civil Defense: A Choice of Disasters. J. Dowling, E. M. Harrell, eds. 231 pp. AIP, New York, 1987. ISBN 0-88318-512-1 \$25.00 (\$20.00, AIP members) *hc*. *Compendium*

Empty Promise: The Growing Case Against Star Wars. J. Tirman, ed. 238 pp. Beacon, Boston, 1986. ISBN 0-8070-0412-X \$19.95 *hc*. *Lay readers*

Environmental Consequences of Nuclear War, Vol. 1: Physical and Atmospheric Effects. *Scientific Committee on Problems of the Environment* 28. A. B. Pittock, T. P. Ackerman, P. J. Crutzen, M. C. MacCracken, C. S. Shapiro, R. P. Turco. 359 pp. Wiley, New York, 1986. ISBN 0-471-90918-1 \$64.95 *hc*. *Monograph*

Environmental Consequences of Nuclear War, Vol. 2: Ecological and Agricultural Effects. *Scientific Committee on Problems of the Environment* 28. M. A. Harwell, T. C. Hutchinson. 523 pp. Wiley, New York, 1985. ISBN 0-471-90898-3 \$81.95 *hc*. *Monograph*

From Deterrence to Defense: The Inside Story of Strategic Policy. M. Charlton, ed. 154 pp. Harvard U.P., Cambridge, Mass., 1987. ISBN 0-674-32347-5 \$8.95 *pb*. *Oral history*

Military Objectives in Soviet Foreign Policy. M. McGwire. 530 pp. Brookings Institution, Washington, D. C., 1987. ISBN 0-8157-5552-X \$39.95 *hc*; ISBN 0-8157-5551-1 \$18.95 *pb*. *Monograph*

Nuclear Weapons Databook, Vol. 2: US Nuclear Warhead Production. T. B. Cochran, W. M. Arkin, R. S. Norris, M. M. Hoenig. 223 pp. Ballinger, Cambridge, Mass., 1987. ISBN 0-88730-124-X \$39.95 *hc*; ISBN 0-88730-125-8 \$24.95 *pb*. *Reference*

Student texts and popularizations

Einstein's Legacy. *Scientific American Library* 16. J. Schwinger. 250 pp. Sci. Am. Books (Freeman), New York, 1986. ISBN 0-7167-5011-2 \$32.95 *hc*. *Lay readers*

Matrices for Engineers. A. D. Kraus. 310 pp. Hemisphere, New York, 1987. ISBN 0-89116-646-7 \$49.00 *hc*. *Introductory text*

Sun and Earth. *Scientific American Library* 15. H. Friedman. 251 pp. Sci. Am. Books (Freeman), New York, 1986. ISBN 0-7167-5012-0 \$32.95 *hc*. *Lay readers*

The Supercomputer Era. S. Karin, N. P. Smith. 313 pp. Harcourt Brace Jovanovich, New York, 1987. ISBN 0-15-186787-9 \$19.95 *hc*. *Lay readers* □

7816

Circle number 69 on Reader Service Card