known results, often without primary references.

The book can be recommended to graduate students who have learned something about angular momentum theory (and groups) and would like to see how this knowledge fits into a modern mathematical setting. (The monograph is a useful antidote to the oversimplified "physicist's texts" on Lie groups.) But the beginning student should look elsewhere; this is not an introductory textbook. North-Holland has done a fine job of the format and printing (there are commendably few errors), but the price is a bit steep.

L. C. BIEDENHARN Duke University

book notes

Jets of Hadrons

W. Hofmann

210 pp. Springer-Verlag, New York, 1981. \$32.50

Jets of Hadrons is a thorough, wellwritten article that treats a subject currently of great interest. Werner Hofmann reviews the properties of hadronic final states in e+e- annihilation, lepton-hadron and hadron-hadron scattering in the regime where a parton (QCD-quantum chromodynamic) description is appropriate. He also covers the more speculative approaches to low transverse momentum processes. Although concentrating on final state properties, Hofmann also discusses the general QCD description of these reactions. The treatment of e⁺e⁻ annihilation is deliberately brief in deference to Bjorn Wiik and Gunter Wolf's well-known article on this in the same Springer series. Hofmann takes an experimental point of view but within this context seems to present fairly the competing models, theories and data.

Hofmann's tract is in fact very similar in style and content to many reviews one will find in high-energy physics conference reports. This tract is more comprehensive but even by now does suffer a little from age in this rapidly moving field. I suspect that only high-energy physicists working directly in the areas covered will be interested in this book and even then most will be content to have it available in their library.

GEOFFREY C. FOX California Institute of Technology

new books

Astronomy, Cosmology and Space Physics

Compendium in Astronomy. A Volume Dedicated to Professor John Xanthakis on the Occasion of Completing Twentyfive Years of Scientific Activities as Fellow of Athens. E. Mariolopoulos, P. Theocaris, L. Mavridis, eds. 464 pp. Reidel (US dist. Kluwer, Hingham, Mass.), 1982. \$49.50. compendium

Extragalactic Astronomy. J. Sérsic. 245 pp. Reidel (US dist. Kluwer, Hingham, Mass.), 1982. \$49.50. intermediate text

The History of Modern Astronomy and Astrophysics: A Selected Annotated Bibliography. D. DeVorkin. 434 pp. Garland, New York, 1982. \$65.00

Amateur Astronomer's Fourth Edition. J. Sidgwick. 568 pp. Enslow, Hillside, N.J., 1982. \$7.95

Astronomical Photometry. A. Henden, R. Kaitchuck, 392 pp. Van Nostrand Reinhold, New York, 1982. \$29.95. reference

Astronomy and Astrophysics for the 1980's Vol. 1. Report of the Astronomy Survey Committee. National Academy Press, Washington, DC, 1982. \$14.75

High-Precision Earth Rotation and Earth-Moon Dynamics. Lunar Distances



Circle number 54 on Reader Service Card

New & Noteworthy

ELECTROMAGNETISM

Paths to Research

edited by Doris Teplitz, University of Maryland

Introduces the graduate-level student to important specialties in research physics, presenting applications to astrophysics, biophysics, low-temperature physics, plasma physics, and other areas and treating such problems in the foundations of electromagnetic theory as classical electron theory and magnetic monopoles. Annotated bibliographies, problems, glossaries, and an appendix are included, making this book an ideal text.

approx. 450 pp., illus., 1982

\$55.00

text adoption price on orders of six or more copies: \$32.50

AN INTRODUCTION TO THE PHYSICS OF INTENSE CHARGED PARTICLE BEAMS

by R. B. Miller, Sandia Laboratories, Albuquerque, New Mexico

A survey of various phenomena associated with intense charged particle beams offering a consistent, logical treatment of basic subject areas ranging from beam generation and transport processes to applications. Several areas of ongoing research are covered, including powerful sources of coherent radiation, collective ion acceleration, and particle beam fusion. A good textbook for the first-year graduate student or beginning researcher and a valuable source of information for the advanced worker seeking a useful reference and overview of the field.

362 pp., illus., 1982

\$45.00

text adoption price on orders of six or more copies: \$29.50

INTRODUCTION TO THE THEORY OF LASER-ATOM INTERACTIONS

by Marvin H. Mittleman, The City College of the City University of New York

Assuming only a knowledge of elementary quantum mechanics, this volume covers the background material necessary for understanding the theory of laser-atom interactions, and includes a wide range of topics in atomic physics as modified by lasers with particular emphasis upon scattering and reactions. An ideal textbook for the graduate student as well as a good reference for the professional. A volume in Physics of Atoms and Molecules.

195 pp. + index, illus., 1982 \$35.00

TUNNELING SPECTROSCOPY Capabilities, Applications, and New Techniques

edited by **Paul K. Hansma**, *University of California*, Santa Barbara

These profusely illustrated articles provide a coherent, indepth look at the versatile new technique of tunneling spectroscopy for workers in catalysis, corrosion, adhesion, surface science, vibrational spectroscopy, quantitative analysis, and other fields where it will find future application. The volume unites information previously published only in journals and includes an extensive collection of tunneling spectra.

approx. 500 pp., illus., 1982

\$65.00



PROGRESS IN MEDICAL RADIATION PHYSICS

Volume 1

edited by Colin G. Orton, Wayne State University
School of Medicine

Providing a stimulus for investigation in various areas of medical radiation physics, this volume covers topics including recent progress in neutron dosimetry, with special reference to the rapidly growing interest in the use of neutron beams in the treatment of cancer; tissue inhomogeneities in photon-beam treatment planning in radiotherapy; anthropomorphic phantom materials; and a detailed survey of optical methods for storing radiographs without loss of diagnostic information.

404 pp., illus., 1982

\$45.00

FOURIER, HADAMARD, AND HILBERT TRANSFORMS IN CHEMISTRY

edited by Alan G. Marshall, Ohio State University

A pioneering work written by advanced researchers, this volume acquaints practicing chemists with the basis, advantages, and applications of Fourier, Hadamard, and Hilbert transforms in chemistry.

574 pp., illus., 1982

\$65.00

MICROWAVE PROPAGATION IN FERRIMAGNETICS

by M. S. Sodha and N. S. Srivastava, Indian Institute of Technology, New Delhi

A coherent account of the propagation of electromagnetic and magnetoelastic microwaves in biased ferrites. Discusses recent developments in theory and operation, including both magnetostatic and magnetoelastic waves in layered planar structures and microwave propagation in ferrite strip lines and microstrips. For graduate students, practicing electrical engineers, and applied physicists.

428 pp., illus., 1981

\$49.50

SCANNING ELECTRON MICROSCOPY AND X-RAY MICROANALYSIS

A Text for Biologists, Materials Scientists, and Geologists

by Joseph I. Goldstein, Lehigh University,
Dale E. Newbury, National Bureau of Standards,
Patrick Echlin, University of Cambridge, England,
David C. Joy, Bell Laboratories, Charles Fiori,
National Institutes of Health, and Eric Lifshin,
General Electric Corporation

Designed for the beginning student in scanning electron microscopy and X-ray microanalysis as well as the worker who utilizes SEM techniques, the present volume emphasizes such areas as the biological specimen, qualitative and quantitative X-ray microanalysis, aspects of sample coating, and the data base of useful parameters for SEM and X-ray microanalysis calculations. Other topics covered include electron optics, electron specimen interactions, image formation and interpretation. Case studies illustrating application of SEM to particular problems are also provided.

688 pp., illus., 1981

\$29.50

PLENUM PUBLISHING CORPORATION 233 Spring Street, New York, N.Y. 10013 and Related Observations. Proceedings of the 63rd Colloquium of the International Astronomical Union, May 1981. O. Calame. ed. 354 pp. Reidel (US dist. Kluwer, Hingham, Mass.), 1982. \$125.00

Atomic, Molecular and Chemical Physics

Advances in Atomic and Molecular Physics. Vol 17. B. Bederson, D. Bates, eds. 433 pp. Academic, New York, 1982. \$58.00. compendium

Dynamics of Gas-Surface Interaction. Proceedings of the International School, Erice, 1981. G. Benedek, U. Valbusa, eds. 282 pp. Springer, New York, 1982. \$32.00

Resonances in Heavy Ion Reactions. Proceedings of the Symposium, Physikzentrum, October 1981. K. Eberhard, ed. 448 pp. Springer, New York, 1982. \$28.00

Particles, Nuclei and High-Energy Physics

Quarks and Nuclear Forces. Lectures from Kernforschungszentrum Karlsruhe Summer School, 1981. D. Fries, B. Zeitnitz, eds. 223 pp. Springer, New York, 1982. \$35.00

Solid-State Physics and Electronics

Elastic Models of Crystal Defects. C. Teodosiu. 336 pp. Springer, New York, 1982. \$25.80. text

High-Temperature Superconductivity. V. Ginzburg, D. Kirzhnits, eds. 364 pp. Consultants Bureau, New York, 1982. \$55.00.

Electron Energy Loss Spectroscopy and Surface Vibrations, H. Ibach, D. Mills. 366 pp. Academic, New York, 1982. \$49.00. text

Computational Crystallography. Papers presented at the International Summer School, Ottawa, Canada, August 1981. D. Sayre, ed. 539 pp. Oxford, New York, 1982. \$34.50

Semiconductor Devices for Optical Communication. H. Kressel, ed. 309 pp. Springer, New York, 1982. \$24.00. compendium

Instrumentation and Techniques

Electronics Microstructure Science. Vol. 3. N. Einspruch, ed. 453 pp. Academic, New York, 1982. \$56.00. compendium

Infrared and Millimeter Waves. Vol. 6. Systems and Components. K. Button, ed. 416 pp. Academic, New York, 1982. \$59.00. compendium

Handbook of Measurement Science. Vol. 1. Theoretical Fundamentals. P. Sydenham, ed. 654 pp. Wiley, New York, 1982. \$65.00. reference

History, Philosophy, Society & Government

Common Security: A Blueprint for Survival. The Independent Commission on Disarmament and Security Issues. O. Palme, chairman. 202 pp. Simon and Schuster, New York, 1982, \$5.95

Einstein and the Generations of Science. Second Edition. L. Feuer, ed. 374 pp. Transaction Books, New Brunswick, N. J., 1982.

Outcome Uncertain: Science and the Political Process. M. Ames. Avon, New York, 1978. \$3.50

Charles Babbage: Pioneer of the Computer. A. Hyman. 287 pp. Princeton U. P., Princeton, N.J., 1982. \$25.00

Albert Einstein: Historical and Cultural Perspectives. The Centennial Symposium in Jerusalem. G. Holton, Y. Elkana, eds. 439 pp. Princeton U. P., Princeton, N.J., 1982. \$35.00

The Neglected Facts of Science. D. Larson. 131 pp. North Pacific, Portland, 1982. \$9.00. speculation

Quantum Theory and the Schism in Physics. K. R. Popper, 229 pp. Rowman and Littlefield, Totowa, N.J., 1982. \$27.50

Nuclear Culture: Living and Working in the World's Largest Atomic Complex. P.



PRA arc lamp systems emit up to six times

more usable light than conventional systems.

It's all in our elliptical mirror design (see diagram).

The elliptical mirror simply gathers more light. And focuses it. Our lamp housing has no lenses and, therefore, no reflective losses.

With six times more light output from our housings, our arc lamp



systems deliver the lowest cost per watt of any system on the market.

And it's not only the housing. With our arc lamp system, there's "no weak link in the chain". For example,

our systems are remarkably stable. Because the housings are water cooled, there's no beam jitter from fan vibration. And for even more stability, you can order an optional optical feedback system that keeps ripple and drift as low as 0.1% and 2% respectively.

Our systems offer the most sophisticated power supplies and ignitors available. And output modulation—your choice of sine wave, ramp or square wave. All useful for signal processing.

For more about our arc lamp systems, call or write for our free brochure. PRA, 100 Tulsa Road, Oak Ridge, Tennessee 37830, (615) 483-3433.

BBT INSTRUMENTER, Ballerup, Denmark, 02/00 02 08; INSTRUMAT S.A.R.L., Orsay, France (6)928 27 34; AMKO GmbH. Tornesch, Germany, 0 41 22-51061; THE G.G. FORUM, Thessaloniki, Greece, 031 527,039; ISRAMEX, Tel Aviv, 248213-4-5, DAINI SEIKOSHA, Tokyo. (03)682-1111; ELCHEM, Den Haag, Netherlands, (070)837675; ROFIN, Egham, UK, (07843)7541/4.

Circle number 56 on Reader Service Card

Presenting two new books on THERMONUCLEAR FUSION from harwood academic publishers...

Both publications are edited by G. Casini and are based on lectures given at the Commission of the European Communities' Joint Research Center in Ispra, Italy. They are part of harwood's new series ISPRA COURSES ON NUCLEAR ENGINEERING AND TECHNOLOGY.

ISSN: 0275-7575

ENGINEERING ASPECTS OF THERMONUCLEAR FUSION TECHNOLOGY

This volume comprises lectures on the engineering problems and technical requirements related to the development of fusion energy. Topics covered include: a review of the existing approaches to fusion power reactors as well as the engineering problems related to electromagnetic systems, vacuum systems, heating devices, material development, power recovery (blanket) and conversion systems, fuel cycle, systems integration and remote handling, and electrical power supply. Particular attention is devoted to the Tokamak machines, both those presently under construction as well as those still being designed.

CONTENTS: Preface; Basic Principles of Fusion Power; The Tokamak Concept and its Physics; Magnetic Field Evaluations; Electromagnetic Systems; Additional Heating at Reactor Level; The Large Tokamaks; The JET Projects; Power Supply Requirements for Large Toroidal Fusion Experiments and Future Fusion Reactors; First Wall and Blanket Problems in Fusion Power Reactors; Technology of Superconducting Magnets for Magnetic Confinement Systems in Thermonuclear Fusion; The Fuel Cycle of Fusion Reactors; Remote Operations and Fusion Reactor Design; Systems Integration; The NET Experimental Reactor; A Review of Some Important Engineering Problems of Mirror Fusion Reactors; A Review of Some Impor-

tant Inertial Confinement Fusion Reactor Concepts; Safety and Environmental Aspects.

1982 642 pages Dfl 250/\$96.50 ISBN: 3-7186-0091-0

PLASMA PHYSICS FOR THERMONUCLEAR FUSION REACTORS

This book provides scientists and engineers with basic information on plasma physics and other aspects of fusion. The emphasis is on the plasma configuration of the so-called Tokamak machines. Topics covered include plasma equilibrium and stability conditions, transport and scaling laws in a toroidal configuration, modes of plasma heating and plasma impurity control.

CONTENTS: Preface; Introduction to Fusion Plasma Physics; Features and Comparison of Magnetic and Inertial Confinement Reactors; Plasma Equilibrium in a Tokamak; Stability of a Tokamak Discharge; Transport and Scaling Laws in a Magnetized Plasma; Plasma Heating in Toroidal Magnetic Confinement Systems; Plasma Wall Interaction in Tokamaks; Divertor Problems; Main Features of Cold Blanket Systems; Control of Burn-up Phase; Turbulent Plasma Behavior in Toroidal Systems; Plasma Transport Calculations for Fusion Reactors.

1982 496 pages Dfl 195/\$74.50 ISBN: 3-7186-0091-9

harwood academic publishers c/o STBS One Park Avenue New York, N.Y. 10016

Books in a series may be ordered on a continuation-order basis. Please contact publisher for details. Prices apply in North America and Western Europe only and may be subject to change.

Circle number 57 on Reader Service Card

NEW ORLEANS PEB 28-MAR 2

JOINT IEEE-OSA TOPICAL MEETING ON

OPTICAL FIBER COMMUNICATION



SPONSORED BY

Optical Society of America and IEEE Quantum Electronics and Applications Society

For more information:

OPTICAL SOCIETY OF AMERICA

1816 Jefferson Place, N.W. Washington, D.C. 20036 (202) 223-8130 This meeting covers the rapidly expanding field of optical fiber communication and fiber-related technologies. OFC '83 will

provide an interdisciplinary forum for state-of-theart information exchange in the areas of basic zeresearch, development and characterization of fiber, cable, active and passive components, system engineering and the

fiber optic technology.

TECHNICAL EXHIBITION of products and services used in field will be held in conjunction with the meeting. For information: Mary Dean VanLandingham, Adv.—Exh. Mgr., (301) 262-6921.

Loeb. 255 pp. Coward, McCann & Geoghegan, New York, 1982. \$13.95

The Architecture of Matter. S. Toulmin, J. Goodfield. 398 pp. U. of Chicago P., Chicago, 1982. \$10.95. history of scientific ideas

The Secret That Exploded. H. Morland. 288 pp. Random House, New York, 1981. \$14.95. reporter's account of H-bomb story

The Open Universe. K. R. Popper. 185 pp. Rowman and Littlefield, Totowa, N.J., 1982. \$23.50.

Theory and Mathematical Physics

An Introduction to Error Analysis: The Study of Uncertainties in Physical Measurements. J. Taylor. 270 pp. University Science Books, Mill Valley, Cal., 1982. \$15.00 cloth, \$9.50 paper. introductory text

Spacetime and Geometry. R. Matzner, L. Shepley, eds., 189 pp. U. of Texas P., Austin, 1982. \$37.50. essays

Spatial Kinematic Chains: Analysis-Synthesis-Optimization. J. Angeles. 369 pp. Springer, New York, 1982. \$36.00

Integral Equation Method in Transonic Flow. P. Niyogi. 189 pp. Springer, New York, 1982. \$11.80. monograph

Scattering Theory of Waves and Particles. Second Edition. R. Newton. 743 pp. Springer, New York, 1982. \$48.00. second-level text

Mechanics of Solids with Applications to Thin Bodies. G. Wempner. 633 pp. Sijthoff & Noordhoff, Rockville, Md., 1982. \$79.00. intermediate text

Catastrophe: Theory and Applications. D. Sinha, ed. 158 pp. Wiley, New York, 1982. \$15.95. monograph

Macroscopic Properties of Disordered Media. Proceedings of a Conference, Courant Institute, June 1981. R. Burridge, S. Childress, G. Papanicolaou, eds. 307 pp. Springer, New York, 1982. \$80.00

Fluctuations & Non-linear Wave Interactions in Plasmas. A. G. Sitenko. 262 pp. Pergamon, New York, 1982. \$60.00. monograph

Real-Space Normalization. T. W. Burkhardt, J. M. J. van Leeuwen, eds. 214 pp. Springer, New York, 1982. \$27.00. compendium

The Finite Element Method in Thin Shell Theory: Application to Arch Dam Simulations, M. Bernadou, J. Boisserie. 199 pp. Birkhauser, Boston, 1982. \$15.00

Materials Science and Condensed Matter

Los Alamos Shock Profile Data. C. Morris, ed. 488 pp. U. of California P., Berkeley, 1982. \$35.00

Metal Vapours in Flames. C. Alkemade, T. Hollander, W. Snelleman, P. Zeegers, 1033 pp. Pergamon, New York, 1982. \$95.00. reference

Elastic Models of Crystal Defects. C. Teodosiu. 336 pp. Springer, New York, 1982. \$25.80. text

INCOMPARABLE QUALITY

The new Imacon 500 high speed camera system

The very name Hadland stands for unequalled quality in high speed camera systems. Once again this is proven with the Imacon 500. This advanced system, based on years of experience, also offers the utmost in flexibility because of its modular design and extensive selection of components.

Why it's advanced. The 500 incorporates many improvements, but the key one is its new image tube. It features a UV transmitting window giving response to 220 nm and 1:1 cathode to screen magnification for high dynamic range, and time resolution-less than 1 picosecond.

Why it's so flexible. The 500 system offers a wide range of components which can be added to the basic system at any time to upgrade capability, including 5 different chassis, 4 different camera backs for recording the fiber optic output of the tube, a streak analyzer and more. Why buy 5 cameras when one basic system can be adapted to your changing needs?

Imacon 500 systems are now in production. Contact Marco Scientific for full details and remember, there really is no substitute for experience.



1031 H East Duane Ave. Sunnyvale, CA 94086 (408) 739-9418



PLASMA/FUSION SHOW-BOOTH 44 Circle number 58 on Reader Service Card



Exciting new capabilities can blossom in your lab—wher you automate it with the DAISI family of data acquisition peripherals for your Apple Computer.

DAISI interfaces, from Interactive Structures, turn your economical Apple into a personal electronic lab assistant. DAISI products are designed to read instruments and sensors, control temperature and pressure... with reliability and precision. Here's a rundown on some DAISI interfaces

Al13, 12-Bit Analog Input System-\$550

■ 16 input channels ■ 20 microseconds conversion time.

AIO2, 8-Bit Analog Input System—\$299

■ 16 input channels ■ 70 microseconds conversion time

AO03, 8-Bit Analog Output System-\$195-\$437

■ up to 8 independent channels ■ range and offset adjustable

DI09, Digital Interface with Timers-\$330

■ timing and interrupt capability ■ direct connection to BCD digits, switches, relays.

Don't settle for garden variety equipment for your laboratory applications. Get the best—at a great price. Pick a DAISII



Call us for the DAISI dealer near you.

Interactive Structures Inc. 146 Montgomery Ave. Bala Cynwyd, PA 19004 (215) 667-1713 All DAISI interfaces come complete with cable, instructional diskette and comprehensive manual.

Circle number 59 on Reader Service Card

Nonmetallic Materials and Composites at Low Temperatures. Proceedings of the Second ICMC Symposium, Geneva, 1980. G. Hartwig, D. Evans, eds. 399 pp. Plenum, New York, 1982. \$49.50

Metastable Materials Formation by Ion Implantation. Proceedings of the Materials Research Society Annual Meeting, Boston, 1981. S. Picraux, W. Choyke, eds. 446 pp. Oxford, New York, 1982, \$70.00

Geometrical and Structural Crystallography. J. Smith. 450 pp. Wiley, New York, 1982. \$27.95. elementary text

Treatise on Materials Science and Technology. Vol. 22. Glass. M. Tomozawa, R. Doremus, eds. 320 pp. Academic, New York, 1982. \$48.00. compendium

Chemistry and Physics of Solid Surfaces. IV. R. Vanselow, R. Howe, eds. 496 pp. Springer, New York, 1982. \$44.00. compendium

Energy and Environment

Proceedings of the Eighth Symposium on Thermophysical Properties. Vol. II. Thermophysical Properties of Solids and of Selected Fluids for Energy Technology. J. Sengers, ed. 445 pp. American Society of Mechanical Engineers, New York, 1982. \$52.00

Electrochemical, Electrical, and Magnetic Storage of Energy. W. Hassenzahl, ed. 350 pp. Hutchinson Ross, Stroudsburg, Pa., 1981. \$50.00. introduction

Engineering Aspects of Thermonuclear Fusion Reactors. Lectures from a Course, Joint Research Center, Ispra, 1980. G. Casini, ed. 639 pp. Harwood, New York, 1982. \$97.00

Management of Plutonium Contaminated Waste. J. Grover, ed. 186 pp. Harwood Academic, New York, 1982. \$30.00. report for the Commission of the European Communities

Finance and Utilization of Solar Energy. Proceedings of a Conference, Santa Cruz, October 1981. N. Kapany, ed. 130 pp. CEID, Santa Cruz, Cal., 1982. \$10.00

Eutrophication of Waters: Monitoring, Assessment and Control. 153 pp. Organization for Economic Co-operation and Development, Paris, 1982. no price stated

Energy Demand: Facts and Trends: A Comparative Analysis of Industralized Countries. B. Chateau, B. Lapillonne. 280 pp. Springer, New York, 1982. \$39.80

Safety Problems Related to Sodium Handling in Liquid Metal Fast Breeder Reactors and Large Test Facilities. Lectures from a Course, Joint Research Center, Ispra, 1980. H. Kottowski, ed. 251 pp. Harwood, New York, 1982. \$38.00

Biological and Medical Physics

Dosimetry Workbook. P. Kartha, P. Thompson. 194 pp. Year Book Medical, Chicago, 1982. no price stated. introductory text

Optics in Biomedical Sciences. Proceedings of the International Conference, Graz, 1981. G. Bally, P. Greguss, eds. 274 pp. Springer, New York, 1982. \$37.00

Optoelectronics in Medicine. Proceedings of the Fifth International Congress Laser 81. W. Waidelich, ed. 239 pp. Springer, New York, 1982. \$27.60

Materials and Apparatus in Quantum Radiophysics. Proceedings (Trudy) of the P. N. Lebedev Physics Institute. Vol. 98. N. Basov, ed. 162 pp. Consultants Bureau, New York, 1982

The Physicochemical Factors of Biological Evolution. S. Shnol. 280 pp. Academic, New York, 1981. \$83.00

Receptive Mechanisms of Sound in the Ear. Y. Katsuki. 155 pp. Cambridge U.P., New York, 1982. \$39.50. text

NMR Imaging in Biomedicine. Supplement 2. Advances in Magnetic Resonance. P. Mansfield, P. Morris. 354 pp. Academic, New York, 1982. \$49.50. text

Radiological Imaging: The Theory of Image Formation, Detection, and Processing. Vol. 2. H. Barrett, W. Swindell. 693 pp. Academic, New York, 1981. \$55.00. advanced text

Interventional Radiology. R. Wilkins, M. Viamonte, eds. 480 pp. Blackwell, Boston, 1982. \$59.95. text

Biological Events Probed by Ultrafast Laser Spectroscopy. R. Alfano, ed. 443 pp. Academic, New York, 1982. \$59.00. compendium

Optics and Acoustics

Optoelectronics in Engineering. Proceedings of the 5th International Congress, Laser 81. W. Waidelich, ed. 580 pp. Springer, New York, 1982. \$40.00

Thermodynamics and Statistical Physics

Entropy Minimax Source Book. Vol. IV. Applications. R. Christensen, ed. 787 pp. Entropy, Lincoln, Mass., 1981. \$59.50

Introduction to Thermodynamics: Classical and Statistical. Second Edition. R. Sonntag, G. Van Wylen. 810 pp. Wiley, New York, 1982. \$34.95. text

Geophysics and Planetary Science

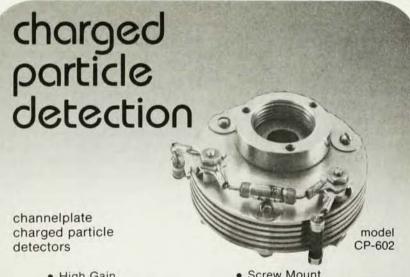
The Comparative Study of the Planets. Proceedings of the NATO Advanced Study Institute, Vulcano, September 1981. A. Coradini, M. Fulchignoni, eds. 516 pp. Reidel (US dist. Kluwer, Hingham, Mass.), 1982. \$59.50

Miscellaneous

Directory of Publishing Sources: The Researcher's Guide to Journals in Engineering and Technology. S. Balachandran. 343 pp. Wiley, New York, 1982. \$27.50.



Circle number 60 on Reader Service Card



- · High Gain
- High Saturation Levels
- Off Center Entrance Aperture
- Screw Mount
- Divider Network Supplied
- Particle Counting or Current Mode

Versatile electron or ion detectors for use in Atomic and Molecular Physics, Photoelectron Spectroscopy, Surface Analysis, Beam and Plasma Diagnosis, and Chemical Physics.

OAK RIDGE, TENNESSEE 37830 (615)483-7690 P.O. BOX 199

Circle number 61 on Reader Service Card