siderable detail, including the S-Matrix, coupled channels, and the K-Matrix. After developing the formalism, the authors show results found for the pion-nucleon and K-nucleon systems. They give only a brief (and rather mathematical) introduction to particle-exchange processes and finish with a brief description of the connection between low and high energies via dispersion relations.

While the classification scheme of SU(3) and the analysis of formation experiments are well covered, other topics, such as the discovery and analysis of meson resonances, are ignored. As stated in the introduction, the plan of the course "is highly subjective and incomplete, reflecting only the inclinations of the instructor at the present time." I expect that other instructors will have somewhat different inclinations and would not use this book alone. It is clearly written and will serve as a good text for those topics covered. The book should also be useful as a quick review and handy reference for workers in the field.

> ROBERT E. DIEBOLD Argonne National Laboratory Argonne, Illinois

new books

Elementary Particles and Fields

Recent Advances in Particle Physics. (Annals of the NY Academy of Sciences, Vol. 229. F. Cooper, ed. 265 pp. NY Academy of Sciences, New York, 1974. \$26.00

Nuclei, Nuclear Physics

NBS Reactor: Summary of Activities July 1972 to June 1973. R. S. Carter. 125 pp. US Dept. of Commerce, Washington, D. C., 1974. (Available from the US Government Printing Office, Washington, D. C. 20402 for \$1.55)

Nuclear Structure Study With Neutrons. (Conf. Proc., Budapest, 31 July–5 August 1972). J. Erö, J. Szücs, eds. 514 pp. Plenum, New York, 1974. \$27.50

Atoms and Molecules

Internal Rotation in Molecules. W. J. Orville-Thomas, ed. 606 pp. Wiley, New York, 1974. \$39.95

Chemical Physics

The Interpretation and Use of Rate Data: The Rate Concept. S. W. Churchill. 510 pp. McGraw-Hill, New York, 1974. \$13.95

Microwave Spectroscopy of Free Radicals. A. Carrington. 264 pp. Academic, New York, 1974. \$12.50

NMR: Basic Principles and Progress Vol. 8. P. Diehl, E. Fluck, R. Kosfeld, eds. 127 pp. Springer-Verlag, New York, 1974. \$23.80



A CHROMATIX TUNABLE LASER FORUNDER \$15K

Here's some good news for those who have been waiting for a price breakthrough in tunable lasers. It's the CMX-4, a new dye laser from Chromatix for under \$15K with all the quality and performance that you've always demanded — and received — from Chromatix. The CMX-4 is easy to operate, reliable, and ready for demonstration now. Priced to fit the budget of a wide range of investigators, the CMX-4 ushers in a new era of tunable laser applications. The basic version tunes the visible and an intracavity doubling accessory extends the range into the ultraviolet.

The CMX-4 is a tunable flash-lamp-pumped laser that sets new standards for lamp and dye life by means of several innovative design solutions. It is human engineered for simplicity of setup and operation. It's versatile too — for example, space has been provided for intracavity experiments. Also, several accessories such as the tunable UV and narrow bandwidth options, were included in the overall design program for the CMX-4. Check the many key features called out above.

If you'd like to know more about the new CMX-4, give us a call and we'll set up a demonstration in your area. Complete specifications and pricing are also available for the asking. Call or write today.



Price shown is for U.S. and Canada. 1145 Terra Bella Avenue Mountain View, CA 94303 (415) 969-1070 Telex: 910-379-6440

6903 Neckargemünd/ Dilsberg Unterestrasse 45A West Germany

New in Physics

PARTICLE PHYSICS

edited by MLADEN MARTINIS, SILVIO PALLUA and NIKOLA ZOVKO, Institute 'Rudjer Boskovic' and University of Zagreb, Yugoslavia.

1974 378 pages US\$ 25.00/Dfl.65.00

This volume contains the Proceedings of the Adriatic Summer Meeting on Particle Physics, Rovinj, Yugoslavia, September 23–October 5, 1973.

This series of lectures by the world's outstanding particle physicists examines recent, exciting developments in the field and some of the main (and still open) topics. These include the classical problem of determining scattering amplitude from measured cross-sections, rising cross-sections and implications, dual strings, lepton-hadron interactions, gauge theories, asymptotic freedom, phenomenology of unified models.

The lecturers are.

G. Furlan (Trieste); R. Gatto (Rome); H. Grosse (Vienna); G. 't Hooft (CERN); M. Jacob (CERN); J. Kuti (Budapest); H. Lehmann (Hamburg); H. Leutwyler (Bern); A. Martin (CERN); M. Martinis (Zagreb); C. Mencuccini (Rome); V. A. Meshcheryakov (Dubna); H. B. Nielsen (Copenhagen); H. Pietschmann (Vienna); G. Pócsik (Budapest); H. Steiner (Berkeley).

PROGRESS IN OPTICS, Volume XII

edited by H. WOLF, University of Rochester, New York.

1974 374 pages US\$46.20/Dfl.120.00

CONTENTS:

Self-focusing, self-trapping, and self-phase-modulation of laser beams (O. Svelto). Self induced transparency (R. E. Slusher). Modulation techniques in spectrometry (M. Harwit and J. A. Decker). Interaction of light with monomolecular dye layers (K. H. Drexhage). The phase transition concept and coherence in atomic emission (R. Graham). Beam-foil spectroscopy (S. Bashkin). Author index. Subject index.

CASE STUDIES IN ATOMIC PHYSICS, Volume 3

edited by E. W. McDANIEL and M. R. C. McDOWELL 1974 444 pages US\$50.00/Dfl.130.00

CONTENTS:

Detailed Balancing in the Time-Dependent Impact Parameter Method (E. Gerjuoy, University of Pittsburgh). Mechanisms of Electron Production in Ion-Atom Collisions (M. E. Rudd and J. H. Macek, University of Nebraska). The Production of Inner-Shell Vacancies in Heavy Ion-Atom Collisions (Q. C. Kessel, University of Connecticut and B. Fastrup, University of Aarhus). Hyperfine and Zeeman Studies of Metastable Atomic States by Atomic-Beam Magnetic-Resonance (W. J. Childs, Argonne National Laboratory). Coupled Integral-Equation Approach to Nonrelativistic Three-Body Systems with Applications to Atomic Problems (J. C. Y. Chen, University of California, La Jolla).

STATISTICAL MECHANICS

by R. KUBO, University of Tokyo, Japan, in cooperation with HIROSHI ICHIMURA.

1974, 3rd repr. 438 pages US\$ 26.90/ Dfl.70.00

'The great wealth of statistical mechanics is clearly displayed...'

Proc. Physical Soc.

"...a significant contribution to students of statistical mechanics..."

Physics Today

'As one would expect from the authors, the volume is of a very high standard and should be extremely useful to all students of statistical mechanics...the publishers have done a great service to physics by making this English edition available.'

Technical Book Review

NORTH-HOLLAND PUBLISHING COMPANY

P.O. Box 211 - Amsterdam - The Netherlands

Sole distributors for the U.S.A. and Canada: American Elsevier Publising Company, Inc., 52 Vanderbilt Avenue, NEW YORK, N.Y. 10017

Circle No. 37 on Reader Service Card

CALL FOR ENTRIES

American Institute of Physics
United States Steel Foundation
1975
Science-Writing
Award in
Physics and
Astronomy

consisting

\$1500.

a stainless-steel Moebius strip, and a certificate

for

Distinguished writing about physics and astronomy for the general public

by

Physicists, astronomers, or members of AIP Member and Affiliated Societies

in

Articles, booklets, or books published from June 1, 1974 to May 31, 1975

> DEADLINE IS JUNE 15, 1975

For complete rules and entry form please write:

Public Relations Division, Dept. S American Institute of Physics 335 East 45 Street New York, N.Y. 10017

Your Best Source

FOR

"Off-The-Shelf"

OPTICS

IN THE U.S.A.



ROLYN OPTICS

300 North Rolyn Place P.O. Box 148 • Arcadia, Calif. 91006

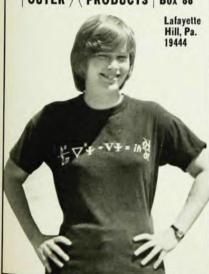
Circle No. 38 on Reader Service Card

THE EQUATION WAS WORTH A NOBEL PRIZE.

FOR \$4.50 WE INCLUDE THE SHIRT.

Schrodinger's Equation on a washable navy blue T-shirt. Sizes S (tiny tots up), M (undergraduate through Ph.D.), L (Post Docs), XL (Research Directors).

OUTER \ (PRODUCTS | Box 88



Circle No. 39 on Reader Service Card

Acoustics

Acoustical Holography Vol. 5. P. S. Green, ed. 738 pp. Plenum, New York, 1974. \$32.50

An Introduction to Acoustical Holography. (Paperback edition of 1972 book). B. P. Hildebrand. B. B. Brenden. 224 pp. Plenum, New York, 1974. \$6.95

Optics

Integrated Optics and Optical Communications. G. Ward, ed. 228 pp. MSS Information Corp, New York, 1974. \$6.25

Introduction to Integrated Optics. M. K. Barnoski, ed. 515 pp. Plenum, New York, 1974. \$25.00

An Introduction to Nonlinear Optics. (Paperback edition of 1969 book). G. C. Baldwin. 155 pp. Plenum, New York, 1974. \$5.95

Ultrasonic Imaging and Holography: Medical, Sonar and Optical Applications. G. W. Stroke, W. E. Kock, Y. Kikuchi, J. Tsujiuchi, eds. 642 pp. Plenum, New York, 1974. \$37.50

Quantum Electronics and Lasers

Advances in Quantum Electronics Vol. 2. D. W. Goodwin, ed. 297 pp. Academic, New York, 1974. \$21.00

Photon Correlation and Light Beating Spectroscopy. (NATO Advanced Study Inst. Lectures, Capri, 16–27 July 1973). H. Z. Cummins, E. R. Pike, eds. 584 pp. Plenum, New York, 1974. \$37.50

Materials and Solid State

Amorphous and Liquid Semiconductors. J. Tauc, ed. 441 pp. Plenum, New York, 1974. \$28.00

Applications of Ion Beams to Metals. S. T. Picraux, E. P. EerNisse, F. L. Vook, eds. 706 pp. Plenum, New York, 1974. \$39.50

Characterization of Solid Surfaces. P. F. Kane, G. R. Larrabee, eds. 670 pp. Plenum, New York, 1974. \$32.50

Diffusion and Defect Data Vol. 8. F. H. Wöhlbier, ed. 353 pp. Trans Tech Publications, Bay Village, Ohio, 1974.

Inorganic Solids: An Introduction to Concepts in Solid-State Structural Chemistry. D. M. Adams. 336 pp. Wiley, New York, 1974. \$22.50

An Introduction to Solid State Physics and Its Applications. R. J. Elliott, A. F. Gibson. 490 pp. Barnes & Noble, New York, 1974. \$17.95

Liquid Crystals and Ordered Fluids Vol. 2. J. F. Johnson, R. S. Porter, eds. 783 pp. Plenum, New York, 1974. \$39.50

Mechanical Properties of Polymers and Composites Vol. 1. L. E. Nielsen. 255 pp. Marcel Dekker, New York, 1974. \$24.50

The Physics of Liquid Crystals. P. G. de Gennes. 333 pp. Oxford U. P., New York, 1974. \$32.50

Polymer Characterization by Thermal Methods of Analysis. J. Chiu, ed. 254 pp. Marcel Dekker, New York, 1974. \$25.50

Recent Advances in Polymer Blends, Grafts and Blocks. L. H. Sperling, ed.

IMPROVE YOUR SPECTROSCOPY PERFORMANCE BY A FACTOR OF FIVE



24-inch-diameter shield

Anti-Coincidence Shields Custom-Designed and Constructed by Nuclear Enterprises Have Yielded a Fivefold Increase in Compton Rejection Ratio

Using standard NE and Pilot plastic scintillators, these specially fabricated anti-coincidence shields are factory-built to meet customer requirements. Any type or degree of construction can be supplied — from a simple plastic scintillator shield to a finished shield assembly including scintillator, housing and PMT's, tested and ready for use. Specially suited for use with Nal and Ge(Li) detectors.

If you're looking for counting accuracy improvement, give us a call. We'll be happy to discuss your specific requirements.



For technical specifications and ordering information call or write:

nuclear enterprises, inc.

Circle No. 40 on Reader Service Card

NEW digital signal analyzer... NS-575A



NS-575A is the most advanced fixed program signal averaging system. Standard mainframe features include:

- * 1024, 2048 or 4096 memory with 2²⁰-1 counts per address
- * 4 digit thumbwheel time base control. 10 uSec. to 10 Sec. per address.
- * Pre and post analysis delay
- * Continuous or real time display
- Digital display of address, data, and number of sweeps performed
- * Built in oscilloscope
- * 7 data processing modes
- * Readout modes to analog and digital recorders
- * Compatible with Tracor Northern's complete line of digital I/O accessories. Easily interfaced to computers.

NS-575A provides unmatched flexibility and versatility with 17 plug-in modules for:

- * High resolution (9 or 12 bit) averaging of 1 to 8 signals at speeds up to 10 uSec. per address
- * 10 nSec. per address averaging with Biomation Transient Recorder
- * PHA/MCS analysis
- * Auto and Cross Correlation Analysis
- * Parametric Sweep and Pre-synchronization signal averaging
- * Time interval trend/distribution analysis
- * Signal frequency analysis
- * Voltage distribution analysis
- * High resolution waveform digitizing

Tracor Northern

2551 West Beltline Highway • Middleton, Wisconsin 53562 (608) 836-6511 • TWX-910-280-2521

Tracor Europa B.V.

Schiphol Airport Amsterdam • Building 106. The Netherlands Telephone (020) 41 18 65 • Telex 13695

Circle No. 41 on Reader Service Card

The most versatile cryogenic sample cooling systems in the world?



Ask the researchers who use them.*

They get sample temperature stability of $\pm 0.01^{\circ}$ from 2°K to 300°K. (That's the automatically controlled model; others are a little less precise at less cost.)

They get compactness: a HELI-TRAN system fits almost any application—and in any orientation.

They get productivity, because cool-down time is only 10 to 20 minutes. And performance: we supply specialized accessories for more than 25 different scientific uses. The price is right, too.

Find out what those researchers already know: if you use cryogenic temperatures, we'd like to send you a copy of our no-nonsense catalog, "Laboratory Cryogenic Systems." For a copy, or for more information about HELI-TRAN or other Air Products cryogenic systems, just call (215) 395-8355. Or write Advanced Products Department, Air Products and Chemicals, Inc., Allentown, Pa. 18105.

*Representative list of customers provided on request.



PRECISION MIRROR MOUNTS

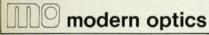


NEW LOW PRICE ONLY \$4995

- Adjustment by ¼ 40 stainless thumb screws
- · 360° pivotal base mount
- · Holds up to 2" diameter mirrors
- 7 degrees angular adjustment
- Resolution: 7 arc-seconds per degree of thumb screw rotation
- Angular sensitivity: 1 to 2 arc-seconds

Furnished with first surface aluminized mirror and extra mirror holder, only \$69.95. High quality wavelength mirrors also available.

Modern Optics Corporation, 2207 Merced Ave., El Monte, California 91733 (213) 579-3020.



Circle No. 43 on Reader Service Card



air cooled hermetic compressor Immersion Head 7/8" x 5" long Continuous operation

USE WITH ANY BATH TO ACHIEVE BELOW AMBIENT TEMPERATURES

Write us for complete details



871 Islington Street, Portsmouth, New Hampshire 03801 U.S.A.

Circle No. 44 on Reader Service Card

439 pp. Plenum, New York, 1974. \$29.95

The Solid State of Polymers. (Joint US-Japan Seminar, Cleveland, Ohio, 9-13 October 1972). P. H. Geil, E. Baer, Y. Wada, eds. 708 pp. Marcel Dekker, New York, 1974.

Solid State Physics, 2nd ed. J. S. Blakemore. 506 pp. W. B. Saunders, Philadelphia, Pa., 1974. \$16.95

Treatise on Materials Science and Technology Vol. 4. H. Herman, ed. 319 pp. Academic, New York, 1974. \$29.50

X-ray Diffraction. L. V. Azároff, R. Kaplow, N. Kato, R. J. Weiss, A. J. C. Wilson, R. A. Young. 664 pp. McGraw-Hill, New York, 1974. \$27.50

Low Temperature

Low Temperature Laboratory Techniques. A. C. Rose-Innes. 225 pp. Crane, Russak, New York, 1974. \$12.75

Low Temperature Physics—LT13 Vol 1: Quantum Fluids. (Int. Conf. Proc., Boulder Colo., 21–25 August 1972). K. D. Timmerhaus, W. J. O'Sullivan, E. F. Hammel, eds. 609 pp. Plenum, New York, 1974. \$35.00

Astronomy, Space Physics

Astronomy of Star Positions: A Critical Investigation of Star Catalogues, the Methods of Their Construction, and Their Purpose. H. Eichhorn. 357 pp. Frederick Ungar, New York, 1974. \$25.00

Cargèse Lectures in Physics Vol. 6. E. Schatzman, ed. 731 pp. Gordon & Breach, New York, 1974. \$49.50

Galactic and Extra-Galactic Radio Astronomy. G. L. Verschuur, K. I. Kellermann, eds. 402 pp. Springer-Verlag, New York, 1974. \$37.50

Research Programmes for the New Large Telescopes. (ESO/SRC/CERN Conf. Proc., Geneva, 27–31 May 1974). A. Reiz, ed. 398 pp. European Southern Observatory, Geneva, Switz., 1974.

Geophysics

Particle Diffusion in the Radiation Belts.
M. Schulz, L. J. Lanzerotti. 215 pp.
Springer-Verlag, New York, 1974. \$32.00

Physics of Drop Formation in the Atmosphere. Yu. S. Sedunov. 334 pp. Halsted, New York, 1974. \$21.00

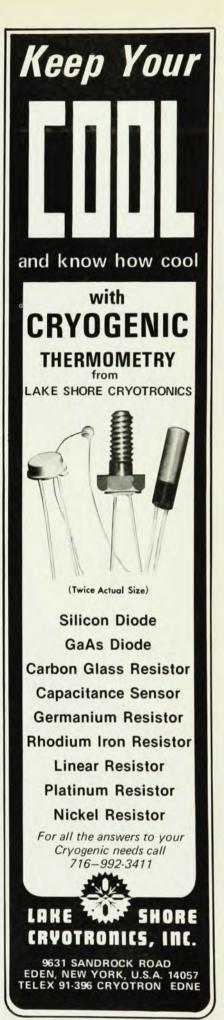
Radio Wave Propagation and the Ionosphere Vol. 2: Propagation of Electromagnetic Waves Near the Earth, 2nd ed. Ya. L. Alpert. 268 pp. Plenum, New York, 1974. \$37.50

Biophysics

Annual Review of Biophysics and Bioengineering Vol. 3, 1974. L. J. Mullins, W. A. Hagins, L. Stryer, C. Newton, eds. 403 pp. Annual Reviews Inc, Palo Alto, Calif., 1974. \$12.00

From Theoretical Physics to Biology. (Proc. 3rd Int. Conf., Versailles, France, 21–26 June 1971). M. Marois, ed. 467 pp. S. Karger, Basel, Switzerland, 1974. \$43.00

Metal Ions in Biological Systems Vol. 1: Simple Complexes. H. Sigel, ed. 267 pp. Marcel Dekker, New York, 1974.



Circle No. 45 on Reader Service Card

Digital, analog, or meter readouts remote to 1,000 feet. Direct pressure unit readings.

300

100

10

10-

10-2

10-3

10-4

10-5

9-01

(PSI

PRESSURE

manometers TYPICAL APPLICATIONS

flow; vacuum metallurgy; pollur flow; vacuum metallurgy; pollur chemical and UF₆ process, McLeod gauges. Replacement of Thermocouple, Pirani Industrial: pressure control; Replacement of liquid Alphatron gauges. control; - tensioned or used, BARATRON Capacitance

presence be baked to avoid 3 torr sensitivity in a simple, gases and corrosives accurate vacuum and These gauges eliminate technique 0-6 to 15,000 torr (10-7 to 300 psi). hot 0 problems. Vacuum models can changes of composition and operated system. the diaphragm unaffected and mercury handling nandle many industrial highly diaphragm and measuring .s to 450°C condensation. measurement Because of vapors. pressure achieve

pollution testing

leak

Calibration standard and vacuum standard

ood process.

Analysis: mass spectrometer,

High Purity - 450°C bakeout

area, and adsorption.

Sputtering and vacuum furnace.

including UF, and

ultra models including ligh accuracy laboratory models and industrial Many models to choose from, ow pressure process work economical rugged,

Corrosive gases, dirty gases, radioactive

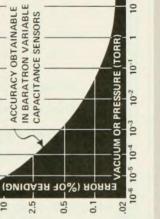
Wind tunnel and space chambers

Gas backfilling or mixing.

BAKEABLE HEAD

ABSOLUTE HEAD

617-272-9255 Telex: 94-9375 01803 Tel: Burlington, Mass. 25 Adams St.



SYSTEMS

104

103

00



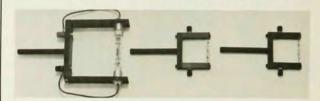


2.5 0,5 0.1 CAPACITANCE MANOMETER WITH THE MKS BARATRON TO THIS DEGREE OF ACCURACY

IN BARATRON VARIABLE CAPACITANCE SENSORS ACCURACY OBTAINABLE

Circle No. 46 on Reader Service Card

RADIOMETRIC STANDARDS CALIBRATION SERVICES



1000-WATT

200-WATT

45-WATT

HIGH ACCURACY IRRADIANCE STANDARDS

Ultraviolet - Visible - Infrared

Optronic Laboratories is now offering:

- ☐ Radiometric standards based on the new (1973) NBS Irradiance Scale: ±1% accuracy in the visible.
- ☐ Calibration Services: Detectors, Radiometers, Spectroradiometers, Continuous and Pulsed Sources.
- ☐ Radiometric Instrumentation: Radiometers and Spectroradiometers.
- ☐ Standard and Custom Calibration Sources: Star Simulators, Solar Constant, Continuously Variable, Large Area Radiance and Low-Light-Level Sources

For additional information contact:



OPTRONIC LABORATORIES, INC.

7676 Fenton Street Silver Spring, Maryland 20910 (301) 587-2255

Emphasizing Precision and Accuracy

Circle No. 47 on Reader Service Card

J. ROBERT OPPENHEIMER RESEARCH FELLOWSHIPS

The Los Alamos Scientific Laboratory is proud to announce the second annual competition for the J. Robert Oppenheimer Research Fellowships.

Candidates should be recent recipients of a doctorate in the physical sciences, natural sciences, mathematics, or engineering who have demonstrated the ability to perform research of the highest degree of excellence.

The one to three year appointments carry an annual salary of \$22,500.00.

Closing date for the competition is December 1. 1974.



Inquiries should be directed to:

R. Lynn Wilson Recruiting Supervisor Division 75-U Los Alamos Scientific Laboratory P. O. Box 1663 Los Alamos New Mexico 87544

AN EQUAL OPPORTUNITY EMPLOYER

U.S. CITIZENSHIP REQUIRED

POSTDOCTORAL RESEARCH

The National Research Council announces the Research Associateship Programs for 1975. The programs provide scientists and engineers opportunities for postdoctoral research on problems in the fields of CHEMISTRY—SPACE SCIENCES—PHYSICS—ATMOSPHERIC & EARTH SCIENCES—ENGINEERING—LIFE SCIENCES—MATHEMATICS and ENVIRONMENTAL SCIENCES.

Appointments are made on a competitive basis, and are tenable in selected federal research laboratories at more than 80 locations.

Appointments are open to recent recipients of the doctorate and in some cases to senior investigators. Some are open to non-U.S. citizens also.

Approximately 250 awards will be made in 1975. Stipends (subject to income tax) will range from \$15,000 upwards. Grants will be provided for family relocation and for professional travel during tenure.

Applications must be postmarked by January 15, 1975. Awards will be announced in April.

Information on specific research opportunities and application materials are available from

Associateship Office JH606-H

NATIONAL RESEARCH COUNCIL

2101 Constitution Avenue, N.W. Washington, D. C. 20418

SENIOR SCIENTIST

Applications are invited for a Senior Scientist staff position immediately available in the Nuclear Chemistry Division of the Lawrence Berkeley Laboratory. We are seeking an experimentalist with several years experience and demonstrated high capabilities in the field of direct reactions with heavy ions, to carry on a nuclear physics research pro-gram, primarily at the 88" cyclotron. Applicants are requested to send a resume and two letters of reference before November 1, 1974, to:

> Mr. David L. Hendrie Chairman of the Search Committee Building 88

LAWRENCE BERKELEY LABORATORY

Berkeley, California 94720

An Equal Opportunity Employer M/F

Molecules and Life. (Paperback edition of 1970 book). M. V. Vol'kenshtein. 513 pp. Plenum, New York, 1974. \$7.95

Trends in Macromolecular Science. H. Elias, ed. 104 pp. Gordon & Breach, New York, 1974. \$12.00

Theory and Mathematical Physics

Courses of Theoretical Physics Vol. 4: Relativistic Quantum Theory, Part 2. E. M. Lifshitz, L. P. Pitaevskii. 616 pp. Addison-Wesley, Reading, Mass., 1974. \$12.50

Fundamental Theories in Physics. (Part of Proc., Orbis Scientiae, U. of Miami, 7–12 January 1974). S. L. Mintz, L. Mittag, S. M. Widmayer, eds. 248 pp.. Plenum, New York, 1974. \$22.50

The $P(\phi)_2$ Euclidean (Quantum) Field Theory. B. Simon. 392 pp. Princeton U. P., Princeton, N. J., 1974. \$20.00 hardcover \$7.50 paperback

Physical Aspects of Lie Group Theory. R. Hermann. 271 pp. Les Presses de l'Université de Montreal, Montreal, Canada, 1974.

Instrumentation and Techniques

Elemental X-ray Analysis of Materials: EXAM Methods. J. C. Russ. 89 pp. EDAX International Inc, Prairie View, Ill., 1972. \$5.00

Metallographic Specimen Preparation: Optical and Electron Microscopy. J. L. McCall, W. M. Mueller, eds. 358 pp. Plenum, New York, 1974. \$26.00

Heat, Thermodynamics, Statistical Physics

Gibbs States on Countable Sets. C. J. Preston. 128 pp. Cambridge, U. P., New York, 1974. \$10.95

Lectures in Statistical Physics. W. C. Schieve, J. S. Turner, eds. 342 pp. Springer-Verlag, New York, 1974. \$9.90

Modern Developments in Thermodynamics. B. Gal-Or, ed. 458 pp. Halsted, New York, 1974.

Molecular Structure and Thermodynamics, F. P. Incropera. 331 pp. Wiley, New York, 1974. \$16.95

History and Philosophy

Science and Creation, From Eternal Cycles to an Oscillating Universe. S. L. Jaki. 367 pp. Neale Watson Academic Publications, New York, 1974. \$15.00

Society and Government

Energy, Ecology, and the Environment. R. Wilson, W. J. Jones. 353 pp. Academic, New York, 1974. \$4.95

Popularizations

Soviets in Space. P. L. Smolders. 286 pp. Taplinger, New York, 1974. \$9.95

Miscellaneous

Energy—A Special Bibliography with Indexes. 520 pp. National Aeronautics and Space Administration, Washington, D. C., 1974. (Available at NASA SP7042 from NTIS, Springfield, Va. 22151). \$6.00



Wide Band, Precision

CURRENT

With a Pearson current monitor and an oscilloscope, you can measure pulse or ac currents from milliamperes to kiloamperes, in any conductor or beam of charged particles, at any voltage level up to a million volts, at frequencies up to 35 MHz or down to 1 Hz.

The monitor is physically isolated from the circuit. It is a current transformer capable of highly precise measurement of pulse amplitude and waveshape. The one shown above, for example, offers pulse-amplitude accuracy of +1%, -0% (typical of all Pearson current monitors), 10 nanosecond rise time, and droop of only 0.5% per millisecond. Three db bandwidth is 1 Hz to 35 MHz.

Whether you wish to measure current in a conductor, a klystron, or a particle accelerator, it's likely that one of our off-the-shelf models (ranging from ½" to 103/4" ID) will do the job. Contact us and we will send you engineering data.

PEARSON ELECTRONICS INC

4007 Transport St., Palo Alto, California 94303 Telephone (415) 326-7285



Circle No. 48 on Reader Service Card