

tion in plasma media and is a photo-offset reproduction of an IBM-typed (unjustified) manuscript and is not in a printed form.

There is no question that this book will be of great interest to the specialist who wants the mathematical minutiae of particular subjects. It is

carefully detailed in its theoretical treatment of the mathematical steps necessary to arrive at the required solution of particular problems and, as such, should be available for the use of all theoretical plasma physicists. On the other hand, the general reader may not find the material sufficiently

inclusive or physical for his purposes. If used in a graduate course, even the problems which are given at the end of the text will be those of interest in terms of the mathematical analysis of plasma theory rather than a balanced coverage of waves, rays, and radiation in plasma media.

## BOOKS RECEIVED

### ASTRONOMY & ASTROPHYSICS

**Astrophysics and the Many-Body Problem.** Summer Inst. (Brandeis U., 1962). By E. N. Parker, J. S. Goldstein, A. A. Maradudin, V. Ambegaokar. 438 pp. Benjamin, New York, 1963. Cloth, \$9.00; paper, \$5.95.

### ATOMIC & MOLECULAR PHYSICS

**Electrons in Atoms.** By G. F. Lothian. 196 pp. Butterworths, London, 1963. \$6.95.

### BIOPHYSICS & MEDICAL PHYSICS

**Quantum Biochemistry.** By Bernard Pullman and Alberte Pullman. 867 pp. Interscience, New York, 1963. \$27.50.

### CHEMISTRY & CHEMICAL PHYSICS

**Surface Properties of Silicate Glasses.** By György Korányi. Transl. from Hungarian by Ferenc Tamás. 104 pp. Akadémiai Kiadó, Budapest, 1963.

**Modern Approach to Inorganic Chemistry.** C. F. Bell and K. A. K. Lott, eds. 293 pp. Butterworths, London, 1963. \$8.95.

**Zone Melting of Organic Compounds.** By E. F. G. Herington. 162 pp. Wiley, New York, 1963. \$5.95.

**Coordination Chemistry.** Conf. Proc. (Sweden, June 1962). 123 pp. Butterworths, London, 1963. \$5.00.

### COMPUTATION & COMMUNICATION

**The Mathematical Theory of Communication.** By Claude E. Shannon and Warren Weaver. 117 pp. Univ. of Illinois Press, Urbana, 1963. 95 cents.

### ELECTRICITY & MAGNETISM

**Progress in Dielectrics, Volume 5.** J. B. Birks and J. Hart, eds. 368 pp. Academic, New York, 1963. \$13.00.

**Micromagnetics.** By William Fuller Brown, Jr. 143 pp. Interscience, New York, 1963. \$5.95.

### EXPERIMENTAL TECHNIQUES

**Cryogenic Technology.** Robert W. Vance, ed. 585 pp. Wiley, New York, 1963. \$19.50.

**Handbook of High Vacuum Engineering.** By H. A. Steinherz. 358 pp. Reinhold, New York, 1963. \$11.75.

### GEOPHYSICS & EARTH SCIENCES

**Advances in Upper Atmosphere Research.** NATO Advanced Study Inst. (Corfu, 1960). B. Landmark, ed. 340 pp. (Pergamon, Oxford). Macmillan, New York, 1963. \$12.25.

### HANDBOOKS, TABLES, ETC.

**Reactor Physics Constants (2nd Ed.).** 850 pp. USAEC. Distr. by US Government Printing Office, Washington, D. C., 1963. \$6.00.

**German-English Dictionary of Glass, Ceramics and Allied Sciences.** By Thomas H. Elmer. 304 pp. Interscience, New York, 1963. \$15.00.

**The Identification of Molecular Spectra (3rd ed.).** By R. W. B. Pearse and A. G. Gaydon. 347 pp. Wiley, New York, 1963. \$18.50.

**Organic Electronic Spectral Data, Volume 4, 1958-59.** J. P. Phillips and F. C. Nachod, eds. 1179 pp. Interscience, New York, 1963. \$20.00.

### HISTORY & PHILOSOPHY OF SCIENCE

**The New World of Physics.** By Arthur March and Ira M. Freeman. 195 pp. Random House, New York, 1962. \$4.95.

**Scientific Change.** Historical Studies in the Intellectual, Social, and Technical Conditions for Scientific Discovery and Technical Invention, from Antiquity to the Present. Symp. Proc. (Oxford U., July 1961). A. C. Crombie, ed. 896 pp. Basic Books, New York, 1963. \$17.50.

### MATHEMATICS

**Linear Differential Equations in the Real Domain.** By Kenneth S. Miller. 193 pp. W. W. Norton, New York, 1963. \$5.75.

**Multilinear Analysis for Students in Engineering and Science.** By G. A. Hawkins. 219 pp. Wiley, New York, 1963. Paper, \$2.95; cloth, \$6.50.

**Basic Mathematics for the Physical Sciences.** By Haym Kruglak and John T. Moore. 354 pp. McGraw-Hill, New York, 1963. Paper, \$3.95.

### NUCLEAR PHYSICS

**Nuclear Chemistry.** By Noah R. Johnson, Eugene Eichler, G. Davis O'Kelley. Vol. 2 of *Technique of Inorganic Chemistry*, edited by Hans B. Jonassen and Arnold Weissberger. 202 pp. Interscience, New York, 1963. \$8.00.

**The Nucleon-Nucleon Interaction.** Experimental and Phenomenological Aspects. By Richard Wilson. 249 pp. Interscience, New York, 1963. \$6.00.

**Direct Interactions and Nuclear Reaction Mechanisms.** Conf. Proc. (Univ. of Padua, Sept. 1962). E. Clementel and C. Villi, eds. Vol. 1 of *Nuclear Physics*, edited by L. Lederman and J. Weneser. 1187 pp. Gordon and Breach, New York, 1963. \$39.50.

**Recent Research on Beta-Disintegration.** By A. I. Alikhanov. Transl. from Russian by William E. Jones. 130 pp. (Pergamon, Oxford) Macmillan, New York, 1963. \$3.00.

### NUCLEAR POWER & TECHNOLOGY

**The Design of Gas-Cooled Graphite-Moderated Reactors.** D. R. Poulter, ed. 692 pp. Oxford, New York, 1963. \$13.45.

**Radiation Damage in Solids, Vol. 3.** Symp. Proc. (Venice, May 1962). IAEA, Vienna, 1963. 187 pp. Distr. in US by Nat'l Agency for Internat'l Publications, New York, 1963. Paper, \$4.00.

### OPTICS & SPECTROSCOPY

**Photoelasticity.** Symp. Proc. (Chicago, Oct. 1961). M. M. Frocht, ed. 294 pp. Pergamon, London, 1963. Distr. in US by Macmillan, New York. \$14.00.

**Masers and Lasers (2nd ed.).** Molecular Amplification and Oscillation by Stimulated Emission. By Gordon Troup. 192 pp. (Methuen, London) Wiley, New York, 1963. \$4.50.

### PHYSICS OF FLUIDS

**The Mathematical Theory of Viscous Incompressible Flow.** By O. A. Ladyzhenskaya. Revised English ed. transl. from Russian by Richard A. Silverman. Vol. 2 of *Mathematics and its Applications*, edited by Jacob T. Schwartz. 184 pp. Gordon and Breach, New York, 1963. \$9.50.



**A Study of Splashes** (1908 ed.). By A. M. Worthington. 169 pp. Macmillan, New York, 1963. \$4.95.

**Lattice Theories of the Liquid State.** By J. A. Barker. Vol. 1 of Topic 10 of The International Encyclopedia of Physical Chemistry and Chemical Physics, edited by E. A. Guggenheim, J. E. Mayer, F. C. Tompkins. 133 pp. (Pergamon, Oxford) Macmillan, New York, 1963. \$8.50.

#### PLASMA PHYSICS

**Elementary Plasma Physics.** By Conrad L. Longmire. 296 pp. Interscience, New York, 1963. \$9.75.

#### SOLID STATE PHYSICS

**Crystal Orientation Manual.** By Elizabeth A. Wood. 75 pp. Columbia Univ. Press, New York, 1963. Paper, \$4.00.

**High-Temperature Inorganic Coatings.** John Hummick, Jr., ed. 310 pp. (Chapman & Hall, London) Reinhold, New York, 1963. \$10.00.

**Physics and Chemistry of the Organic Solid State, Volume 1.** David Fox, Mortimer M. Labes, Arnold Weissberger, eds. 823 pp. Interscience, New York, 1963. \$25.00.

**Ceramics: Stone Age to Space Age.** By Lane Mitchell. 128 pp. Scholastic Book Services, New York, 1963. Paper, 50 cents.

**Concepts in Solids.** Lectures on the Theory of Solids. By P. W. Anderson. 188 pp. Benjamin, New York, 1963. Cloth, \$8.50; paper, \$4.95.

**Elementary Excitations in Solids.** By David Pines. 299 pp. Benjamin, New York, 1963. Cloth, \$9.00; paper, \$5.95.

#### SPACE SCIENCES & AERODYNAMICS

**Supersonic Aerodynamics and Rocket Propulsion.** By Robert F. Lee. 191 pp. Robert F. Lee, Los Angeles, Calif. Cloth, \$7.00; paper, \$5.50.

#### TEXTBOOKS

**Junior Physics, Volume 1.** By L. R. Middleton. 159 pp. John Murray, London, 1963. Cloth, 12s 6d; paper, 10s 6d.

**Physics for Engineers.** By G. F. Lewin. 310 pp. Butterworths, London, 1963. \$9.95.

#### THEORETICAL PHYSICS

**Einführung in die Theorie der speziellen Funktionen der mathematischen Physik.** By Friedrich Wilhelm Schäfke. Vol. 118 of Die Grundlehren der mathematischen Wissenschaften, edited by B. Eckmann and B. L. Van der Waerden. 249 pp. Springer-Verlag, Berlin, 1963. DM 49.40.

**1962 Cargèse Lectures in Theoretical Physics.** French Summer School for Theoretical Physics (Cargèse, Corsica, 1962). Maurice Lévy, ed. 11 Chapters. Benjamin, New York, 1963. Cloth, \$12.00; paper, \$7.95.

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