

It is really remarkable how the author has succeeded in presenting a wealth of material in so few pages but in a highly readable manner. The book is well organized and is written in lively style. For these reasons, it is highly recommended to serious students of probability theory, and to those mathematicians who desire a brief introduction to this field.

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New Books

Mathematics, Physical Sciences, and Engineering

Advances in Cryogenic Engineering. vol. 10. Proceedings, Cryogenic Engineering Conference, Sections A to L (Philadelphia), August 1964. K. D. Timmerhaus, Ed. Plenum Press, New York, 1965. 525 pp. Illus. \$17.50. Sixty-two papers.

Advances in Theoretical Physics. vol. 1. Keith A. Brueckner, Ed. Academic Press, New York, 1965. 335 pp. Illus. \$12. Six papers: "The theory and application of the Padé approximant method" by George A. Baker, Jr.; "Theory of the giant dipole resonance" by W. Brenig; "The optical model" by Alexander L. Fetter and Kenneth M. Watson; "Hydro-magnetic equilibrium and stability" by John M. Greene and John L. Johnson; "The heavy ion transfer reaction" by K. R. Greider; and "Elastic scattering of electrons by atoms" by Marvin H. Mittleman.

Atomic Theory of Gas Dynamics. John W. Bond, Jr., Kenneth M. Watson, and Jasper A. Welch, Jr. Addison-Wesley, Reading, Mass., 1965. 528 pp. Illus. \$16.75. Addison-Wesley Series in Aerospace Science; H. W. Emmons and S. S. Penner, Consulting Editors.

Atoms, Molecules, and Chemical Change. Russell H. Johnson and Ernest Grunwald. Prentice-Hall, Englewood Cliffs, N.J., ed. 2, 1965. 368 pp. Illus. \$7.50.

Chemical Protection Against Ionizing Radiation. Zénon M. Bacq. Thomas, Springfield, Ill., 1965. 344 pp. Illus. \$14. American Lectures in Living Chemistry, edited by I. Newton Kugelmass.

Classical Dynamics of Particles and Systems. Jerry B. Marion. Academic Press, New York, 1965. 592 pp. Illus. \$11.50.

Concepts from Tensor Analysis and Differential Geometry. Tracy Y. Thomas. Academic Press, New York, ed. 2, 1965. 186 pp. Illus. \$7.50. Mathematics in Science and Engineering, vol. 1, edited by Richard Bellman.

Dictionary of Engineering Mechanics: Russian-English. Including the disciplines of aeromechanics, elasticity, fluid mechanics, plasticity, rigid body mechanics, theory of structures, vibrations. Charles O. Heller. Elsevier, New York, 1965. 87 pp. \$5.

Differential and Integral Calculus. Edmund Landau. Translated from the Ger-

man edition (1934) by Melvin Hausner and Martin Davis. Chelsea, New York, ed. 3, 1965. 380 pp. Illus. \$6.

Electrophilic Substitution in Benzenoid Compounds. R. O. C. Norman and R. Taylor. Elsevier, New York, 1965. 353 pp. Illus. Paper, \$12.75. Reaction Mechanisms in Organic Chemistry Series, edited by C. Eaborn.

Elementary Mathematics for Scientists and Engineers. M. D. Hatton. Pergamon, New York, 1965. 408 pp. Illus. Paper, 21s. A volume in the Commonwealth and International Library.

Elementary Particle and High Energy Physics. Lectures given at the Cargèse Summer School of Theoretical Physics, 1963. M. Levy and Ph. Meyer, Eds. Gordon and Breach, New York, 1965. 370 pp. Illus. Paper, \$7.95; cloth, \$14.50. Six lectures: "Strong interactions at very high energy" by L. Van Hove; "Complex angular momentum theory of particles with spin" by J. M. Charap; "Phenomenological analysis of the new resonances" and "Spin effects in the Regge pole approach to high energy collisions" by M. Jacobs; "Symétrie Untaire-Modèle de l'Océ" by M. Gourdin; Quantum theory of gauge fields" by J. Schwinger, and "Phenomenological study of weak interactions—Selected topics" by Ph. Meyer.

Engineering Physical Metallurgy. Y. Lakhtin. Translated from the Russian edition by Nicholas Weinstein. Gordon and Breach, New York; Noordhoff, Groningen, Netherlands, 1965. 471 pp. Illus. \$14.50. Russian Monographs and Texts on Advanced Mathematics and Physics, vol. 22.

Fiber Composite Materials. Papers presented at a seminar, October 1964. Spencer H. Bush, Coordinator. American Soc. for Metals, Metal Park, Ohio, 1965. 255 pp. Illus. \$12.50. Ten papers: "An introductory review" by W. R. Hibbard, Jr.; "Factors influencing the strength of whiskers" by S. S. Brenner; "Mechanics of composite strengthening" by B. Walter Rosen; "Potential of unidirectionally solidified eutectic alloys as reinforced composites" by Richard W. Hertzberg; "A mathematical model for mechanical behavior of interfaces in composite materials" by L. J. Ebert and J. D. Gadd; "Deformation and fracture modes in fiber-reinforced metals" by N. M. Parikh; "Design and performance of fibers and composites" by E. Scala; "Destructive and nondestructive testing methods" by S. P. Prosen; "Potential of oxide-fiber reinforced metals" by W. H. Sutton and J. Chorné; and "Metal fiber reinforced ceramics" by J. D. Walton, Jr., and W. J. Corbett.

A First Course in Partial Differential Equations: With Complex Variables and Transform Methods. H. F. Weinberger. Blaisdell (Ginn), New York, 1965. 458 pp. Illus. \$12.50. Blaisdell Book in Pure and Applied Mathematics; George Springer and George F. Carrier, Consulting Editors.

Flame Structure. R. M. Fristrom and A. A. Westenberg. McGraw-Hill, New York, 1965. 438 pp. Illus. \$17.50. McGraw-Hill Series in Advanced Chemistry.

Foundations of Relative Homological Algebra. Samuel Eilenberg and J. C. Moore. American Mathematical Soc., Providence, R.I., 1965. 39 pp. Illus. Paper,

\$1.50. Memoir, American Mathematical Society.

Foundations of Solid Mechanics. Y. C. Fung. Prentice-Hall, Englewood Cliffs, N.J., 1965. 539 pp. Illus. \$18. Prentice-Hall International Series in Dynamics, edited by Y. C. Fung.

Galois Theory and Cohomology of Commutative Rings. S. U. Chase, D. K. Harrison, and Alex Rosenberg. American Mathematical Soc., Providence, R.I., 1965. 83 pp. Illus. Paper, \$1.50. Memoir, American Mathematical Society.

General Chemistry. N. Glinka. Translated from the Russian edition by David Sobolev. Gordon and Breach, New York; Noordhoff, Groningen, Netherlands, 1965. 694 pp. Illus. \$17.50.

General Chemistry: Inorganic and Organic. Garth L. Lee and Harris O. Van Orden. Saunders, Philadelphia, ed. 2, 1965. 689 pp. Illus. \$8.

General Relativity and Cosmology. G. C. McVittie. Univ. of Illinois Press, Urbana, ed. 2, 1965. 253 pp. Illus. \$6.95.

Generalizations of a Theorem of Carathéodory. John R. Reay. American Mathematical Soc., Providence, R.I., 1965. 49 pp. Illus. Paper, \$1.50. Memoir, American Mathematical Society.

High-Temperature Compounds of Rare Earth Metals With Nonmetals. Grigori Valentinovich Samsonov. Translated from the Russian edition (Moscow, 1964). Consultants Bureau, New York, 1965. 294 pp. Illus. \$17.50.

International Advances in Cryogenic Engineering. vol. 10. Proceedings, Cryogenic Engineering Conference, Sections M to U (Philadelphia), August 1964. K. D. Timmerhaus, Ed. Plenum Press, New York, 1965. 439 pp. Illus. \$17.50. Forty-two papers.

Introduction to Crystallography: A Programmed Course in Three Dimensions. Books 1 to 3. Book 1, *Packing: The Crystal as an Assembly of Spheres* (226 pp.); Book 2, *Unit Cell and Space Lattices* (198 pp.); Book 3, *Miller Indices: Representation of Planes and Directions* (296 pp.). Bruce Chalmers, James G. Holland, Kenneth A. Jackson, and R. Brady Williamson. Appleton-Century-Crofts (Meredith), New York, 1965. Illus. \$27.50 (complete set will include six books).

Introduction to the Foundations of Mathematics. Raymond L. Wilder. Wiley, New York, ed. 2, 1965. 345 pp. Illus. \$8.

Introduction to the Principles of Mechanics. Walter Hauser. Addison-Wesley, Reading, Mass., 1965. 527 pp. Illus. \$11.75. Addison-Wesley Series in Physics.

Lectures in Theoretical Physics. vol. 7B, *Elementary Particles.* Lectures delivered at the Summer Institute for Theoretical Physics (Boulder, Colo.), 1964. Wesley E. Brittin and Leona Marshall, Eds. Univ. of Colorado Press, Boulder, 1965. 480 pp. Illus. Paper, \$7. Twenty-two papers contributed by F. Ayer, A. O. Barut, Laurie Brown, Richard H. Capps, P. Carruthers, Yam Tsi Chin, H. C. Corben, Joseph Dreitlein, Loyal Durand, Gerson Goldhaber, Sulamith Goldhaber, Toichiro Kinoshita, A. D. Krisch, Benjamin W. Lee, L. Marshall, Arthur W. Martin, Sydney Meshkov, Thomas Oliphant, V. Perez-Mendez, L. David Roper, Franco Selleri, W. Selove, and M. L. Stevenson.