

Then he "generalizes" these to any angular momentum. Actually, the commutation relations for the total angular momentum of a system are a consequence of the assumption of isotropy of space.

For problems with complicated symmetry properties (molecular vibrations, crystalline fields, nuclear models), the power of the group-theoretical methods has been recognized, and physicists working in these fields have been forced to learn the requisite mathematics.

The use of invariance principles to determine the possible types of elementary systems has only recently become familiar to physicists. E. P. Wigner, in particular, has stressed this approach to fundamental problems. The study of relativistically invariant systems should be based on the properties of the representations of the Lorentz group, and not on a particular differential equation.

Lomont's book is an encyclopedia of theorems concerning finite groups, plus sections enumerating results for the three-dimensional rotation group and the Lorentz group. Very few theorems are proved. The reader who is already familiar with group theory will find many remarkable results quoted, so that the book serves as a valuable guide for finding out what problems have been solved. In this respect the value of the book would have been greatly increased had the source of specific theorems been indicated.

Applications of group theory to molecular vibrations, perturbation theory, atomic structure, and crystal lattices are given. In most cases, the concise presentation would make excessive demands on a reader coming upon the subject for the first time.

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Absorption and Dispersion of Ultrasonic Waves. Karl F. Herzfeld and Theodore A. Litovitz. Academic Press, New York, 1959. 553 pp. \$14.50.

The Human Integument. Normal and abnormal. A symposium. Publ. No. 54. Stephen Rothman, Ed. AAAS, Washington, D.C., 1959. 270 pp.

Medical Sciences. vol. 2. J. C. Bugher, J. Coursaget, J. F. Loutit, Eds. Pergamon, New York, 1959. 296 pp. \$15. Some of the papers relating to medical sciences from the Second International Conference on the Peaceful Uses of Atomic Energy (1958) are published in this

volume. In his preface Bugher states that the editors have attempted to make the volume representative of the content of the conference. An appendix gives details of the medical sessions.

Molecules and Mental Health. Frederic A. Gibbs, Ed. Published for the Brain Research Foundation by Lippincott, Philadelphia, Pa., 1959. 201 pp. \$4.75.

Pathology of Tumours of the Nervous System. Dorothy S. Russell and L. J. Rubinstein. Arnold, London, 1959. 324 pp. \$13.50.

Physics, an Exact Science. Harvey E. White and Eugene F. Peckman. Van Nostrand, Princeton, N.J., 1959. 518 pp. \$5.96.

Physiology of Prematurity. Transactions of the third conference. Jonathan T. Lanman, Ed. Josiah Macy, Jr. Foundation, New York, 1959. 157 pp. \$3.

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Poisonous Amphibians and Reptiles. Recognition and bite treatment. Floyd Boys and Hobart M. Smith. Thomas, Springfield, Ill. 1959. 162 pp. \$4.75.

Principles of Geology. James Gilluly, A. C. Waters, A. O. Woodford. Freeman, San Francisco, Calif., ed. 2, 1959. 544 pp. \$7.50.

Pueblo de Arroyo Chaco Canyon, New Mexico. Misc. Collections vol. 138, No. 1. Neil M. Judd. Smithsonian Institution, Washington, D.C., 1959. 230 pp.

Radar Meteorology. Louis J. Battan. Univ. of Chicago Press, Chicago, Ill., 1959. 172 pp. \$6.

Radioisotopes for Industry. Robert S. Rochlin and Warner W. Schultz. Reinhold, New York; Chapman & Hall, London, 1959. 200 pp. \$4.75.

Ramification Theoretic Methods in Algebraic Geometry. Shreeram Abhyankar. Princeton Univ. Press, Princeton, N. J., 1959. 105 pp. \$2.75.

Recent Progress in Hormone Research. Proceedings of the Laurentian Hormone Conference 1958. vol. 15. Gregory Pincus, Ed. Academic Press, New York, 1959. 520 pp. \$12.50.

Seventh Symposium (International) on Combustion. At London and Oxford, 28 August-3 September 1958. Published for the Combustion Institute, by Butterworths, London, 1959. 1005 pp. \$35. Contents: pt. 1, "Mechanism of combustion reactions"; pt. 2, "Spectroscopy of flames"; pt. 3, "Ionization in flames"; pt. 4, "Structure and propagation of flames"; pt. 5, "Ignition and limits of inflammability"; pt. 6, "Interaction of flames and surfaces"; pt. 7, "Turbulence in flames"; pt. 8, "Combustion in practical flowing systems"; pt. 9, "Detonation and its initiation"; pt. 10, "Special fuels"; pt. 11, "Instrumentation in combustion research." There were 254 participants from Great Britain, United States, Germany, France, Belgium, Netherlands, Canada, U.S.S.R., Japan, Spain, Sweden, Africa, Australia, Poland, Hungary, Liechtenstein, Norway, and Yugoslavia.

Simple Methods of Contraception. An assessment of their medical, moral, and

social implications. Winfield Best and Frederick S. Jaffe, Eds. Planned Parenthood Federation of America, New York, 1959. 63 pp.

The Technology of Printed Circuits. The foil technique in electronic production. Paul Eisler. Academic Press, New York, 1959. 415 pp. \$12.

Textbook of Toxicology. Kenneth P. DuBois and E. M. K. Geiling. Oxford Univ. Press, New York, 1959. 313 pp. \$6.50.

Theoretical Organic Chemistry. Papers presented to the Kekule Symposium. Butterworths, London, 1959. 315 pp. \$9.50. The symposium, organized by the Chemical Society on behalf of the Organic Chemistry Section of the International Union of Pure and Applied Chemistry, was held in London, 15-17 September 1958. The 19 papers published in this volume provide the full proceedings of the symposium.

Transplantation of Tissues. Skin, cornea, fat, nerves, teeth, blood vessels, endocrine glands, organs, peritoneum, cancer cells. vol. 2. Lyndon A. Peer, Ed. Williams & Wilkins, Baltimore, Md., 1959. 703 pp. \$20.

Turbulent Transfer in the Lower Atmosphere. C. H. B. Priestley. Univ. of Chicago Press, Chicago, Ill., 1959. 137 pp. \$3.75.

When Negroes March. The march on Washington movement in the organizational politics for FEPC. Herbert Garfinkel. Free Press, Glencoe, Ill., 1959. 224 pp. \$4.

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