

introduction to the theory of weak interactions, including a very clear account of the experimental status of the relevant symmetry principles. The second chapter, entitled "Mathematical preliminaries," provides elegant summaries of all the basic theoretical methods employed in the book, but its 120 pages may prove somewhat forbidding even to advanced graduate students. Although the volume therefore may prove somewhat difficult as a textbook, it is likely to remain the standard reference book on weak interaction theory for some time to come.

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## Many-Body Problems

**Mathematical Methods in Solid State and Superfluid Theory.** Scottish Universities Summer School in Physics, St. Andrews, 1967. R. C. CLARK and G. H. DERRICK, Eds. Plenum, New York, 1968. xvi + 400 pp., illus. \$26.50.

The organizers of the summer school of which this book is the proceedings were able to bring together some very erudite physicists, who in addition write with clarity. There are lectures by Lanczos on variational methods and by Gross on transformation theory which discuss well-developed subjects from a unified and a refreshing point of view. The presentation emphasizes the esthetics of the subject matter, an aspect the reviewer especially enjoyed. The other lectures deal with matters of varying degree of current activity, but again always emphasize the generalities of their subjects. There are lectures also on recent developments in many-body physics such as spin fluctuations, uses of the Bogolyubov inequality, and solution of the ice model which are of considerable interest to theoretical physicists and chemists.

The lectures are almost all written up with a great deal of sophistication and assume some prior knowledge of the subject matter. The strongest sentiment the book excites is the wish that one had attended the summer school. For those of us who did not, and have a smattering of knowledge in many-body theory, it is an excellent book to have available at the institutional library.

C. M. VARMA  
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## Books Received

**The Acquisition of Syntax in Children from 5 to 10.** Carol Chomsky. M.I.T. Press, Cambridge, Mass., 1969. xiv + 130 pp., illus. \$5.95. Research Monograph No. 57.

**Advances in Catalysis and Related Subjects.** Vol. 20. D. D. Eley, Herman Pines, and Paul B. Weisz, Eds. Academic Press, New York, 1969. xviii + 438 pp., illus. \$19.50.

**Advances in Clinical Chemistry.** Vol. 12. Oscar Bodansky and C. P. Stewart, Eds. Academic Press, New York, 1969. xvi + 464 pp., illus. \$19.50.

**Advances in Virus Research.** Vol. 15. Kenneth M. Smith, Max A. Lauffer, and Frederick B. Bang, Eds. Academic Press, New York, 1969. viii + 464 pp., illus. \$19.50.

**Ancillary Techniques of Gas Chromatography.** Leslie S. Ettre and William H. McFadden, Eds. Wiley-Interscience, New York, 1969. xii + 404 pp., illus. \$17.50.

**Approaches to Animal Communication.** Thomas A. Sebeok and Alexandra Ramsay, Eds. Mouton, The Hague, 1969. 262 pp., illus. F. 52. Approaches to Semiotics, vol. 1.

**The Archeology of the New Testament.** The Life of Jesus and the Beginning of the Early Church. Jack Finegan. Princeton University Press, Princeton, N.J., 1969. xxvi + 278 pp., illus. \$20.

**Aspects of Palynology.** Robert H. Tschudy and Richard A. Scott, Eds. Wiley-Interscience, New York, 1969. x + 518 pp., illus. \$24.95.

**Basic Color Terms.** Their Universality and Evolution. Brent Berlin and Paul Kay. University of California Press, Berkeley, 1969. xiv + 178 pp., illus., + chart. \$8.50.

**Behavior Therapy.** Aubrey J. Yates. Wiley, New York, 1970. xiv + 450 pp., illus. \$13.95. Series in Psychology.

**Bloodsucking Flies and Other Outdoor Nuisance Arthropods of New York State.** Hugo Jamnback. New York State Museum and Science Service, Albany, 1969. x + 90 pp., illus. Paper, \$2. Memoir 19.

**The Burrowing Barnacles (Cirripedia: Order Acrothoracica).** Jack T. Tomlinson. Smithsonian Institution Press, Washington, D.C., 1969 (available from the Superintendent of Documents, Washington, D.C.). vi + 162 pp., illus. Paper, \$1.25. U.S. National Museum Bulletin 296.

**Catalog of Recent Ophiuroid Type Specimens in Major Collections in the United States.** Maureen E. Downey. Smithsonian Institution Press, Washington, D.C., 1969 (available from the Superintendent of Documents, Washington, D.C.). vi + 240 pp. Paper, \$1.50. U.S. National Museum Bulletin 293.

**Catholics/U.S.A.** Perspectives on Social Change. William T. Liu and Nathaniel J. Pallone. Wiley, New York, 1970. xiv + 530 pp. \$8.95.

**Computational Methods in Partial Differential Equations.** A. R. Mitchell. Wiley, New York, 1969. xvi + 256 pp., illus. \$11. Introductory Mathematics for Scientists and Engineers.

**A Concept of Corporate Planning.** Russell L. Ackoff. Wiley-Interscience, New York, 1970. xiv + 162 pp., illus. \$7.95.

**Concepts of Zoology.** Hubert Frings and Mable Frings. Macmillan, New York; Collier-Macmillan, London, 1970. x + 454 pp., illus. \$9.95.

**Contemporary Technical Mathematics with Calculus.** Richard S. Paul and M. Leonard Shaevel. Prentice-Hall, Englewood Cliffs, N.J., 1970. xiv + 642 pp., illus. \$11.95.

**The Cornea.** Macromolecular Organization of a Connective Tissue. A symposium, Kyoto, Japan, 1967. Maurice E. Langham, Ed. Johns Hopkins Press, Baltimore, 1969. xii + 244 pp., illus. \$9.

**Cosmic Electrodynamics.** J. H. Piddington. Wiley-Interscience, New York, 1969. xii + 308 pp., illus. \$18.50. Interscience Monographs and Texts in Physics and Astronomy, vol. 23.

**The Cost of Accidents.** A Legal and Economic Analysis. Guido Calabresi. Yale University Press, New Haven, Conn., 1970. xii + 340 pp. \$10.

**Current Topics in Developmental Biology.** Vol. 4. A. A. Moscona and Alberto Monroy, Eds. Academic Press, New York, 1969. xx + 236 pp., illus. \$12.50.

**A Directory of University Urban Research Centers.** Urban Institute, Washington, D.C., 1970. 144 pp. Paper, \$3.50.

**Down's Syndrome (Mongolism).** A Reference Bibliography. Rudolf F. Vollman. National Institutes of Health, Bethesda, Md., 1969 (available from the Superintendent of Documents, Washington, D.C.). iv + 92 pp. Paper, 45¢.

**Economic Analysis and Operations Research: Optimization Techniques in Quantitative Economic Models.** Jati K. Sengupta and Karl A. Fox. North-Holland, Amsterdam; Elsevier, New York, 1969. xvi + 480 pp. \$22.50. Studies in Mathematical and Managerial Economics, vol. 10.

**The Ecosystem Concept in Natural Resource Management.** Based on a symposium, Albuquerque, February 1968. George M. Van Dyne, Ed. Academic Press, New York, 1969. xiv + 386 pp., illus. \$16.50.

**Electric Motors and Their Applications.** Tom C. Lloyd. Wiley-Interscience, New York, 1969. xii + 340 pp., illus. \$10.50.

**Electron Probe Microanalysis.** A. J. Tousimis and L. Marton, Eds. Academic Press, New York, 1969. xii + 452 pp., illus. \$22.50. Advances in Electronics and Electron Physics, Suppl. 6.

**Elementary Excitations in Solids.** The Cortina Lectures and selected lectures from the Conference on Localized Excitations, Milan, July 1966. A. A. Maradudin and G. F. Nardelli, Eds. Plenum, New York, 1969. x + 526 pp., illus. \$35.

**Energy and the Mitochondrion.** David E. Green and Harold Baum. Academic Press, New York, 1970. xiv + 210 pp., illus. \$8.50.

**Energy Transfer and Organic Photochemistry.** A. A. Lamola and N. J. Turro. With chapters by P. A. Leermakers and T. R. Evans. Interscience (Wiley), New York, 1969. xii + 388 pp., illus. \$18.50. Technique of Organic Chemistry, vol. 14.

**Evolution.** Jay M. Savage. Holt, Rinehart and Winston, New York, ed. 2, 1969. viii + 152 pp., illus. Paper, \$2.95. Modern Biology Series.

**Exposed Precambrian Rocks in South-**  
(Continued on page 1025)

## BOOKS RECEIVED

(Continued from page 963)

**east Missouri.** Carl F. Tolman and Forbes Robertson. Missouri Geological Survey and Water Resources, Rolla, 1969. vi + 68 pp. + maps. Paper, \$2. Report of Investigations No. 44. Contribution to Precambrian Geology No. 1.

**Fast Burst Reactors.** Proceedings of a meeting, Albuquerque, January 1969. Robert L. Long and Paul D. O'Brien, Technical Coordinators. Div. of Technical Information, U.S. Atomic Energy Commission, Oak Ridge, Tenn., 1969 (available as CONF-690102 from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va.). x + 646 pp., illus. Paper, \$3. AEC Symposium Series, vol. 15.

**Fertilization.** Comparative Morphology, Biochemistry, and Immunology. Vol. 2. Charles B. Metz and Alberto Monroy, Eds. Academic Press, New York, 1969. xx + 556 pp., illus. \$34.

**Fish in Research.** A symposium, Vermillion, S.D., November 1968. Otto W. Neuhaus and John E. Halver, Eds. Academic Press, New York, 1969. xii + 312 pp., illus. \$8.50.

**Fish Physiology.** W. S. Hoar and D. J. Randall, Eds. Vol. 3, Reproduction and Growth; Bioluminescence, Pigments, and Poisons. Academic Press, New York, 1969. xvi + 488 pp., illus. \$24; by subscription, \$20.

**Gallium Arsenide Lasers.** C. H. Gooch, Ed. Wiley-Interscience, New York, 1969. xii + 340 pp., illus. \$14.50.

**Genesis of Stratiform Lead-Zinc-Barite-Fluorite Deposits in Carbonate Rocks.** (The So-Called Mississippi Valley Type Deposits). A symposium, New York, March 1966. J. S. Brown, Ed. Economic Geology Publishing Company, c/o A. M. Bateman, Yale University, New Haven, Conn., 1967. x + 466 pp., illus. Paper, \$6. Economic Geology Monograph 3.

**Genetics of Antibiotic-Producing Microorganisms.** G. Sermonti. Wiley-Interscience, New York, 1969. xiv + 390 pp., illus. \$18. Techniques in Pure and Applied Microbiology.

**Gravity Flow of Bulk Solids and Transportation of Solids in Suspension.** Alexey J. Stepanoff. Wiley, New York, 1969. x + 198 pp., illus. \$9.95. Materials Handling and Packaging Series.

**Gum Technology in the Food Industry.** Martin Glicksman. Academic Press, New York, 1969. xvi + 592 pp., illus. \$27.50. Food Science and Technology, vol. 8.

**Histology.** Thomas S. Leeson and C. Roland Leeson. Saunders, Philadelphia, ed. 2, 1970. xii + 532 pp., illus. \$11. Two supplementary filmstrips, \$15.

**History and Human Survival.** Essays on the Young and Old, Survivors and the Dead, Peace and War, and on Contemporary Psychohistory. Robert Jay Lifton. Random House, New York, 1970. x + 406 pp. \$8.95.

**The Honest Politician's Guide to Crime Control.** Norval Morris and Gordon Hawkins. University of Chicago Press, Chicago, 1970. xii + 276 pp. \$5.95.

**In Quest of the Unseen.** B. J. F. Laubacher. Vantage, New York, 1969. 240 pp. \$4.50.

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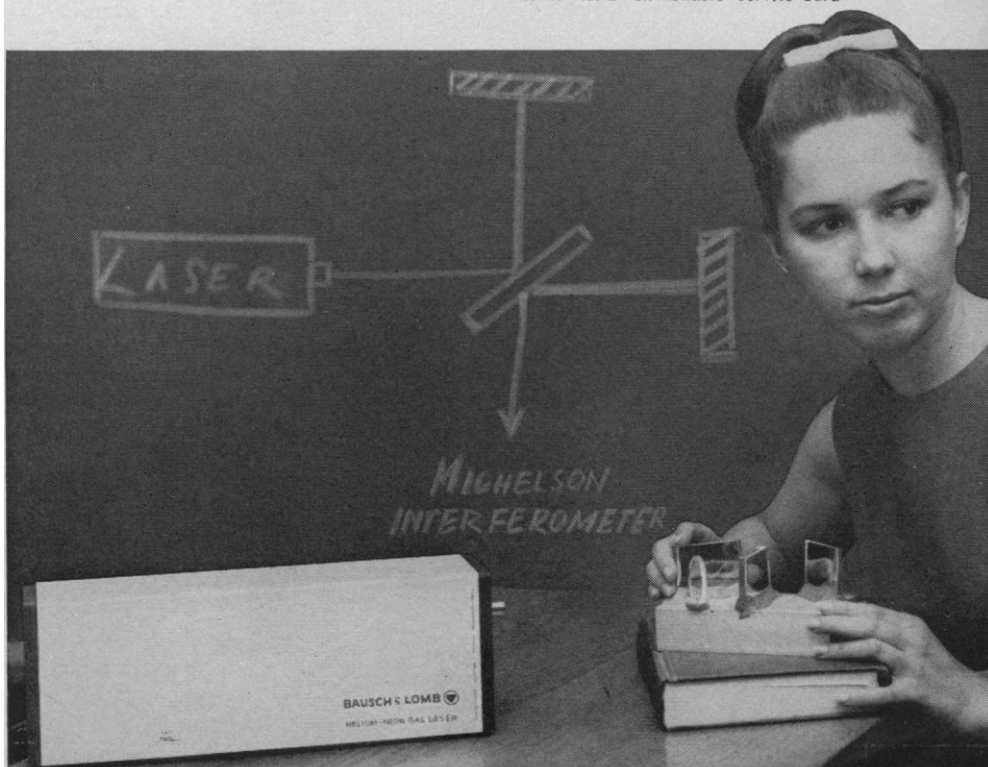
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**An Inquiry Concerning Growth, Disease and Ageing.** Philip R. J. Burch. University of Toronto Press, Buffalo, N.Y., 1969. viii + 214 pp., illus. \$8.75.

**Institutional Racism in America.** Louis L. Knowles and Kenneth Prewitt, Eds. Prentice-Hall, Englewood Cliffs, N.J., 1969. xii + 180 pp. Cloth, \$5.95; paper, \$1.95.

**Integral Equation Methods.** C. D. Green. Barnes and Noble, New York, 1969. viii + 244 pp. \$15. Applications of Mathematics Series.

**International Review of Experimental Pathology.** Vol. 8. G. W. Richter and M. A. Epstein, Eds. Academic Press, New York, 1969. x + 294 pp., illus. \$17.50.

**Introduction to Chemical Thermodynamics.** Reuben E. Wood. Appleton-Century-Crofts, New York, 1970. x + 246 pp., illus. \$9.95.

**Introduction to Differential Equations.** William E. Boyce and Richard C. DiPrima. Wiley, New York, 1970. xvi + 320 pp., illus. \$7.50.

**Ion-Selective Electrodes.** Proceedings of a symposium, Gaithersburg, Md., January 1969. Richard A. Durst, Ed. National Bureau of Standards, Washington, D.C., 1969 (available from the Superintendent of Documents, Washington, D.C.). xxii + 458 pp., illus. \$3.50. NBS Special Publication No. 314.

**Kangaroos.** H. J. Frith and J. H. Calaby. Hurst, London; Humanities Press, New York, 1969. xvi + 212 pp. + plates. \$16.

**Law in Culture and Society.** An international Wenner-Gren conference, Gloggnitz, Austria, August 1966. Laura Nader, Ed. Aldine, Chicago, 1969. x + 454 pp., illus. \$10.75.

**Lipids.** John M. Lowenstein, Ed. Academic Press, New York, 1969. xx + 772 pp., illus. \$29.50. Methods in Enzymology, vol. 14.

**Lysosomes in Biology and Pathology.** J. T. Dingle and Honor B. Fell, Eds. North-Holland, Amsterdam; Interscience (Wiley), New York, 1969. Vol. 1 (xxiv + 544 pp., illus. \$31); vol. 2 (xxiv + 668 pp., illus. \$37). Frontiers of Biology, vols. 14A and 14B.

**Mass Transfer in Heterogeneous Catalysis.** Charles N. Satterfield. M.I.T. Press, Cambridge, Mass., 1970. xviii + 270 pp., illus. \$14.25.

**Methods for Learning Disorders.** Patricia I. Myers and Donald D. Hammill. Wiley, New York, 1969. xiv + 322 pp., illus. \$8.50.

**Missouri Oil and Gas Wells of Record, 1860-1969.** Kurt F. Leighner and Richard M. Irwin. Missouri Division of Geological Survey and Water Resources, Rolla, 1969. Five maps, in folder. \$1.

**Molecular Complexes.** A Lecture and Reprint Volume. Robert S. Mulliken and Willis B. Person. Wiley-Interscience, New York, 1969. xviii + 510 pp., illus. \$19.50.

**Numbers and Units for Physics.** Robert A. Carman. Wiley, New York, 1969. xviii + 222 pp. Cloth, \$6.95; paper, \$4.95.

**Optimization.** A symposium. Keele England, March 1968. R. Fletcher, Ed. Academic Press, New York, 1969. xviii + 354 pp., illus. \$16.

**Organic Chemistry of Secondary Plant Metabolism.** T. A. Geissman and D. H. G.

Crout. Freeman, Cooper, San Francisco, 1969. xii + 596 pp., illus. \$14.50.

**Organic Syntheses.** An Annual Publication of Satisfactory Methods for the Preparation of Organic Chemicals. Vol. 49. Kenneth B. Wiberg, Ed. Wiley, New York, 1969. xii + 162 pp., illus. \$7.95.

**Palynology of the Eddleman Coal (Pennsylvanian) of North-Central Texas.** J. Fred Stone. Bureau of Economic Geology, University of Texas, Austin, 1969. ii + 58 pp., illus. + charts. Paper, \$1.50. Report of Investigations, No. 64.

**Parasitic Protozoa.** J. R. Baker. Hillary House, New York; Hutchinson University Library, London, 1969. 176 pp., illus. Cloth, \$5; paper, \$2. Biological Sciences.

**Physics in My Generation.** Max Born. Springer-Verlag, New York, ed. 2, 1969. viii + 172 pp., illus. Paper, \$3.80. Heidelberg Science Library.

**Plant Structure and Development.** A Pictorial and Physiological Approach. T. P. O'Brien and Margaret E. McCully. Macmillan, New York; Collier-Macmillan, London, 1969. x + 118 pp., illus. Paper, \$5.95.

**Protest, Reform, and Revolt.** A Reader in Social Movements. Joseph R. Gusfield, Ed. Wiley, New York, 1970. xvi + 576 pp. \$9.95.

**The Psychology of Learning and Motivation.** Advances in Research and Theory. Vol. 3. Gordon H. Bower and Janet Taylor Spence, Eds. Academic Press, New York, 1969. xvi + 400 pp., illus. \$14.

**Satelliten erkunden Erde und Mond.** Homer E. Newell, Mikhail G. Kroshkin, and Wolfgang Priester, Eds. Umschau Verlag, Frankfurt, 1969. 136 pp., illus. DM 39. Umschau in Wissenschaft und Technik.

**Seeds of Change.** The Green Revolution and Development in the 1970's. Lester R. Brown. Published for the Overseas Development Council by Praeger, New York, 1970. xvi + 208 pp., illus. Cloth, \$6.95; paper, \$2.50.

**Solvent Extraction Research.** Proceedings of an international conference, Jerusalem, September 1968. A. S. Kertes and Y. Marcus, Eds. Wiley-Interscience, New York, 1969. xx + 442 pp., illus. \$29.50.

**The Structure and Function of Nervous Tissue.** Vol. 3, Biochemistry and Disease. Geoffrey H. Bourne, Ed. Academic Press, New York, 1969. xiv + 650 pp., illus. \$33.

**Surface Active Ethylene Oxide Adducts.** N. Schönfeldt. Translation based on the German edition (Stuttgart, 1959). Pergamon, New York, 1969. xxiv + 940 pp., illus. \$32.

**Synthetic Aperture Radar Systems.** Theory and Design. Robert O. Harger. Academic Press, New York, 1970. xiv + 242 pp., illus. \$13.50. Electrical Science Series.

**Topics in Dynamics.** Vol. 1, Flows. Edward Nelson. Princeton University Press, Princeton, N.J.; University of Tokyo Press, Tokyo, 1969. iv + 122 pp. Paper, \$3. Mathematical Notes.

**The Velocity of Light and Radio Waves.** K. D. Froome and L. Essen. Academic Press, New York, 1969. viii + 160 pp., illus. \$5.

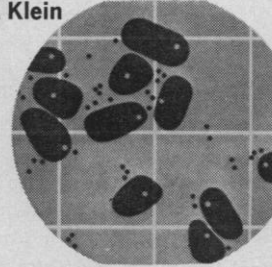
**X-Ray Diffraction Methods in Polymer Science.** Leroy E. Alexander. Wiley-Interscience, New York, 1969. xviii + 590 pp., illus. \$27.95. Wiley Series on the Science and Technology of Materials.

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