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Zeeman effect is barely mentioned (p. 150) in connection with the Pauli Exclusion Principle, whereas its experimental observation and quantum interpretation leads directly to the identification of spectral terms and electron configurations of atoms and ions. Incidentally, atomic energy levels are sometimes confused with spectral terms (p. 144) and spectral terms that run to a limit are called a "sequence" instead of a spectral series. Also the index should include important items like Landé interval rule, 149, Paschen-Back effect, 151, Rydberg constant, 96, Zeeman effect, 150, etc. etc.

At the end of most chapters, one or two other books are listed as references; the majority are dated 1913 to 1935, and many could be replaced by newer publications. This volume contains many simple diagrams but only five half-tone plates, restricted to mass spectra, optical spectra, x-ray diffraction patterns, and particle tracks in expansion chambers. The book might be more attractive to modern students if it contained more pictures. The above comments are intended to be constructive; in the opinion of the reviewer there are really no serious defects in the Fourth Edition of Tolansky's *Introduction to Atomic Physics*, that excels in lucid descriptions of instruments, experiments, and principles which are continuing to develop a better understanding and control of the physical world.

Books Received

MIND AND THE WORLD-ORDER: Outline of a Theory of Knowledge. By Clarence Irving Lewis. 446 pp. Dover Publications, Inc., New York, 1956. Paperbound \$1.95.

METALLURGY AND FUELS, Vol. 1. Series 5 of Progress in Nuclear Energy. Edited by H. M. Finnieston and J. P. Howe. 805 pp. McGraw-Hill Book Co., Inc., New York, 1956. \$21.00.

NUCLEAR METALLURGY, Vol. 3 (IMD Symp., Cleveland, Ohio, Oct. 1956). By George H. Vineyard, Donald E. Thomas, Douglas S. Billington. 54 pp. American Inst. of Mining, Metallurgical, and Petroleum Engineers, New York, 1956. Paperbound \$3.75.

ELECTRONIC COMPUTERS: Principles and Applications. Edited by T. E. Ivall. 167 pp. (Iiffe, England) Philosophical Library, New York, 1956. \$10.00.

FATIGUE IN AIRCRAFT STRUCTURES: Proceedings of Internat'l Conf. (Columbia U., Jan. 1956). Edited by Alfred M. Freudenthal. 456 pp. Academic Press Inc., New York, 1956. \$12.00.

MODERN METHODS OF MICROSCOPY (Reprinted papers from *Research*). Edited by A. E. J. Vickers. 114 pp. (Butterworths, England) Interscience Publishers, Inc., New York, 1956. Paperbound \$3.50.

LOW TEMPERATURE PHYSICS 11. Vol. 15 of Handbuch der Physik. Edited by S. Flügge. 477 pp. Springer-Verlag, Berlin, Germany, 1956. DM 112.00 (if part of series DM 89.60).

THE LEIBNIZ-CLARKE CORRESPONDENCE. Edited by H. G. Alexander. 200 pp. Philosophical Library, Inc., New York, 1956. \$4.75.

PHYSICS. By John S. Marshall and Elton R. Pounder. 906 pp. The Macmillan Co., New York, 1957. \$8.50.

ANNUAL REVIEW OF NUCLEAR SCIENCE, Vol. 6. Edited by J. G. Beckerley, M. D. Kamen, L. I. Schiff. 471 pp. Annual Reviews, Inc., Palo Alto, Calif., 1956. \$7.00.

GAS DYNAMICS. Vol. 1 of Applied Mathematics and Mechanics. By Klaus Oswatitsch. English version by Gustav Kuerti. 610 pp. Academic Press Inc., New York, 1956. \$4.00.

ARCS IN INERT ATMOSPHERES AND VACUUM. Papers of Electrochemical Soc. Symp. (San Francisco, Calif., Apr. 1956). 188 pp. John Wiley & Sons, Inc., New York, 1956. \$7.50.

SOLID STATE PHYSICS: Advances in Research and Applications, Vol. 3. Edited by Frederick Seitz and David Turnbull. 588 pp. Academic Press Inc., New York, 1956. \$12.00.

PHYSICAL CHEMICAL TECHNIQUES. Vol. 2 of Physical Techniques in Biological Research. Edited by Gerald Oster and Arthur W. Pollister. 502 pp. Academic Press Inc., New York, 1956. \$12.80.

PHOTOGRAPHIC SENSITIVITY, Vol. 1. Proceedings of Symp. (Lake Hakone, Japan, Sept. 1953). Edited by Shin Fujisawa. 147 pp. Maruzen Co., Ltd., Tokyo, Japan, 1956. \$4.00.

INTRODUCTORY ELECTRICAL ENGINEERING. By George F. Corcoran and Henry R. Reed. 527 pp. John Wiley & Sons, Inc., New York, 1957. \$7.95.

THE MILKY WAY (3rd Revised Edition). By Bart J. Bok and Priscilla F. Bok. 269 pp. Harvard U. Press, Cambridge, Mass., 1957. \$5.50.

APPLIED ANALYSIS. By Cornelius Lanczos. 539 pp. Prentice Hall, Inc., Englewood Cliffs, N. J., 1956. \$9.00.

ON HUMAN COMMUNICATION: A Review, a Survey, and a Criticism. By Colin Cherry. 333 pp. The Technology Press of Mass. Inst. of Technology & John Wiley & Sons, Inc., New York, 1957. \$6.75.

ELEMENTS OF PARTIAL DIFFERENTIAL EQUATIONS. By Ian N. Sneddon. 327 pp. McGraw-Hill Book Co., Inc., New York, 1957. \$7.50.

RELAXATION METHODS IN THEORETICAL PHYSICS. Vol. 2. By R. V. Southwell. 522 pp. Oxford U. Press, New York, 1956. \$8.80.

METHUEN MONOGRAPHS: *Frequency Modulation*. By L. B. Arguimbau and R. D. Stuart; 96 pp.; \$2.00. *Elasticity, Fracture and Flow: with Engineering and Geological Applications*. By J. C. Jaeger; 152 pp.; \$2.50. *Order-Disorder Phenomena*. By E. W. Elcock; 166 pp.; \$2.50. *pH Measurements: Their Theory and Practice*. By Victor Gold; 125 pp.; \$2.25. *Chain Reactions: An Introduction*. By F. S. Dainton; 183 pp.; \$2.90. (Methuen, England) John Wiley & Sons, Inc., New York, 1956.

PHYSIKERTAGUNG, WIESBADEN. Hauptvorträge der Jahrestagung 1955 des Verbandes Deutscher Physikalischer Gesellschaften. Vol. 3. Edited by E. Brüche, G. Schubert, L. Waldmann. 150 pp. Physik Verlag, Mosbach, Baden, Germany, 1956. (Also: *Physikertagung, Hamburg, 1954*, Vol. 2, edited by E. Bagge, E. Brüche, 205 pp.; and *Physikertagung, Innsbruck, 1953*, Vol. 1, edited by H. Auer, E. Brüche, R. Steinmaurer, 138 pp.)

MODERN INTRODUCTORY PHYSICS (2nd Revised Edition). By Ira M. Freeman. 497 pp. McGraw-Hill Book Co., New York, 1957. \$6.00.

ATOMS AND THE UNIVERSE. An Account of Modern Views on the Structure of Matter and the Universe. By G. O. Jones, J. Rotblat, G. J. Whitrow. 254 pp. Charles Scribner's Sons, New York, 1957. \$4.50.



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