The abundant exercises at the end of each chapter give the students a rather thorough review of high school algebra and provide practice in the application of the concepts learned in the text. Owing to the limited mathematical requirement and the number of subjects discussed, the coverage of the material is of necessity superficial. In addition, many of the pages used for elementary proofs of theorems and derivation of numerous formulae might have been better used for a more thorough, and in some cases more careful, discussion of the subjects presented (for example, confidence intervals).

If one wishes an introductory text in probability and statistics which includes many elementary proofs and is based only on high school algebra, then this book will do nicely. If elementary proofs are not desired, or if students have better preparation, better texts are available.

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Academic Paperback Series

Mössbauer Effect: Principles and Applications. Gunther K. Wertheim. Academic Press, New York, 1964. viii + 116 pp. Illus. Paper, $2.45; cloth, $5.50.

Wertheim's concise treatment of the Mössbauer effect, its impact on solid-state physics and metal inorganic and metallo-organic chemistry, and its applications to relativity is the fifth volume in the Academic Paperback Series on science. The ten chapters are "Introduction," "Instrumentation," "Relativity and the Mössbauer effect," "Atomic motion," "Isomer shift," "Quadrupole coupling," "Magnetic hyperfine structure," "The magnetism of metals and alloys," "Chemical applications," and "Line width and line shape." These chapters span most of the important applications of the Mössbauer effect and provide a well worked out introduction to the subject for the nonspecialist.

Wertheim has wisely chosen to concentrate on those applications of the Mössbauer effect that, to date, have had the greatest scientific significance. These include, for example, studies of magnetic substances and some applications to metal chelate chemistry. His coverage is thorough, and the volume is well referenced. The possession of this volume, one or two more detailed review articles, and copies of the proceedings of the three Mössbauer conferences would permit the reader to acquire a thorough knowledge of this young field. In a few instances, the material should have been more thoroughly treated: for example, an account of Mössbauer resonance scattering should have been given; the problems associated with detection of Mössbauer gamma rays, particularly those isotopes (other than iron-57 and strontium-119) where there is interference from atomic x-rays, should have been treated more fully; and the manifold difficulties of interpreting Mössbauer isomer shift and quadrupole splitting data owing to uncertainties of calculation of the Sternheimer antishielding correction should have been considered.

Wertheim is to be congratulated for having written a first-class volume on this new subject. His book can be highly recommended to students of physics, biology, and chemistry who wish to be informed about the application of this new resonance technique to those fields.

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New Books

Biological and Medical Sciences

Advances in Food Research. vol. 13. C. O. Chichester, E. M. Mrak, and G. F. Stewart, Eds. Academic Press, New York, 1964. 409 pp. Illus. $14.50. Five papers: "Recent advances in the freeze-drying of food products" by Robert F. Burke and Robert V. Decareau; "Etiological status and associated studies of pale, soft, exudative porcine musculature" by Ernest J. Briskey; "Astringency of fruits and fruit products in relation to phenolic content" by M. A. Joslyn and Judith L. Goldstein; "Fundamentals of low-temperature food preservation" by O. Fennema and W. D. Powrie; and "Minimum growth temperatures for food-poisoning, fecal-indicator, and psychrophilic microorganisms" by H. David Michener and R. Paul Elliott.

Advances in Marine Biology. vol. 2. F. S. Russell, Ed. Academic Press, New York, 1964. 284 pp. Illus. $9.50. Four papers: "The artificial propagation of marine fish" by J. E. Shelbourne; "The blood groups of marine animals" by John E. Cushing; "The present status of some aspects of marine microbiology" by Robina B. Scholes and J. M. Shewan; and "Methods of sampling the benthos" by N. A. Holme.

Atlas of North American Astragalus. pt. 1, *The Phacoid and Homaloboid Astragali* (600 pp.); pt. 2, *The Cercidothrix, Hypoglottis, Piptoloboid, Trimeniaeus, and Orophaca Astragali* (592 pp.). Rupert C. Barneby. New York Botanical Garden, Bronx, N.Y., 1964 (available from Stechert-Hafner, New York). Illus. Paper, $30; cloth, $35 set.

Biochemistry for Medical Students. William Veale Thorpe, H. Geoffrey Bray, and Sybil P. James. Little, Brown, Boston, ed. 8, 1964. 573 pp. Illus. $10.

Biochemistry Laboratory Manual. F. M. Strong. Brown, Dubuque, Iowa, 1965. 182 pp. Illus. Paper, $3.75.

British Pharmacopoeia 1963, Addendum 1964. Published under the direction of the General Medical Council, and by Pharmaceutical Press, London, 1964. 109 pp. Illus. £2 5s. 3d.

Continuous Cultivation of Microorganisms. Proceedings of the second symposium (Prague), 1962. I. Málek, K. Beran, and J. Hospodka, Eds. Czechoslovak Acad. Sciences, Prague; Academic Press, New York, 1964. 391 pp. Illus. $14.50. Thirty-eight papers.

Rice Genetics and Cytogenetics. Proceedings of a symposium (Los Baños, Philippines), February 1963. Elsevier, New York, 1964. 290 pp. Illus. $14.50. Twenty-six papers presented at the symposium which was sponsored by the International Rice Research Institute.

Structure and Function in Biological Membranes. vol. 1. J. Lee Kavanau. Holden-Day, San Francisco, 1965. 335 pp. Illus. $10.95.

The Structure and Properties of Biomolecules and Biological Systems. J. Duchesne, Ed. Interscience (Wiley), New York, 1964. 766 pp. Illus. $27.50. Eighteen papers contributed by R. Braams, P. S. Braterman, R. C. Davies, Pierre Douzou, Anders Ehrenberg, D. D. Eley, J. L. Fernández-Alonso, T. A. Hoffman, John Jagger, Oleg Jardetzky, David R. Kearns, Masao Kotani, Yoshimasa Kyogoku, J. Ladik, J. Lecomte, Robert B. Leslie, Claude S. Nicolau, Ernest C. Pollard, Charles Sadron, G. Schoffa, Takehiko Shimanouchi, Bernard Smaller, Albert Szent-Györgyi, Masamichi Tsubio, G. Van Herpen, Charles Walter, and R. J. P. Williams.

Vascular Roentgenology. Arteriography, phlebography, lymphography. Robert A. Schobinger and Francis F. Ruzicka, Jr., Eds. Macmillan, New York, 1964. 759 pp. Illus. $35. Chapters contributed by 93 authors and concerned primarily with methods of introducing contrast media directly into the lumen of arteries, veins, and lymphatic channels.

Veterinary Medicine and Human Health. Calvin W. Schwabe. Williams and Wilkins, Baltimore, 1964. 543 pp. Illus. $16.

Wildlife Biology. Raymond F. Dasmann. Wiley, New York, 1964. 239 pp. Illus. $5.95.

Wissenschaftliche Arbeiten. vol. 13, pt. 2. Fakultät für Wien- und Gartenbau, Land Wirtschaftliche Hochschule "Wassil Kolarow." Staatlicher Verlag "Christo G. Danow," Plovdiv, Bulgaria, 1964. 323 pp. Illus.