Chapter 14 by H. C. Brown, D. H. McDaniel, and O. Häfliger constitutes, in my opinion, one of the book's highlights. The chapter contains perhaps the most complete compilation of acid and base dissociation constants in the literature, and the writers skillfully employ these data in their presentation of contemporary stereoelectronic theories. The major defect of the chapter is its slighting of entropy effects, which are only briefly mentioned. The use of reaction kinetics in structural problems is discussed by Braude and L. M. Jackman in Chapter 15. I believe it would have been improved by a more thorough examination of the problem of molecularity and kinetic order of reaction.

The final chapter is by C. A. Coulson and deserves special praise for its conciseness and clarity. Its subject is the application of wave mechanics to structural problems: specifically it treats the topics of aromacity and bond order in a descriptive way from the viewpoints of both the valence bond and the molecular orbital methods of approximation. The ideas put forward here should stimulate research in a number of new directions.

With few exceptions, the book succeeds admirably in its objectives. A compilation of this sort always presents serious problems from an editorial point of view, and in general they have been adequately solved by the editors. It would have been better, however, to have chosen either the symbol F or G for the free energy function rather than to use both symbols for the same function in different chapters of the book (pp. 257, 667). With two exceptions (p. 206, last paragraph; p. 224, line 4), the proof has been carefully read. Only one typographic error has come to my attention (naphthalene in Fig. 4.5).

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Magnetic Materials in the Electrical Industry. P. R. Bardell. Philosophical Library, New York, 1955. xiv + 288 pp. Illus. + plates. $10.

This book is an introduction to the design of apparatus that depends primarily on the magnetic properties of materials. The presentation naturally calls for a careful description of the magnetic materials available, and the first half of the book is devoted to this subject, including a chapter on the theory of magnetic behavior.

As far as I am aware, this is the only book that gives materials and design equal amounts of space in exposition, and for this reason it is an important forward step in bringing together two essentially related subjects. It thus appears to be well adapted for use as an introductory textbook. As is indicated by the size of the book, the amount of material is limited, and other publications should be consulted for information regarding both materials and design. A larger bibliography would have been useful for this purpose.

The applications that are discussed include power transformers and chokes, direct-current machines, relays, communication transformers and cores, magnetic recording, magnetic amplifiers, electromagnetic and magnetostrictive transducers, and a number of instruments, including magnetrons, that depend on the use of permanent magnets. The uses of magnetic materials in the relatively new fields of the storage of information and of microwave transmission are not covered.

The centimeter-gram-second system of units is used throughout. It is difficult to see how this kind of book could approach its present usefulness if the millimeter-kilogram-second system had been used.

Although the book is written primarily for English students, it is equally well adapted to Americans. The style is simple and clear. References to articles and books for further reading could well have been enlarged, and a longer index would have been more useful. The number of illustrations, about 1.7 per page, is more than average and is a welcome aid in presentation. The price of $10 seems rather high for a book of under 300 pages.

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Books Reviewed in The Scientific Monthly, February

Augustine to Galileo, A. C. Crombie (Harvard Univ. Press). Reviewed by M. Brodbeck.

Science in Our Lives, R. Calder (Michigan State College Press; New American Library). Reviewed by P. Le Corbeiller.

Early American Science, Whitfield J. Bell, Jr. (Inst. of Early American History and Culture, Williamsburg, Va.). Reviewed by J. Oppenheimer.

Ethical Judgment, A. Edel (Free Press). Reviewed by S. C. Pepper.

Current Trends in Psychology and the Behavioral Sciences, J. T. Wilson, C. S. Ford, B. F. Skinner, G. Bergmann, F. A. Beach, F. Pribram (Univ. of Pittsburgh Press). Reviewed by R. W. Gerard.

Politics and Science, W. Esslinger (Philosophical Library). Reviewed by B. Glass.

Charles Darwin: a Great Life in Brief, R. Moore (Knopf). Reviewed by B. Glass.

How to Know the Fresh-Water Algae, G. W. Prescott; H. E. Jaques, Ed. (Brown, Dubuque, Iowa). Reviewed by W. R. Taylor.

Careers and Opportunities in Science, P. Pollack (Dutton). Reviewed by H. A. Meyerhoff.

Bird Navigation, G. V. T. Matthews (Cambridge Univ. Press). Reviewed by J. G. Pratt.

Psychoanalysis and the Education of the Child, G. H. J. Pearson (Norton). Reviewed by P. S. Sears.

Introduction to Theoretical Organic Chemistry, P. H. Hermans (Elsevier). Reviewed by C. Walling.

Culture and Human Fertility, F. Lorimer (UNESCO, Paris; distr. by Columbia Univ. Press, New York). Reviewed by I. B. Taeuber.

The Story of Medicine, K. Walker (Oxford Univ. Press). Reviewed by I. Galdston.

Highway to the North, F. Illingworth (Philosophical Library). Reviewed by F. Rainey.

Poissons. IV. Téléostéens Acanthoptérygiens, M. Poll (Institut Royal des Sciences Naturelles de Belgique). Reviewed by J. W. Hedgpeth.

Africa Today, G. G. Hames, Ed. (Johns Hopkins Press). Reviewed by H. T. Straw.

New Books

Men, Rockets and Space Rats. Lloyd Mallan. Messner, New York, 1955. 335 pp. $5.95.

Travels and Traditions of Waterfowl. H. Albert Hochbaum. Univ. of Minnesota Press, Minneapolis, 1955. 301 pp. $5.

You and the Atom. Gerald Wendt. Whiteside; Morrow, New York, 1956. 96 pp. $1.95.

Alloy Series in Physical Metallurgy. Morton C. Smith. Harper, New York, 1956. 338 pp.

Science in Action. vol. 1, *TV Library.* Benjamin Draper, Ed. California Acad. of Sciences, San Francisco, and Merlin Press, New York, 1956. 157 pp. $3.50.

Chemical Engineering. vol. 2, *Unit Operations.* J. M. Coulson and J. F. Richardson. McGraw-Hill, New York; Pergamon, London, 1955. 975 pp. $9.

Fundamentals of Electroacoustics. F. A. Fischer. Trans. by Stanley Ehrlich and Fritz Pordes. Interscience, New York–London, 1955. 186 pp. $6.

Yoga Dictionary. Ernest Wood. Philosophical Library, New York, 1956. 178 pp. $3.75.

Combustion Processes. vol. II, *High Speed Aerodynamics and Jet Propulsion.* B. Lewis, R. N. Pease, and H. S. Taylor, Eds. Princeton Univ. Press, Princeton, N.J., 1956. 662 pp. $12.50.

Quantitative Bacterial Physiology Laboratory Experiments. Michael J. Pelczar, Jr., P. Arne Hansen, and Walter A. Konetzka. Burgess, Minneapolis 15, 1955. 150 pp. $2.75.

Proceedings of the International Conference on the Peaceful Uses of Atomic Energy. Held in Geneva, 8–20 August 1955. vol. 3, *Power Reactors.* United Nations, New York, 1955. 389 pp. $7.50.