with electronics is needed even in Chapters 1, 2, 3, and 8—the chapters of most general interest. Mechanical and electromechanical analog computers are not considered. Chapter 1 begins with a discussion of analog computers as contrasted with digital computers. A more thorough discussion would have given a better perspective for the study of d-c analog computers and also would have presented digital machines in a more favorable light.

The presentation as a whole is lucid and thorough. The determination of scale factors, for example, is discussed in complete detail. Such topics as corrections for potentiometer loading, d-c amplifier drift, and the frequency limitations of present servomultipliers are competently treated. The use of repetitive computers is pointed out as a particularly fertile field. In a few cases, perhaps, too many words are used in explanation. The many illustrations add measurably to the value of this book.

The authors have contributed a number of articles to the literature of analog computers. Their experience and thorough acquaintance in the field of analog computers is apparent throughout, and the book is a necessity for any computer installation that has or may obtain an analog computer.

W. C. SANGREN

Mathematics Panel
Oak Ridge National Laboratory

Modern Chemical Processes, Vol. II. A series of articles describing chemical manufacturing plants by the editors of *Industrial and Engineering Chemistry* in conjunction with the technical staffs of the cooperating organizations. New York: Reinhold, 1952. 299 pp. Illus. $5.00.

This publication is the second volume of a set composed of "a series of articles describing chemical manufacturing plants," reprinted from *Industrial and Engineering Chemistry*. Twenty-four modern plants are described in detail as to history and chemistry of processing, equipment used, processing steps employed, economics, and production figures.

The articles are well written, definitely of value to the chemical engineer, and should be of value and interest to technical people in other fields of engineering. The companies that cooperated in preparing the reports are to be commended for their contributions to the existing literature by disclosing many intimate details of their plants and their manufacturing processes.

In some instances, the processes described are unique with the company that cooperated in the report. Some processes, however, fall in a competitive field, for which there is little or no indication as to why the particular company was selected; nor are there any step-by-step comparisons which would have added greatly to the value of the report. Printing, binding, and illustrations are good.

C. W. SELHEIMER

Department of Chemical Engineering
Illinois Institute of Technology

Scientific Book Register

Symposium on Radiobiology: The Basic Aspects of Radiation Effects on Living Systems. Held at Oberlin College, June 14–18, 1950. Sponsored by National Research Council. James J. Nickson, Ed. New York: Wiley; London: Chapman & Hall, 1952. 465 pp. $7.50.

Mechanics of the Gyroscope: The Dynamics of Rotation. 2nd ed. Richard F. Deimel. New York: Dover, 1952. 192 pp. $3.00; paperbound, $1.60.

The Treatment of Injuries to the Nervous System. Donald Munro. Philadelphia–London: Saunders, 1952. 284 pp. Illus. $7.50.

Man and the Biological World. 2nd ed. J. Speed Rogers, Theodore H. Hubbell, and C. Francis Byers. New York–London: McGraw-Hill, 1952. 690 pp. Illus. $5.75.

Phosphoric Acid, Phosphates and Phosphatic Fertilizers. 2nd ed. Wm. H. Waggaman. New York: Reinhold, 1952. 683 pp. Illus. $15.00.

Polarized Light in Metallography. G. K. T. Conn and F. J. Bradshaw, Eds. New York: Academic Press; London: Butterworths, 1952. 130 pp. $3.80.

Year's Best Science Fiction Novels: 1952. Everett F. Bleiler and T. E. Dikty, Eds. New York: Frederick Fell, 1952. 351 pp. $3.50.

Collected Papers of The Mayo Clinic and The Mayo Foundation, 1951, Vol. XLIII. Richard M. Hewitt *et al.*, Eds. Philadelphia–London: Saunders, 1952. 833 pp. $12.00.

Philosophic Problems of Nuclear Science. Werner Heisenberg; trans. from *Wandlungen in den Grundlagen der Naturwissenschaft* by F. C. Hayes. New York: Pantheon, 1952. 126 pp. $2.75.

A Textbook of Quantitative Analysis. Andrew Patterson, Jr., and Henry C. Thomas. New York: Holt, 1952. 500 pp. $4.25.

The Science of Biology. 4th ed. William C. Beaver. St. Louis: Mosby, 1952. 895 pp. Illus. $5.85.

Childhood Experience and Personal Destiny: A Psychoanalytic Theory of Neurosis. William V. Silverberg. New York: Springer Pub., 1952. 289 pp. $4.50.

Quantitative Chemical Analysis: An Introduction to the Science and Practice of Chemical Measurement. Charles W. Foulk, Harvey V. Moyer, and William M. MacNevin. New York–London: McGraw-Hill, 1952. 484 pp. $5.00.

Opticks or a Treatise of the Reflections, Refractions, Inflections & Colours of Light. Based on 4th ed., London, 1730. Isaac Newton. New York: Dover, 1952. 406 pp. and introductory material. $4.00; paperbound, $1.90.

Ferns of Michigan. Cecil Billington. Bloomfield Hills: Cranbrook Institute of Science, 1952. 240 pp. Illus. $5.00.

Glycols. American Chemical Society Monograph 114. George O. Curme, Jr., and Franklin Johnston, Eds. New York: Reinhold, 1952. 389 pp. $12.00.

Genes and Mutations. Cold Spring Harbor Symposia on Quantitative Biology, Vol. XVI. Cold Spring Harbor, L. I., N. Y.: Biological Laboratory, 1951. 521 pp. $9.00.

A Source Book in Chemistry, 1400–1900. Henry M. Leicester and Herbert S. Klickstein. New York–London: McGraw-Hill, 1952. 554 pp. Illus. $7.50.

Polarography: Theoretical Principles, Instrumentation and Technique, Vol. I. 2nd ed. I. M. Kolthoff and James J. Lingane. New York–London: Interscience, 1952. 420 pp. $9.00.