the biochemist. The author of this book has tried to correct this situation by reviewing known methods of radioactive gas analysis that are of interest to biochemists. The major subjects covered include vacuum techniques, gas-phase assay of carbon-14, combustion of labeled compounds, and assay procedures for deuterium and tritium. A short section on the synthesis of tritium-labeled compounds is interesting, but it is not indicated by the title.

In several respects the title of this book is misleading. Generalized isotopic gas-analysis methods are not discussed in detail but rather the preparation of samples for isotopic gas analysis. The gas-analysis methods that are described are mostly for radioactive isotopes. No discussion is presented on mass spectrometer or infrared isotopic gas analysis. The book is primarily a laboratory manual devoted to the gas-handling techniques in use in the author's laboratory, and no effort has been made to give a systematic review of the literature on vacuum and gas-handling techniques or on isotopic analysis methods.

The radioactive gas-assay procedures for carbon-14 that are discussed in some detail include Geiger counting of CO_2 using CS_2, proportional counting of CO_2 and acetylene, and ionization chamber assay. The section on the Brown-Miller method for Geiger counting of CO_2–CS_2 mixtures is very interesting. This excellent procedure is not as widely used in the United States as it might be, and perhaps this book may help.

A considerable section of the book is used to describe procedures for the combustion of labeled compounds either by the Van Slyke oxidation mixture or by using various dry combustion methods. This is a very critical part of isotopic gas analysis, and such a review is needed.

This book is carefully written and well constructed and contains very few errors. It is a useful laboratory reference for the biochemist working with isotopes, particularly if he uses gas-assay procedures for carbon-14 or tritium.

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Transactions of the Symposium on Fluid Mechanics and Computing. Sponsored by the American Mathematical Society and Office of Ordnance Research, U.S. Army. Garrett Birkhoff, K. O. Friedrichs, and T. E. Sterne, Eds. Interscience, New York–London, 1954. 243 pp. Illus. $5.

This book, a reprint of 14 papers published in *Communications on Pure and Applied Mathematics*, volume VII (1954), constitutes the proceedings of the first Symposium on Applied Mathematics. The papers are concerned with modern problems of fluid mechanics (shock waves, turbulence, boundary layers, transonic flow, compressible fluid flow), and the associated mathematical problems. These last include not only analytic treatments of the complicated partial differential equations encountered in treatments of the foregoing subjects and related matters but also discussions of numerical methods of solution, including the use of large-scale computers. One paper is experimental (measurement of spherical shock waves). The contributors include many outstanding names in the fields mentioned. The treatments are authoritative and advanced, and they will interest specialists in fluid mechanics and applied mathematics.

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New Books

Marine Shells of the Western Coast of Florida. With revisions and additions to Louise M. Perry's *Marine Shells of the Southwest Coast of Florida.* Louise M. Perry and Jeanne S. Schwengel. Paleontological Res. Institution, Ithaca, N. Y., 1955. 318 pp. Paper, $6; cloth, $7.

Practical Horticulture. James S. Shoemaker and Benjamin J. E. Teskey. Wiley, New York; Chapman & Hall, London, 1955. 374 pp. $4.20.

Management of Addictions. Edward Podolsky, Ed. Philosophical Library, New York, 1955. 413 pp. $7.50.

Physical Chemistry. Farrington Daniels and Robert A. Alberty. Wiley, New York; Chapman & Hall, London, 1955. 671 pp. $6.50.

The Biology of the Amphibia (unabridged republication of ed. 1). G. Kingsley Noble. Dover, New York, 1955. 577 pp. $4.95.

Optical Properties of Thin Solid Films. O. S. Heavens. Academic Press, New York; Butterworths, London, 1955. 261 pp. $6.80.

A Manual of Medical Virology. S. S. Kalter and J. E. Prier. Burgess, Minneapolis, 1955. 127 pp. $3.50.

Astronomy. A textbook for university and college students. Robert H. Baker. Van Nostrand, New York–London, ed. 6, 1955. 528 pp. $5.50.

Neutron Diffraction. G. E. Bacon. Oxford Univ. Press, New York–London, 1955. 299 pp. $5.60.

Organic Solvents: Physical Properties and Methods of Purification. vol. VII, *Technique of Organic Chemistry.* Arnold Weissberger, Ed. Interscience, New York–London, ed. 2, 1955. 552 pp. $8.50.

Baba of Karo. A woman of the Moslem Hausa. Mary Smith. Philosophical Library, New York, 1955. 299 pp. $7.50.

American Agriculture: Its Structure and Place in the Economy. Ronald L. Mighell. Wiley, New York; Chapman & Hall, London, 1955. 187 pp. $5.

Target: Earth. The role of large meteors in earth science. Allan O. Kelly and Frank Dachille. Target Earth, Box 335, Carlsbad, Calif., 1953. 263 pp. $5.

Bacterial Toxins. W. E. Van Heyningen. Blackwell, Oxford, Eng.; Charles C. Thomas, Springfield, Ill., 1955. 133 pp. $3.50.

Methods of Quantitative Micro-Analysis. R. F. Milton and W. A. Waters, Eds. St Martin's Press, New York and Arnold, London, ed. 2, 1955. 742 pp. $15.

Quantitative Methods in Histology and Microscopic Histochemistry. Olavi Eranko, Karger, Basel, Switzerland; Little, Brown, Boston, 1955. 160 pp. F. 19.75.

Household Physics. A textbook for college students in home economics. Madalyn Avery. Macmillan, New York, ed. 3, 1955. 472 pp. $5.50.