States may experience some difficulty with the terminology used for some drugs, but the helpful synonym list should aid in this respect.

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Microwave Lenses. J. Brown. Wiley, New York; Methuen, London, 1953. 125 pp. Illus. + plates. $2.

The subject of this small book is a recent development in microwave technique. The introduction of so-called artificial dielectrics, dating back only a few years, opened new possibilities for designing microwave antenna. The properties of these structures, consisting of conducting elements of various shapes spaced according to some pattern, should be of general interest to a physicist. Such a reader might wish to find in the book more emphasis on this aspect.

The book is intended primarily for those interested in antenna design. The analyses involved are similar to those of geometrical optics. The first two chapters present general considerations and radiation patterns of microwave lenses. The different types of dielectrics are then treated in separate chapters, each beginning with an explanation of the properties of the dielectric followed by discussions of lens design. The use of lenses for wide-angle scanning is taken up in a separate chapter and also enters in the discussions of the last three chapters.

The material covered in the book is well organized. The presentation is clear and concisely covers the essentials of the subject.

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Hydrocarbons from Petroleum. ACS Monograph No. 121. Frederick D. Rossini, Beveridge J. Mair, and Anton J. Strieff. Reinhold, New York, 1953. 556 pp. Illus. + charts. $18.50.

This volume is the result of more than 300 man-years of work performed by the American Petroleum Institute Research Project 6 under the able direction of Frederick D. Rossini. The project was carried out with creative imagination. This document should be a part of every library in the world for its enormous amount of useful information, not alone from the standpoint of research, but also for industrial utility. It is the result of more than 25 years of continuous study that has given us for the first time an intimate and quantitive knowledge of individual hydrocarbons present in a number of crude oils.

The physical properties of the highly purified individual hydrocarbons isolated were analyzed through the very latest techniques available. The purification of these compounds was achieved through the use of a wide number of fractionation processes, including such techniques as low-pressure distillation, thermal diffusion in the gas phase, and electrophoresis. The details of mechanisms of operation and procedures for purification of the individual hydrocarbons are given.

This monumental tome covers not only the fractionation, analysis, isolation, purification, and properties of hydrocarbons but also investigations of sulfur, nitrogen, oxygen, and metallic compounds and fractions of crude oil such as gasoline, kerosene, gas oil, and lubricating oils. In addition, synthetic products, such as alkylates, codimers, and hydrocodimers, were also analyzed in detail with respect to the structure and properties of the individual compounds present.

Hydrocarbons from Petroleum is literally a bible on the subject, packed with information not available before.

The foreword states:

> Fundamental research under the sponsorship of the American Pertoleum Institute had its inception in a grant of $250,000 made by John D. Rockefeller on November 15, 1925, augmented by an equal sum given on January 12, 1926, by Universal Oil Products Company, which provided for a five-year program of research in fields of interest to the petroleum industry.

The program was continued with funds provided by the member companies of the American Petroleum Institute, and the researches are still continuing at the Carnegie Institute of Technology under the direction of Rossini.

GUSTAV EGLOFF
Universal Oil Products Company, Des Plaines, Illinois

New Books

Vapor Pressure of Organic Compounds. T. Earl Jordan. Interscience, New York–London, 1954. ix + 266 pp. Plates. $14.50.

Snow Crystals: Natural and Artifical. Ukchiro Nakaya. Harvard Univ. Press, Cambridge, 1954. xii + 510 pp. Illus. $10.

The Track of Man. Adventures of an anthropologist. Henry Field. Doubleday, Garden City, N.Y., 1953. 448 pp. Plates. $5.95.

Stress Concentration Design Factors. R. E. Peterson. Wiley, New York; Chapman & Hall, London, 1953. 155 pp. Illus. $8.50.

Radio Receiver Design. Pt. 1. Radio frequency amplification and detection. ed. 2. K. R. Sturley. Wiley, New York, 1953. 667 pp. Illus. $10.

A Practical Manual of Medical and Biological Staining Techniques. Edward Gurr. Interscience, New York, 1953. xix + 320 pp. $4.

Organic Chemistry. ed. 2. Reynold C. Fuson and H. R. Snyder. Wiley, New York; Chapman & Hall, London, 1954. viii + 544 pp. Illus. $6.50.

Metabolism of Steroid Hormones. Ralph I. Dorfman and Frank Ungar. Burgess, Minneapolis, 1953. 170 pp. Illus. $4.

International Symposium on Atmospheric Turbulence in the Boundary Layer. Geophysical Research Papers, No. 19. Massachusetts Institute of Technology, June 4–8, 1951. E. W. Hewson, Ed. Geophysics Research Directorate, Air Force Cambridge Research Center, Cambridge, 1952. 530 pp. Illus.

Induction and Dielectric Heating. J. Wesley Cable. Reinhold, New York, 1954. vii + 576 pp. Illus. $12.50.