series shows a striking similarity in much of the material covered. This Australian book does not treat moving-target indication in any form, but it has an excellent section on microwave propagation, which is more or less neglected in its American counterpart. This is an excellent book, and one which I thoroughly enjoyed reading.

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Handbuch der Pflanzenkrankheiten. vol. II, *Die Virus- und Bakterienkrankheiten,* p. 1, *Viruskrankheiten.* E. Köhler and M. Klinkowski. O. Appel and H. Richter, Eds. Paul Parey, Berlin, ed. 6, 1954. 784 pp. Illus. DM. 150.

In 1888 Paul Sorauer prepared a small plant disease book of 250 pages and without illustrations. Later editions were much enlarged, and for the most part they were edited by Otto Appel. The sixth edition, covering diseases and insect pests, is expected to require 15 volumes. The present publication, dealing with virus diseases, has only 132 pages of general information. The remainder of the volume discusses specific diseases on hosts, arranged in orders according to the Engler and Prantl classification. The listing of the viruses is fairly complete, and the discussions are as detailed as the present literature on the individual virus permits. The numerous bibliographies represent world-wide publications in a surprisingly thorough manner. The illustrations, the type, and the paper are excellent. The volume should be a great help, especially to the plant pathologist who is not already deeply versed in the subject.

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Physiology and Biochemistry of the Skin. Stephen Rothman. Univ. of Chicago Press, Chicago, 1954. xiii + 741 pp. Illus. $19.50.

By those concerned with the scientific basis of dermatology, this volume will be hailed as a welcome indication of the maturity of the field. To those concerned with skin function as an important, but not the dominating, factor in some other field of physiology, it may well come as a revelation. For it not only makes clear the extensiveness, as well as the intensiveness, of studies during the last 20 years but also convincingly demonstrates the degree to which the resultant knowledge has been integrated and systematized in at least one major school of medical science.

"The main purpose of the book is to serve dermatological research." That the author has succeeded in this task none could dispute. In the doing, however, he has set certain boundaries, which are clearly stated in the foreword, and which should be just as clearly understood by the prospective reader. In the first place, the author has concentrated on those functions which could be considered as unique to the skin, or in which the skin plays an important role. Second, he has definitely subjugated the interests of such applied fields as clinical dermatology to those of basic research. This latter restriction will undoubtedly cause some disappointment to those with clinical interests. It is most tantalizing, for instance, to be keyed up by an excellent account of sebaceous secretion and its determinants, only to be deserted just when the elucidation of seborrhea seems close at hand. But this is a small price to pay if these self-imposed restrictions were necessary to the production of a basic textbook. If the unresolved tensions should provoke another to produce as scholarly and as informative a book on clinical applications, then humanity will have been doubly served by the present one.

The only serious criticism that I would make concerns the title, which blithely assumes that "skin" is primarily a human possession. More justice would have been done to the rest of the animal kingdom, and potential readers would have been better informed, if the qualification "human" had been included in the title. Nowhere in the book is the function of nonhuman skin discussed unless it directly contributes to the current discussion on human skin. This oversight both illustrates and perpetuates the unfortunate tendency, so frequently encountered, to regard human physiology as "normal" and that of other forms as "special." In cutaneous function, as in so many other respects, it is man who is peculiar, and human peculiarities may be better understood when viewed against the broad background of evolutionary development. For example, due consideration is given to the apocrine sweat glands, and the impression is given that we should not be satisfied with the two pigeon-hole classification that has served us hitherto; but there is no hint of the current controversy over the role of these glands in the heat regulation of mammals, nor is there a suggestion that their role in human physiology may be but a stylized relic of a wider and more flexible evolutionary past.

In organization the book follows a logical sequence, from fundamental biophysical aspects, through sweat secretion and insensible water loss, to histological chemistry, and finally to certain selected special problems such as pigmentation, hair growth, nutritional influences, and the pathophysiology of blister formation. Seven of the 28 chapters are written by contributing authors: Z. Felsher, G. C. Wells, A. L. Lorincz, A. B. Lerner, H. Pinkus, and P. Flesch. The chapters in the second half are of markedly uneven length, varying from 49 to 4 pages, but this is largely a reflection of the relative state of knowledge on the various topics. The illustrations are numerous, clear, and informative. The photographs are of uniformly good quality. The maintenance of quality in photographs that have appeared in previous publications suggests that care has been taken to secure original prints and to avoid the cumulative fogginess of reproduction which so often mars good textbooks. The references are extensive but cogent. In the area of my acquaintance there are few, if any, important omissions.

I will be surprised if any dermatologist interested in the scientific basis of his art will neglect to add this volume to his reference shelves, or if any physiologist involved with skin function will be content merely to borrow it from the departmental library. For the medical historian, it is an excellent example of the fruits to be expected from the marriage of Teutonic thoroughness and New World productivity.

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Yeast Technology. John White. Wiley, New York, 1954. xvi + 432 pp. Illus. + plates. $8.

The meager literature on yeast technology is considerably enriched by this book, which is based on a series of papers published several years ago in *The American Brewer* and the *Journal of the Institute of Brewing*. The author has included "a great deal of further material necessary to produce a reasonably balanced account of the properties and technical employment of the Yeasts."

The work aims at a presentation of some of the important biological factors governing yeast growth and development, together with an account of modern methods used in the industrial propagation of yeasts.

Of particular interest is the mathematical treatment of the problems of yeast growth and fermentation. Such factors as the rate of growth of yeast, deduction of the quantities of yeast present in a fermentation at various times, the amounts of molasses (or other sugar source) and inorganic salts required at various stages, air requirements, and other data depend on simple mathematical laws. Since these are inadequately dealt with in most textbooks they are presented here from first principles.

A convenient index of microorganisms supplements adequate subject and author indexes. The volume will be welcomed by food technologists, chemists, and biologists engaged in all branches of the fermentation, brewing, and baking industries.

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Gmelins Handbuch der Anorganischen Chemie: Schwefel (Sulfur), System No. 9. Edited by Gmelin Institute. Verlag Chemie (U.S. distrib.: Walter J. Johnson, New York, and Stechert-Hafner, New York), Weinheim, West Germany, ed. 8, 1952–53. Section A-2. 450 pp. Illus. Paper, $35.30. Section A-3. xvi + 252 pp. Illus. Paper, $34. Section B-1. 372 pp. Illus. Paper, $29.40.

Prepared with painstaking care and thoroughness, this classic handbook of inorganic chemistry ranks as the most authoritative reference work in its field. Each new portion maintains the same high standards of excellence characteristic of its other portions. Those who know and use Gmelin will welcome the appearance of the up-to-date revisions and appreciate the untiring effort expended by those who make these revisions possible.

Since the three sections on sulfur considered here, together with section A-1 which is of a historical nature, have already appeared, section B-2, scheduled for the spring of 1955, will complete the treatise on this element.

Section A-2 is of primary interest to the industrial worker. It covers the occurrence of sulfur and its compounds. It also includes some 300 pages on the technology of sulfur, its di- and trioxide, and sulfuric acid; a brief account on patents; a chapter on colloidal sulfur; and a few pages on the physiological effect of sulfur, hydrogen sulfide, sulfur dioxide, and a few sulfur chlorides.

Section A-3 is concerned with the physics and chemistry of elemental sulfur, including the laboratory refining of the element, the preparation of different modifications of sulfur, and the concentration and separation of its isotopes. The sulfur system, as well as the crystallographic, magnetic, and electric properties of the element, are given in detail. Included also are chapters on the electrochemistry of sulfur, the behavior of sulfur with various substances, and the solution of sulfur in nonaqueous mediums.

Section B-1 covers in minute detail the physical and chemical properties of the hydrides and oxides of sulfur and the chemical reactions of these compounds; the portion on sulfur dioxide is particularly extensive.

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For a Science of Social Man. Convergences in anthropology, psychology, and sociology. John Gillin, Ed. Macmillan, New York, 1954. 289 pp. $4.

This is an unusual symposium in conception and in execution. It represents neither the proceedings of a symposium nor a collection of papers solicited and organized by an editor. The volume has as its background an interdisciplinary faculty seminar held at the University of North Carolina in 1949–50. John Gillin then called a conference of the contributors to the present book. They agreed upon a plan, returned to their respective universities, and, with some correspondence between them, wrote their chapters. At a second meeting of the group (both conferences were supported by the Wenner-Gren Foundation for Anthropological Research) the chapters were discussed and later revised.

The interdisciplinary net is not spread too widely. It was felt more useful to restrict the inquiry to three fields that are actually in close contact with one another and which many regard as the core of the behavioral sciences. The plan called for a double examination of each paired relationship. Thus Murdock, an anthropologist, reviews sociology and anthropology, while Becker, a sociologist, considers anthropology and sociology. The anthropology-psychology pair is dealt with by Smith and Hallowell, and the psychol-