

Darstellung von Hormonpräparaten. BY ERICH VINCKE, apl. Professor für physiologische Chemie an der Universität Hamburg. S. Hirzel Verlag, Schuhmachergasschen 1-3, Leipzig C 1, Germany. 1955. viii + 253 pp. 16 X 23.5 cm. Price, Gzln, DM 10.30.

The first reaction of this reviewer to the title and contents of this book was one of doubt that it would command much interest these days when the commercial production of at least the therapeutically useful hormones is a matter of large scale rather than of laboratory operation. Yet the fact that the publishers are bringing out the work now in a new, enlarged edition, the third since 1939, would seem to indicate that it fills some definite need. The explanation probably is that the author in each chapter prefaces and integrates his account of the preparative procedures with a discussion of the basic physiological and chemical facts and of the most important assay methods, and thus offers what amounts in effect to a small compendium of chemical endocrinology to those who wish to orient themselves in this vast field, or certain of its parts. In his survey of methods, he resorts to a broadly inclusive rather than critically selective mode of treatment, and in consequence gets involved in the description of many now largely obsolete purification and synthetic procedures dating back to the pioneering days of endocrinology. To some of us the venerable antiques resurrected here may have some positive meaning in terms of personal recollections of the exciting discoveries made in the 1920's and early 1930's, but they will hardly intrigue the reader looking merely for usable information. For instance, it is to be doubted that many people nowadays will feel the need for informing themselves on the details of the original method of Best and Banting (1923) for the preparation of the low-potency insulin then in use, or for looking up the numerous German patents granted in 1895-1896 to Baumann on his process for the manufacture of "Thyroidin" (crude thyroglobulin). The fact that a good deal of this superannuated material is presented in form of excerpts from papers or patents giving the minutiae of experimental procedure does not enhance its readability.

The most serious defect of the book, however, is that for some unexplained reason the steroidal sex hormones are omitted altogether. A sizable chapter on the adrenocortical hormones is included, but it is of limited usefulness for the reason that far too little space is allowed to the important developments in this field since 1949 relative to the items carried over from the 1st and 2nd edition (the older isolation work and the early laboratory syntheses by Reichstein of desoxycorticosterone, dehydrocorticosterone and corticosterone). While it must be conceded that the immense amount of recent synthetic work on corticoids could not have been presented in a commensurate fashion without about doubling the size of the book, a somewhat better balance between the new and the old material might have been attained by relegating the latter for the most part to the bibliography, and accommodating instead, in form of charts, a few of the modern syntheses of desoxycorticosterone, cortisone and hydrocortisone which may be presumed to have found industrial use. As it is, only one of these (the cortisone synthesis reported by the Syntex group) is rendered in some detail. The microbiological hydroxylation procedures fare a little better in this respect, but other important contributions made before 1955, such as the 9α -halocorticoids, are mentioned only in passing. It is particularly in this chapter that the scarcity of critical comment on the potential for application on a large scale of the various laboratory findings and processes discussed makes itself felt.

The section on the protein and polypeptide hormones, where there was no comparable problem of selection from a super-abundance of chemical material, is more satisfactory and genuinely useful. However, it also has its flaws.

One might take exception, for instance, to the undue reserve with which the author treats the advances made by Sanger in the elucidation of the structure of insulin, or to his contention that none of the anterior pituitary hormones has as yet been isolated in pure form. Nor will his opinion that the latter entities may in reality be secondary products formed by dissociation of a single primary hormone complex—the true secretion form—be acceptable to all workers in this field.

The bibliography, which includes a good proportion of patents, covers the literature about halfway through 1954, and hence the book is already somewhat out of date with respect to more recent developments in currently very active fields such as the corticoids and ACTH. The tables listing commercial preparations and their characteristics which are appended to each chapter are heavily biased in favor of European products; to take as an example the one pertaining to the adrenocortical hormones, one would never guess from it that cortisone and hydrocortisone were first manufactured and marketed in this country.

THE SQUIBB INSTITUTE FOR MEDICAL RESEARCH
NEW BRUNSWICK, N. J. O. WINTERSTEINER

BOOKS RECEIVED

August 10, 1956–September 10, 1956

- JOHN C. BAILAR, JR. (edited by). "The Chemistry of the Coördination Compounds." American Chemical Society Monograph Series. No. 131. Reinhold Publishing Corporation, 430 Park Avenue, New York 22, N. Y. 1956. 834 pp. \$18.50.
- J. CRANK. "The Mathematics of Diffusion." Oxford University Press, 114 Fifth Avenue, New York 11, N. Y. 1956. 347 pp. \$8.00.
- TERRELL L. HILL. "Statistical Mechanics. Principles and Selected Applications." McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, N. Y. 1956. 432 pp. \$9.00.
- R. A. V. RAFF AND J. B. ALLISON. "High Polymers." Volume XI. "Polyethylene." Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1956. 551 pp. \$16.00.
- E. H. RODD (edited by). "Chemistry of Carbon Compounds." Volume III, Part B. "Aromatic Compounds." D. Van Nostrand Company, Inc., 126 Alexander Street, Princeton, New Jersey. 1956. pp. 687-1670. \$25.00.
- PIERCE W. SELWOOD. "Magnetochemistry." Second Edition. Completely Revised and Rewritten. Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1956. 435 pp. \$11.50.
- SIDNEY SIGGIA AND HANS J. STOLTEN. "An Introduction to Modern Organic Analysis." Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1956. 250 pp. \$4.50.
- SIR ALEXANDER TODD (edited by). "Perspectives in Organic Chemistry." Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1956. 527 pp. \$7.50.
- ARNOLD WEISSBERGER, Editor. "Technique of Organic Chemistry." Volume II. Second Completely Revised and Augmented Edition. "Catalytic Reactions." V. I. Komarevsky, C. H. Riesz, and F. L. Morritz. "Photochemical Reactions." C. R. Masson, V. Boekelheide, and W. Albert Noyes, Jr. "Electrolytic Reactions." Sherlock Swann, Jr. Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1956. 543 pp. \$11.50.