

of these compounds are related to L-(+)-alanine. The apparent inversion of antipodal activity on passing from the methadones to the basic anilides suggests that in addition to the orientation of the methyl group on the asymmetric carbon of I and II, other factors may also exert a profound influence on the absolute antipodal activity of the basic anilides.

We are presently investigating the configurations of other basic anilide analgesics and methadone-type compounds.

(1) Beckett, A. H., "Stereochemical Factors in Biological Activity" in Jucker's "Progress in Drug Research," Vol. 1, Birkhauser Verlag und Stuttgart, 1959, p. 524.

(2) Wright, W. B., Jr., Brabander, H. J., and Hardy, R. A., Jr., *J. Org. Chem.*, **26**, 485(1961).

(3) Portoghesi, P. S., and Larson, D. L., *THIS JOURNAL*, **51**, 1115 (1962).

(4) Hardy, R. A., Jr., personal communication.

(5) Wright, W. B., Jr., Brabander, H. J., Hardy, R. A., Jr., Osterberg, A. C., and Rauh, C. E., to be published.

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## Book Notices

*Methods of Biochemical Analysis.* Vol. 10. Edited by DAVID GLICK. John Wiley & Sons, Inc., Interscience Division, 440 Park Ave. South, New York 16, N. Y., 1962 xi + 399 pp. 15 × 23 cm. Price \$14.50.

This tenth volume in a series concerned with methods of biochemical analysis contains sections on Separation of carbohydrate derivatives by gas-liquid partition chromatography, Determination of -SH groups in proteins, Measurement of sodium and potassium by glass electrodes, Measurement of UDP-Enzyme systems, Determination of dissociation constants for two-substrate enzyme systems, Dialysis, Countercurrent distribution, Partition methods for fractionation of cell particles and macromolecules, Determination and microscopic localization of cholesterol, and Chemical determination of flavins. Subject and author indexes for this volume as well as a cumulative index for the entire series enhance the value of the series as a reference source. Numerous literature references follow each section which should be an aid to workers employing the methods and techniques described.

*Plante Medicinali, Chimica Farmacologia e Terrapia.*

Vol. 1. By BENIGNI C. CAPRA, and P. E. CATTORINI. dott. Inverni & Bella Befia S.p.a., Via Ripamonti n. 99, Milano, Italy, 1962. vi + 730 pp. 16 × 23 cm. Price L. 8000.

This is a reference work (in Italian) on medicinal plants which covers chemical, pharmacologic, and therapeutic aspects of these substances. Volume 1 is apparently the first of a series since this volume includes plant names in the A-G group. The book is arranged alphabetically by plant name in monograph form. Each monograph includes identifying characteristics, extracts, and usual preparations with formulas as well as good, frequently extensive, literature references. An index is appended.

*Analyse des Stéroïdes Hormonaux. Méthodes générales.* Tome 1. Vol. 1. By M. F. JAYLE. Masson et C<sup>ie</sup> Editeurs, 120 boulevard Saint-Germain, Paris VI<sup>e</sup>, France, 1961. 276 pp. 16.5 × 24.5 cm. Price 45 NF.

This volume (in French) is one of a three volume set dealing with steroids and hormones. Volume 1 concerns itself with the structure, nomenclature, physical constants, hydrolysis, extraction, and purification of steroids. It also covers the analysis of conjugated steroids and spectrophotometric and chromatographic analysis of steroids.

*Précis de Botanique.* Tome 1. Vol. 1. Morphologie et Reproduction des Plantes Vasculaires, Systematique des Cryptogames, Vasculaires et des Gymnospermes. By P. CRÉTÉ. Masson et C<sup>ie</sup>, Editeurs, 120 boulevard Saint-Germain, Paris VI<sup>e</sup>, France, 1962. viii + 348 pp. 16.5 × 21.7 cm. Price 34 NF.

This first volume of a two volume set on pharmaceutical botanics (in French) includes materials on the morphology and reproduction of vascular plants and contains a section dealing with the classification of these plants.

*Gas Chromatography.* By C. AMBROSE and BARBARA A. AMBROSE. D. Van Nostrand Co., Inc., 120 Alexander St., Princeton, N. J., 1962. vii + 220 pp. 13.5 × 21.5 cm. Price \$6.75.

This book is designed as a survey of the literature on gas chromatography, including information to enable the reader to construct the necessary apparatus and utilize it intelligently. After a chapter dealing with the method generally, the book discusses retention parameters, effects on separations of solute-solvent interactions, and column performance, among other topics. A directory of equipment manufacturers is appended.