

solution rate of the various samples with the dissolution rate of micronized griseofulvin. The solid-state dispersion of griseofulvin in PVP results in a five- to tenfold increase in the dissolution rate of the drug. In the absence of wetting agent in the dissolution medium the enhancement is still greater.

Although some complexation seems to exist between griseofulvin and PVP (on the basis of preliminary solubility studies), the authors do not believe that this imposes a restriction on the utility of this dispersion technique for a large number of water-insoluble drugs. Based on our initial observations, it is suggested that griseofulvin is dispersed molecularly in the polymer film and forms a solid solution with PVP in the film. It is believed that this approach to the modification of drug properties may be of broad

import in the area of biopharmaceutics and may find significant therapeutic application.

- (1) Goldberg, A. H., Gibaldi, M., and Kanig, J. L., *J. Pharm. Sci.*, **54**, 1145 (1965).
- (2) *Ibid.*, **55**, 482 (1966).
- (3) *Ibid.*, **55**, 487 (1966).
- (4) Goldberg, A. H., Gibaldi, M., Kanig, J. L., and Mayersohn, M., *ibid.*, **55**, 581 (1966).
- (5) Tachibana, T., and Nakamura, A., *Kolloid-Z. Polymere*, **203**, 130 (1965).
- (6) Stone, I. M., U. S. pat. 3,089,818 (1963).
- (7) Sekiguchi, K., Ito, K., Owada, E., and Ueno, K., *Chem. Pharm. Bull. (Tokyo)*, **12**, 1192 (1964).

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Received July 25, 1966.
Accepted for publication August 15, 1966.

This report is based on a research project conducted by Michael Mayersohn at the College of Pharmaceutical Sciences, Columbia University, New York, N. Y.

Books

REVIEW

Drug Identification. Edited by C. A. JOHNSON and A. D. THORNTON-JONES. The Pharmaceutical Press, 17 Bloomsbury Square, London, W. C. 1, England, 1966. ix + 133 pp. 14 × 22 cm. Price \$4.90.

This book subtitled "a scheme for the identification of organic chemicals used in medicine and pharmacy" is an extension of the techniques first introduced in 1904 by Mulliken in his publication *The Identification of Pure Organic Compounds*. Within the past twenty-five years, numerous investigators have authored reference works based on accumulated data for characterization analysis. In general, a compound is subjected to preliminary tests including solubility in selected solvents, reaction with acidic and basic solutions, melting point, etc., as well as an elemental analysis. Additional tests may be performed to identify functional groups present in the compound. Based on the assigned presence of C, H, O, N, S, P, Br, Cl, I, and metals in the test sample, the analyst refers to tables which subdivide the book into combinations of elements as they frequently occur in drug substances. Compounds listed in each table are arranged in order of increasing boiling or melting points. The schematic approach ends here, and the individual is confronted with final identification by conducting the tests (e.g. colorimetric, precipitation, light-absorption, preparation, or derivatives, etc.) included for compounds which fit the general information obtained to this point.

The data contained in this volume are a creditable compilation but should be augmented for extensive and accurate identification. Improvement, is re-

quired in the form of definitive identification tests for many substances, and wherever feasible the tables should be expanded to include entries for nonofficial drugs. A worthwhile addition would be classical tabulations by functional groups which could be used in conjunction with accrued preliminary data for rapid identification of many compounds.

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NOTICES

Methods of Biochemical Analysis. Vol. 14. Edited by DAVID GLICK. Interscience Publishers, a div. of John Wiley & Sons, 605 Third Ave., New York, N. Y. 10016, 1966. vii + 562 pp. 15.5 × 23.5 cm. Price \$15.

Biochemical Preparations. Vol. 11. Editor-in-Chief ANDREAS C. MAEHLI. John Wiley & Sons, Inc., 605 Third Ave., New York, N. Y. 10016, 1966. xii + 147 pp. 15 × 23 cm. Price \$8.

Optical Page Reading Devices. By ROBERT A. WILSON. Reinhold Publishing Corp., 430 Park Ave., New York, N. Y. 10022, 1966. ix + 197 pp. 15.5 × 23.5 cm. Price \$10.

The Amphetamines: Toxicity and Dependence. By ORIANA JOSSEAU KALANT. Charles C Thomas, 301-327 E. Lawrence Ave., Springfield, Ill., 1966. xii + 151 pp. 15.5 × 23.5 cm. Price \$6.75.