

The reviewer encounters a degree of difficulty in formulating a systematic evaluation of the subjects included in Yerkes's volume, because the diversity of subject-matter does not lend itself to such treatment. However, the bulk of the research is concerned with the behavior endowment of the chimpanzee, and represents a selection from studies originally reported in monograph form.

The choice of any special group of experiments for special mention merely represents the interests of the reviewer. To him, the symbolic behavior described in the chapter on "Language and Symbolism" is of special value because of its close resemblance to the same type of behavior in humans. These experiments deal with the chimpanzees' ability to use tokens in problem solving.

The book is full of useful information for the practical caretaker of the chimpanzee as well as for the research man. It will, in fact, have a wide appeal even for those engaged in other fields. The specialists in the areas treated will find helpful summaries and useful comments on some of their problems. Any one interested in a book on animal life, written primarily from the personal experience of a man who has spent his professional career in the laboratory, will find it both illuminating and entertaining because of its diversity of scientific interests. The general reader will discover much that is both informative and intrinsically interesting in this volume. There are a number of episodes concerning the relations of the chimps with the caretakers and experimenters which indeed make entertaining reading.

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### ORGANIC CHEMISTRY

*Organic Reactions*. Vol. II. ROGER ADAMS, editor-in-chief; WERNER E. BACHMANN, LOUIS F. FIESER, JOHN R. JOHNSON and H. R. SNYDER. Pp. iv + 461.

New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd. 1944. Price, \$4.50.

IN the October 2, 1942, issue of *SCIENCE*, p. 319, Vol. I of this series was reviewed and attention called to the announced intention of its editorial board to issue additional volumes from time to time. This volume thus appears in fulfillment of that promise and will receive the same warm welcome accorded its predecessor, for it too will be of great value to all students and investigators in the very extensive field of synthetic organic chemistry.

The ten chapters included, with their authors and number of pages, are as follows: (1) Claisen Rearrangement (48 pp., D. Stanley Tarbell); (2) Preparation of Aliphatic Fluorine Compounds (45 pp., Albert L. Henne); (3) Cannizzaro Reaction (45 pp., T. A. Geissman); (4) Formation of Cyclic Ketones by Intramolecular Acylation (20 pp., William S. Johnson); (5) Reduction with Aluminum Alkoxides (The Meerwein-Ponndorf-Verley Reduction) (64 pp., A. L. Wilds); (6) Preparation of Unsymmetrical Biaryls by the Diazo Reaction and the Nitrosoacetylamine Reaction (46 pp., Werner E. Bachmann and Roger A. Hoffman); (7) Replacement of the Aromatic Primary Amino Group by Hydrogen (38 pp., Nathan Kornblum); (8) Periodic Acid Oxidation (79 pp., Ernest L. Jackson); (9) Resolution of Alcohols (35 pp., A. W. Ingersoll); (10) Preparation of Aromatic Arsonic and Arsinic Acids by the Bart, Bechamp, and Rosenmund Reactions (39 pp., Cliff S. Hamilton and Jack F. Morgan). The same admirable organization of the subject-matter of each chapter is followed as in Vol. I, with tables of contents, detailed lists of compounds to which the particular reaction has been applied and extensive references to the pertinent literature. In format, paper, binding and typography, it likewise resembles Vol. I.

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## SPECIAL ARTICLES

### ABNORMAL ALPHA KETOSTEROID EXCRETION IN PATIENTS WITH NEOPLASTIC DISEASE\*

PREVIOUSLY reported results of studies made in this laboratory of the 17-ketosteroids extracted from individual urine collections of normal persons and those with leukemia, cancer, adrenal dysfunction and pregnancy, have demonstrated the marked variability in the

nature and amounts of the substances excreted and have emphasized the importance of securing as full and detailed information as possible concerning the individual components.<sup>1,2,3,4</sup> In these investigations

<sup>1</sup> K. Dobriner, E. Gordon, C. P. Rhoads, S. Lieberman and L. F. Fieser, *SCIENCE*, 95: 534, 1942.

<sup>2</sup> C. P. Rhoads, K. Dobriner, E. Gordon, L. F. Fieser and S. Lieberman, *Trans. Assoc. Am. Phys.*, lvii: 203, 1942.

<sup>3</sup> K. Dobriner, third meeting, Conference on metabolic aspects of convalescence including bone and wound healing, Josiah Macy Jr. Foundation, 184, 1943. (Limited distribution).

<sup>4</sup> S. Lieberman, B. R. Hill, L. F. Fieser, K. Dobriner, H. C. Taylor, Jr., and C. P. Rhoads, *Abstracts*, 107th Meeting, Am. Chem. Soc., Cleveland, April, 1944.

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