94, 6874 (1972)]. By LEO A. PAQUETTE* and MICHAEL J. KUKLA, Department of Chemistry, The Ohio State University, Columbus, Ohio 43210.
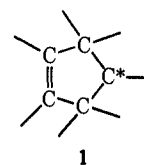
The correct name of the title compound is tricyclo-[5.3.0^{4,8}]deca-2,5,9-triene.

Dimerization of Nortropane-N-oxyl [*J. Amer. Chem. Soc.*, **94,** 7166 (1972)]. By G. D. MENDENHALL* and K. U. INGOLD, National Research Council of Canada, Ottawa, Canada K1A OR9.

The epr splitting parameters for **1** are a_N 17 G, a_H (2 H) 4 G and for **3** a_N 19.3 G, a_H (1 H) 7 G. The bridgehead protons cause the secondary splitting in each case.
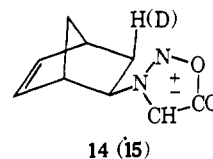
7-Norbornenyl Anions. Evidence for a Bishomoantiaromatic System [*J. Amer. Chem. Soc.*, **94,** 8489 (1972)]. By J. K. STILLE* and K. N. SANNES, Department of Chemistry, University of Iowa, Iowa City, Iowa 52240

Structure **1** should be

1

Allylcarbinyl–Cyclopropylcarbinyl Norbornenyl–Nortricyclyl Anion Rearrangement. Evidence for a Symmetrical Intermediate [*J. Amer. Chem. Soc.*, **94,** 8494 (1972)]. By J. K. STILLE* and K. N. SANNES, Department of Chemistry, University of Iowa, Iowa City, Iowa 52240.

Strucure **14 (15)** should be

14 (15)

Book Reviews*

Inorganic Chemistry. By G. C. DEMITRAS (La Salle College), C. R. RUSS (University of Maine), J. F. SALMON (Loyola College), J. H. WEBER (University of New Hampshire), and G. S. WEISS (Millersville State College). Prentice-Hall, Inc., Englewood Cliffs, N. J. 1972. x + 556 pp. $15.95.

This textbook is designed for an upperclass undergraduate course. In organization, it has some points of merit; there is unusually complete coverage of the solid state and of electrochemistry, and there are selected topics in "descriptive chemistry" (hydrides, oxides, halides, and organometallics) to go with the more theoretical material. However, much of the material (atomic structure, covalent bonding, stereochemistry, and kinetics) is presented at a level in between the usual general and physical chemistry course treatments and is probably of little value in an upperclass inorganic course.

The student would find in this text a number of models now considered outmoded by most inorganic chemists, such as the calculation of the per cent ionic character of the hydrogen halides from their dipole moments (neglecting lone pairs) and Pauling's old valence bond magnetic criteria of bonding and structure in transition metal complexes. The text's presentation of more modern topics, especially ligand field theory and the spectra, paramagnetism, and structure of complexes, seems weak. Also, this book will have little value to the student as a future reference volume, in contrast to Cotton and Wilkinson, for example.

A major problem with this book is that there are repeated errors of fact throughout. For example, serious mistakes occur in the discussions of magnetism, nonaqueous solvent systems, the use of coordination chemistry nomenclature, structures, and synthesis.

Although the instructor of an upperclass inorganic course needs to have a greater choice than is now available in the selection of textbooks, this one cannot be recommended.

John T. Yoke, *Oregon State University*

Detergency: Theory and Test Methods. Part I. (Volume 5. Surfactant Science Series). Edited by W. G. CUTLER and R. C. DAVIS (Whirlpool Corp.). Marcel Dekker, Inc., New York, N. Y. 1972. ix + 451 pp. $28.50.

Appropriate to its title, the book under review offers an excellent state-of-the-art report on the theory of detergency along with a compilation of test methods commonly in use today to evaluate detergency.

The book appears at a time when need for such a volume is being

well felt and when, more than ever before, both industrial and academic researchers are deeply involved in studies for finding efficient nonphosphate detergent systems. As is well known, detergency is a very complex process and any approach in the design and evaluation of novel detergent systems has got to be benefited by a clear understanding of such basic aspects of detergency as nature of laundry soils, the mechanism of adherence of particulate/oily soil to and their removal from fibrous substrate, soil redeposition, role of mechanical action in soil removal, etc. Chapters 3–8 of this book have given an excellent theoretical discussion on these topics. In spite of the easy-to-understand style of the presentations, some of these chapters have been dealt with in surprising depth. The subsequent chapters have dealt with the various test procedures for evaluating detergency.

The major deficiency of the book lies in the definition of terms in Chapter 2, and in the choice of exemplary illustrations therein. In more than one instance, the definitions have been inaccurate or the examples to illustrate them have been poorly chosen. However, in spite of these deficiencies, the book as a whole will be useful to the majority of readers.

This part does not have an index; the complete index of this part and that of Part II will appear at the end of Part II.

In general, this book can be highly recommended.

P. M. Chakrabarti, *GAF Corporation*

Group Theory and the Coulomb Problem. By M. J. ENGLEFIELD (Monash University, Australia). John Wiley and Sons, Inc., New York, N. Y. 1972. viii + 120 pp. $11.95.

The remarkable degeneracies of different angular momentum states in the nonrelativistic hydrogen atom (*e.g.*, 2s, 2p) are not accidental but a consequence of higher symmetry in the Coulombic Hamiltonian. (This was discovered by V. Fock in 1935.) Englefields's monograph presents a systematic account of some applications of Lie algebras and groups to fundamental problems in quantum mechanics. Also dealt with, in addition to the Coulomb problem, are the one-, two-, and three-dimensional harmonic oscillators and the theory of angular momentum. The compressed style of presentation requires some fair degree of mathematical sophistication on the part of the reader. This is perhaps in contradiction to the author's stated intention of reaching "more general readers." But for those with the requisite background and inclination, this is a very interesting little book.

S. M. Blinder, *University of Michigan*