approximate solution of a more realistic one. The distinction between that which is rigorously true and that which is "very probably nearly true" is never left fuzzy. Nevertheless, the book is neither overloaded with calculations nor sterilely formal. The essential pattern of the analysis is described, with the excruciating details omitted, and the results are neatly summarized and placed in a broad and general perspective. The historical introduction precedes reviews of exchange interactions in molecules and in solids, of angular momentum formalism (containing such little-known items as Schwinger's coupled boson representation of spin operators), and of relevant parts of molecular orbital theory. These sections provide a suitable summary of the background material needed by a student interested in magnetism. The portion of the book devoted directly to magnetism theory is less than 150 pages and consists primarily of two topics: an account of spin-wave theory in insulators and a discussion of the present status of the theory of magnetism in metals. These sections are outstanding in their clarity and originality, and I found them both interesting and instructive. The book concludes with a chapter on the simpler aspects of statistical mechanics in magnetic materials, and finally with a somewhat incongruous and lengthy excursion on the detailed solution of the two-dimensional Ising model.

To theoretically oriented students of solid-state physics, or to physicists specifically interested in spin systems, Mattis presents an account of magnetism theory stripped to its essential skeleton and written with authority and insight.

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Commonwealth and International Library of Science

Floral Biology. Mary Percival. Pergamon, New York, 1965. xvi + 243 pp. Illus. Paper, 20s.

The publisher, on the back cover, says that "This book, written for students, introduces them to the subject of floral biology, and gives them some idea of the scope of the subject rather than presenting them with a compendium of facts. The book is simply written, and contains a minimum of technical terms." The flavor of the book may be most easily conveyed by saying that every statement in this quotation is false. Its pages are filled with facts, and some idea of its simplicity may be gained from the fact that, in the first ten pages, an average of three new terms per page are introduced—for example, the following are introduced on page 2: *monoclinous, diclinous, monoecious, dioecious, gynomonoecious, andromonoecious*, and *trimonoecious*. The facts must run into the thousands, including such topics as ecology of anther dehiscence, composition of nectar, senses of flower-visiting birds, efficiency of birds as pollinators, pollination by bats, insect senses, flower form (in relation to pollination), the significance of phenology, bee flowers, fly flowers, moth flowers, butterfly flowers, isolating mechanisms in flowers, and many others.

The book is a textbook that falls into the error common to texts and to teachers: the persuasion that terminology is knowledge. American students, at least, would be entirely preoccupied by words like those cited above, to the exclusion of any real interest in flowers. But aside from its value to students, the book has a real value as a compendium of information, mainly about pollination. Results of many researches are reported in detail. A few typical examples are the percentage of protein in pollen, the relation of anther dehiscence to desiccation, the types of bills and tongues of flower-visiting birds, and the means by which pollinating insects communicate.

The text is illustrated by numerous photographs, doubtless from good negatives but muddy and unclear as reproduced, and by rather crude diagrams, which add little to one's understanding of floral structure. In figure 33, "right" and "left" seem to be reversed. Figure 45 is (to me) completely unintelligible.

The book ends with 98 references, besides a "bibliography" of 38 book titles, an "animal index," a "plant index," and a "subject index."

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Steroids: Structure and Activity

Methods in Hormone Research. vol. 4, pt. B, *Steroidal Activity in Experimental Animals and Man*. Ralph I. Dorfman, Ed. Academic Press, New York, 1965. xii + 362 pp. Illus. $13.

This book, volume 4 in the series entitled *Methods in Hormone Research,* deals with selected topics concerning steroidal activity in experimental animals and man. It is therefore a continuation of volume 3, which has the same subtitle, and it similarly attempts to summarize and interpret the literature on the subjects under discussion. With few exceptions, no new data are presented.

The primary goals in the preparation of volume 4, as stated by R. A. Huseby, were to summarize the relative potency of various steroids, to correlate biological activities of steroid hormones in experimental animals with those in man, to correlate molecular structure with biological activity, and to summarize, when possible, the mechanism of action of steroid hormones. For the most part, these goals have been achieved.

The chapters on anabolic steroids, by Fred A. Kincl; antiandrogens, by Ralph I. Dorfman; and antiprogestational compounds, by Tomotsu Miyake and R. I. Dorfman, dwell extensively on the correlation between molecular structure and function and potency of many synthetic steroidal compounds. These reviews provide a needed summary of the fairly extensive literature on these subjects. All three chapters make liberal use of tables to present the data. In fact, the long text in Kincl's review adds little to its very complete and self-explanatory tables.

Three other chapters deal with the action of steroids on tumorigenesis and neoplastic growth. H. Brendler's review on steroids in reactivated prostatic cancer refers primarily to clinical studies. R. A. Huseby's chapter on steroids and tumorigenesis in experimental animals deals with spontaneously occurring and hormonally induced tumors in mice and rats. As the author points out, the presence of species and strain differences, as well as environmental and hormonal variables, adds to the difficulty encountered in utilizing animal data for the study of the hormonal regulation of human cancer. I noted a small error on page 151, where Crooke's hyaline changes which appear in the anterior