understood, and care is taken to explain clearly points that ordinarily tend to be difficult for the student to grasp. However, in some instances the author's statements are not as precise as might be desired.

The comprehensiveness of coverage of the theory of magnetic amplifiers tends to make this book well suited for use as a textbook in a senior-level course in electrical engineering. The complete lack of problems and the relatively great expense of the book resulting from the inclusion of a large amount of material that would be wholly out of place in such a course tend to detract from the value of the book for class use. Specifically, the material on testing of magnetic materials and on the construction of magnetic amplifiers has no place in a course of such nature; furthermore, because of an almost complete lack of application of the concepts of transfer function and the mathematical analysis developed in Chapters 4–20, the discussions of applications in Chapters 23–28 have little value for a senior-level course.

However, this book should serve as an excellent reference book for the practicing engineer and the senior student alike.

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Physicochemical Calculations. E. A. Guggenheim and J. E. Prue. Series in Physics. J. De Boer, H. Brinkman, and H. B. G. Casimir, Eds. Interscience, New York; North-Holland, Amsterdam, 1955. xii + 491 pp. Illus. $7.

Physicochemical Calculations will fill a real need for a modern source book on the details of physicochemical computations long felt by physical chemistry teachers and by research workers in this area. The book contains 171 problems based on published work in physical chemistry or chemical physics. Each problem is presented in four sections: namely, data, including detailed references to the sources; procedure, which describes the method of calculation; detailed numerical calculation, paying particular attention to units; discussion of significance of the result and the relation to other work.

The problems are divided into 24 groups on the basis of their subject matter. These groups are atomic and molecular weights, Avogadro number, molecular velocities, interatomic distances, moments of inertia, characteristic frequencies, electric moments and polarizabilities, energies and enthalpies, entropies, heat capacities, equation of state, mixtures of nonelectrolytes, electrolyte solutions, conductance and diffusion of electrolytes, gaseous equilibria, chemical equilibria involving solids, solution equilibria, acid-base equilibria, general electrolyte equilibria, solid surfaces, liquid surfaces, gas kinetics, solution kinetics, radioactivity.

As may be seen from the list of subjects, there is material that will be valuable to the student and the practitioner of physical chemistry at all levels. We are indebted to the authors for their painstaking effort.

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Enzymologie. Eine Darstellung für Chemiker, Biologen und Mediziner. Otto Hoffmann-Ostenhof. Springer, Vienna, 1954. xvi + 772 pp. Illus. $26.65.

This book is an expansion of a two-semester course in enzymology for advanced students of chemistry given by the author at the University of Vienna. The first 17 chapters (175 pages) deal with general aspects of enzyme chemistry —history, kinetics, general methods of purification, thermodynamic considerations, analytic procedures employed to follow enzymatic reactions, and so forth. These subjects are not treated extensively, but the material should be useful to a beginning student in this field.

A separate chapter has been devoted to nomenclature, a specialty of the author; in fact the author's method of nomenclature for enzymes is used throughout the book. To give a few examples, D-amino acid oxidase is called D-amino acid $\rightarrow O_2$-transdehydrogenase, DPN-cytochrome c-reductase becomes DPN $\cdot H_2 \rightarrow$ cytochrome c-transelectronase, and phosphorylase is glucose-1-phosphate $\longrightarrow$ amylose-transglucosidase. In some cases, even though much is known about substrate specificity and the mode of action of the enzyme, it has been impossible to arrive at a systematic name, and the author has retained the trivial name of the enzyme, for example, pepsin, trypsin, papain. For those less adventuresome in the matter of nomenclature, the traditional name can be found in parentheses in the text or index. Some readers may consider it a minor annoyance to find the traditional name of an enzyme in the index and there cross-referenced to the author's terminology before finding the page number.

Chapters 18 to 47 (497 pages) contain discussions on the properties of individual enzymes; this portion of the text assumes the proportions of a *Handbuch*. The treatment of the individual biocatalysts is, of course, not as extensive as in a treatise such as *The Enzymes,* but the author has certainly made an effort to include pertinent facts concerning as many enzymes as possible. Literature references, frequently up to 1953, are included in each discussion. In the attempt to make the book as current as possible there has been an occasional presentation of certain material as fact which is still in the realm of theory. For example, on page 166 coA-phosphate is stated to be the intermediate of Kaufman's P-enzyme reaction.

The material in the book is well organized, and the descriptive parts are presented in a concise manner. The section of the text dealing with the individual enzymes should be helpful as a reference source for the student of enzymology.

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The Biology of Man. John S. Hensill. With chapters by Joel F. Gustafson and Herman Zaiman. Blakiston, New York, ed. 3, 1954 (Order from McGraw-Hill, New York). vii + 440 pp. Illus. $5.50.

The present book was developed by the author for use in a program in general education. He states his objectives as follows: "This book is planned to achieve several objectives which will give the student a fuller, richer life through an understanding of his own fundamental nature: (1) to understand the relation of other organisms to, and the effects of other organisms on, the human organism; (2) to understand the normal and some of the abnormal processes involved in the origin and development of human life; (3) to understand the mechanism by which human characteristics are, or are not, inherited; and (4) to understand and appreciate the place, force, and significance of biological science in our modern society. Through these the student accumulates a background of information about the one subject that interests him most, himself."

This presentation is a far cry from the older "health and hygiene" approach. Fundamental information is intelligently presented in a manner that develops recent physiological principles. If the student assimilates this information, he will possess an understanding of his anatomical and physiological self, attained by few college students. The presentation of chemical information necessary for understanding physiological activity is mature but not beyond the capabilities of the average college student. Except for a greater stress upon human character-