Biochemical Reference Work

The Encyclopedia of Biochemistry. ROGER J. WILLIAMS and EDWIN M. LANSFORD, Eds. Reinhold, New York, 1967. 894 pp., illus. $25.

The editors, in their preface, stress that the present volume is neither a dictionary nor a handbook. It comprises some 800 articles composed by 365 contributors. Among the contributors are to be found many of the very distinguished figures in the forefront of modern biochemistry. Some of the articles are several pages in length, and many are accompanied by brief bibliographies. The authorship of all but the shortest articles is indicated.

There is no doubt that this volume will find considerable use among students of the subject. It will serve as a valuable introduction wherein the reader may briefly read about the state of the art or of the science in readily comprehensible terms. The volume does not pretend to contain critical detailed reviews of any topic. The beginning graduate student in biochemistry or the student in some other biological discipline with occasional interests in biochemistry will find this encyclopedia extremely useful. The professional biochemist seeking rapid up-dating in some unfamiliar phase of his subject may consult this encyclopedia with profit. The typical consultation would be expected to be a brief one. Unfortunately, in view of the very rapid progress of the subject, the useful life of this volume will necessarily be short and the enormous labor which must have gone into its compilation will bear fruit for a limited period of years.

Undoubtedly after repeated consultation the reader will become skilled in finding what he seeks in this book. However, the new user will, on occasion, have to do some hunting. Thus there is no entry under hexokinase or glucokinase. Information about this enzyme complex can be found under "glycolysis" and perhaps elsewhere. Although formulas are abundant, certain expected structures are not illustrated. I found no structural formula for sialic acid or muramic acid, only verbal descriptions of their structures. Under "glucose" one finds the acyclic representation of its formula, although in many other places, such as in the section on "carbohydrates," pyranose and furanose are given. Nowhere is a conformational structure presented. It is in the nature of the volume that controversial matters are often presented in a unilateral fashion. It is not within the scope of this book to present opposing points of view where these exist. The reader must therefore be cautioned to note the author of each article and to appreciate that it represents that author's point of view.

A very cursory review of the volume revealed no important errors. The book certainly deserves a place on the shelf of every biochemistry departmental library, and many students will undoubtedly want to have a copy for their personal and frequent consultation. The editors are to be congratulated on their ability to bring into line the impressive list of authors who have contributed, and one may piously hope that new editions will follow each other in rapid succession.

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Trigonometry, 1464

Regiomontanus on Triangles. *De triangulis omnimodis*, by JOHANN MÜLLER, otherwise known as Regiomontanus. Translated, with an introduction and notes, by BARNABAS HUGHES. University of Wisconsin Press, Madison, 1967. 308 pp., illus. $10.

Access to the mathematical texts written in Latin in Europe before the 17th century has long been difficult. Only Fibonacci's *Liber abaci* and Stevin's *Thiende* have long been available in modern editions. Recently all Stevin's works have been made accessible. Now, thanks to Hughes, we have a modern edition of Regiomontanus's book, the book through which Latin Europe received its first systematic introduction into trigonometry. Hughes's edition consists of a facsimile reproduction of the original printed text with an English translation on facing pages.

Regiomontanus's book, finished in 1464, was first printed in 1533, in Nuremberg, and has been republished only once, in 1561 (Basel). It consists of five books, 137 pages in all, and deals with plane and spherical trigonometry. There are no formulas; all theorems and proofs are verbal, with frequent references to Euclid. Hughes has added to his careful translation a historical introduction and a bibliography. The result of his labor of love is not only a useful but also a beautifully printed book.

No lack of appreciation is intended by the remark that a little more commentary on the text, especially an occasional paraphrase of a theorem or its proof in modern notation, might have helped the reader. For example, Theorem II.24 might be expressed, in so many words, by the statement that the diameter of the circumcircle of a triangle ABC is equal to $a/\sin A = b/\sin B = c/\sin C$. And we should like to have some explanation of the curious Author's Preface—who is the mysterious "pater optimus" who silenced "the mouthings of the modern philosopher"? And who are these "Learned Lord Senators of Noricum"? The magistrates of Nuremberg?

Now that we have Stevin and Regiomontanus in modern editions, we hope soon to see Cardan's *Ars magna* made equally accessible (a manuscript English translation exists). How about Bombelli (of whom only some manuscripts have been published, in an Italian edition of 1928), Stifel, and, above all, Viète?

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Books Received

Frontiers in Physiological Psychology. Roger W. Russell, Ed. Academic Press, New York, 1966. 277 pp. Illus. $8.50. Seven papers.

Gambling. Robert D. Herman, Ed. Harper and Row, New York, 1967. 272 pp. Illus. Paper, $3.50. Readers in Social Problems Series. Twenty papers.

The Gas Liquid Chromatography of Steroids. Proceedings of a symposium (Glasgow), April 1966. J. K. Grant, Ed. Cambridge Univ. Press, New York, 1967. 302 pp. Illus. $13.50. Memoirs of the Society for Endocrinology, No. 16. Fifteen papers.

Geochemistry and Mineralogy of Rare Elements and Genetic Types of Their Deposits. vol. 2, *Mineralogy of Rare Elements.* K. A. Vlasov, Ed. Translated from the Russian (Moscow, 1964) by Z. Lerman. R. Amoils, Ed. Israel Program for Scientific Translations, Jerusalem, 1966; Davey, New York, 1967. 965 pp. Illus. $32.

High Energy Physics. vol. 1, E. H. S. Burhop, Ed. Academic Press, New York, 1967. 511 pp. Illus. $22. Five papers.

High-Temperature Chemistry: Current and Future Problems. A conference (Houston, Tex.), January 1966. Natl. Acad. of Sciences–Natl. Research Council, Washington, D.C., 1967. 106 pp. Illus. Paper, $3. Twenty papers.

Human Learning and Memory: Selected Readings. Norman J. Slamecka, Ed. Oxford Univ. Press, New York, 1967. 555 pp. Illus. Paper, $5.75. Fifty papers.

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