

Book review

Biological Functions of Carbohydrates, by DAVID J. CANDY, Blackie, Glasgow, 1980, ix + 197 pages, £ 7.95 (limp), £ 16.95 (cased).

Most one-semester courses in carbohydrate biochemistry have evolved either through use of a general biochemistry textbook or without the guidance of any textbook. A single textbook that tries to cover all areas of carbohydrate biochemistry will necessarily be superficial in its coverage of many areas. However, *Biological Functions of Carbohydrates* is a respectable attempt to summarize some of the newer ideas of carbohydrate function and to emphasize certain areas of carbohydrate biochemistry.

The book is intended as a textbook for an advanced, undergraduate course in biochemistry, but it could easily serve as the framework for a graduate course in the subject. Each chapter reviews certain concepts that could be extended and developed with additional lecture-material. The book assumes that the student has mastered introductory biochemistry, cell biology, and chemistry.

The first chapter surveys the essential chemistry of carbohydrates. It includes a clear discussion of stereoisomerism, and presents several Figures that concisely illustrate many of the major, structural concepts. At first glance, the next three chapters, on metabolism, appeared to be a reiteration of material presented in other textbooks. However, this was found to be not entirely true, as these chapters provide insight for a better understanding of the principal chemical reactions involved, a point seldom stressed in introductory texts. In the remaining six chapters, the author discusses the areas of transport across membranes, metabolism of storage polysaccharides, structural polysaccharides, and complex carbohydrates.

The reference list for this book is clearly organized, by chapter, and includes references to many of the original papers and review articles pertaining to the subject matter of that chapter. Overall, the author presents an integrated view of carbohydrate biochemistry, and, by not becoming too detailed and specific, he offers much latitude to those lecturers using the book as a classroom text, but the brevity and superficiality of the text will definitely necessitate use of additional lecture-material if the text is to be employed for a comprehensive course on carbohydrate biochemistry. Because much of the information presented in the book had been gleaned from various textbooks and review articles, the lecturer may choose this approach, foregoing use of the book; and this may well be a valid decision, especially if price is a factor in selecting the book as a classroom text.