BOOK REVIEW C11

containing an abundance of high-quality, structural formulas and reaction schemes; it is essential that a copy be in the chemical library, and most chemists should acquire a personal copy as the price is so reasonable.

National Bureau of Standards, Washington, D.C. 20234

ALEXANDER J. FATIADI

Xylitol, edited by J. N. Counsell, Applied Science Publishers, Ltd., London, 1978, xiv + 191 pages, \$25.00.

This book is a compilation of the papers given at a symposium held in May, 1977, to discuss the food technology, biochemistry, and dental aspects of xylitol. There are ten chapters covering these three divisions, and each division is followed by a neatly edited discussion-section. Although the symposium was sponsored by industry, it is a credit to the symposium organizers and speakers to find that the material presented is not generally a commercial appeal for the use of xylitol as a sugar substitute in foods and confections, or as a "new" food ingredient. Each chapter is documented with references, and there are ample graphs and charts, and also metabolic and absorption schemes. There is very little overlap of the subject matter.

A few errors in the text need to be pointed out. A structure shown for D-xylan on page 3 is an unorthodox depiction having the anomeric carbon atom of each xylosyl residue at the left instead of at the right, is devoid of free hydroxyl groups and glycosidic oxygen atoms, and contains alternating β -L- and β -D-xylopyranoside units. The long-accepted, disaccharide repeating-unit for D-xylan is, of course, 4-O- β -D-xylanopyranosyl- β -D-xylopyranose. An attempt to rationalize the absorptive difference between xylitol and D-glucitol (sorbitol) on page 47 suggests that, whereas sorbitol possesses a chiral center at C-4, xylitol does not! Finally, the molecular weight of all forms of D-glucose, including D-glucopyranose, is 180, not 162 (page 47).

The book may be of value to food chemists and food technologists who need background information on the properties and uses of xylitol in foods. The price seems reasonable.

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