Chemistry of the O-Glycosidic Bond: Formation and Cleavage: by A. F. BOCHKOV AND G. E. ZAIKOV, Pergamon Press, Oxford, 1979, 210 pages, £15.00, $30.00.

In spite of some relatively minor, but annoying, shortcomings, this is a useful book. The reactivity of the glycoside bond may justly be said to occupy a central position in carbohydrate chemistry. In the past decade, study into the controlled synthesis of glycosides has received renewed impetus that has come in no small part from the unique challenge provided by the antigenic determinants of the blood-group substances. Great progress has been made in stereo-control of glycoside synthesis, a particularly notable achievement being that of Lemieux and co-workers in their syntheses of 1,2-*cis*-glycosides.

In view of the importance of the chemistry of the glycoside bond, it is, perhaps, a little surprising that, up to the present, information on the subject has been incorporated into text-books or has been treated in reviews, but has not been covered in a separate text, as in the present volume. The appearance of this book is timely, and the collection of material into one reference work will surely be welcomed by those who, although not actively engaged in this research, require occasional access to the latest information on the best methods of glycoside synthesis.

The book comprises six chapters entitled as follows: (*a*) General characteristics of the *O*-glycosidic bond, (*b*) Formation of the *O*-glycosidic bond: general discussion, (*c*) Synthesis of oligosaccharides, (*d*) Synthesis of polysaccharides, (*e*) Miscellaneous glycoside syntheses, and (*f*) Cleavage of *O*-glycosidic bonds. The literature is covered to 1978. The second chapter is the largest (75 pages, 419 references), and the third, the second largest (50 pages, 403 references). The fourth chapter considers the fascinating problems and difficult tasks that lie behind the controlled synthesis of polysaccharides, a subject which is, essentially, at the beginning of its development.

The book was produced directly from typed, camera-ready copy, and close inspection reveals relatively few factual mistakes. Presumably, the text was prepared in English by the Russian authors with the help of the translation editor. It is in the area of English style that the book is most open to criticism. There are a few instances where phraseology is unusual, and a second reading is required in order to make the meaning clear; for example, in several curious uses of the phrase "on the contrary". Also, it was surely a mistake to have a section on "Acid-catalysed hydrolysis" with an immediate subsection headed "Basic data"! It is really rather surprising that such annoying deficiencies were not noted at some stage before publication, and does suggest that checking of text-book manuscripts could in some instances be tightened to advantage.

A further point that the reviewer found irritating and potentially confusing was the use of Bzl as an abbreviation for benzyl. In certain publications, Bn is used for benzyl, and this abbreviation certainly avoids confusion with Bz, which is commonly used, as in the present text, for benzoyl.

In summary, this is a book that not only makes constructive reading but, not-

withstanding some deficiencies, enjoyable reading. It will provide a most useful source of reference material for carbohydrate chemists in general. It may also serve as a stimulus for a further search for new glycosidation procedures; it is noteworthy that the methods currently used belong to a surprisingly small number of reaction-types.

It should be noted that as, by definition, all glycosides are *O*-glycosides, the "*O*-" in the title of the book is redundant; an alternative title, satisfying the Rules of Carbohydrate Nomenclature, would have been "Chemistry of the *O*-Glycosyl Bond".

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