

Periodate Oxidation of Diols and Other Functional Groups: by G. DRYHURST, Pergamon Press, London, 1970, xii + 191 pp., £3.50.

This book is the second in a series on the analysis of organic functional groups and, in spite of the general title, deals almost exclusively with carbohydrates. There are seven chapters dealing, in turn, with historical aspects, preparation and properties of periodates, mechanism of oxidation reactions, anomalous [*i.e.*, non-Malapradian] oxidations, use of the reaction in structural studies, analytical methods, and finally a brief chapter on synthetic uses of the reaction.

It is very useful to have all these aspects of a reaction dealt with in one volume, but the large number of errors and inaccuracies in the text reduce one's confidence in the book as a whole. There are many typographical errors; for example, amylose is described as a "linear α -(1 \rightarrow 6) glucan", and, in several cases, the names in the text do not match the formulae given. The chemical names used often do not conform to present-day nomenclature rules and, in some cases, such as " α -methyl-L-mannomethyl-O-pyranoside" and "methyl-4,6-O-benzylidene- α -D-glucoside-2-amino-altroside", are very confusing.

The lack of mention of recent work, such as oxidations in dimethyl sulphoxide (1967), is also serious. Thus, although the book is dated 1970, only five out of nearly five hundred references are to 1967 papers, and there are no references to papers published in 1968 or later. In the chapter on synthetic methods, the latest reference is to a 1963 paper, so that, for example, the nitromethane cyclisation is not put into proper perspective.

Although this book does form a useful compendium of information on periodate oxidation, it could confuse inexperienced workers, and cannot, therefore, be recommended to graduate students or undergraduates.

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