

## Book review

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*Starch and Its Components*, by W. BANKS and C. T. GREENWOOD, Edinburgh University Press, 1975, 342 pages, £10.

The names of Banks and Greenwood will be familiar to readers of *Carbohydrate Research* and other journals as the authors of numerous papers dealing with, *inter alia*, physicochemical studies on starches, the characterisation of starch and its components, studies on the biosynthesis of starch granules, studies on starch-degrading enzymes, and the thermal degradation of starch. The present volume represents a synthesis of this work covering the period 1954 to 1975; the notable advances in starch chemistry which have been made by the authors are discussed in relation to previous work, and to that carried out in other laboratories. The book is not, therefore, a comprehensive treatise on starch (for example, industrial applications are not dealt with), but it describes selected topics in a detailed and critical manner.

The topics include the fractionation of starch, the fine structure of amylose and amylopectin, the reaction of starch and its components with iodine, the conformation of amylose in dilute solution, and the enzymic synthesis and degradation of starch. For reasons which are not entirely obvious, progress in starch chemistry seems to have generated an unexpectedly large number of controversies. These include the nature of Z-enzyme, the fine structure of amylopectin, and the conformation of amylose in solution. The authors have described their own results on these topics, and, in general, have given a very fair account of the work of those whose experimental results and conclusions are different from their own (other authors please copy!). In many instances, further experimental work is clearly required to provide the answers to these and other problems. After all, we still do not know how a starch granule is formed within the living plastids of virtually all higher plants.

The authors are to be congratulated on their sustained industry, both in the laboratory and in the library. Undergraduate students will find the text an important work of reference, and a source of ideas for possible research topics, whilst parts of the book reveal a high standard of scientific scholarship which will be read with pleasure by contemporary starch chemists. On this basis, the book can be strongly recommended.

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