of appropriate ^{13}C-n.m.r. parameters for the sugars that constitute the polymers. Although there is now an extensive literature on the subject, K. Bock and C. Pedersen have accomplished the onerous task of evaluating and collating the data from numerous sources, as well as filling in some gaps. Their presentation of chemical-shift data in this volume, together with a concise treatment of the techniques and methodology of ^{13}C-n.m.r. spectroscopy, constitutes an important source of reference material. (Nevertheless, one may hope that ongoing advances in instrumentation, and also in such techniques as two-dimensional n.m.r. spectroscopy, will obviate the need for others to repeat such laborious undertakings in the future, because more-direct means for interpreting spectra should then become feasible.)

The value of n.m.r. spectroscopy in structural investigations on large, complex carbohydrates is, of course, by no means restricted to observations on ^{13}C nuclei. With the introduction of high-field spectrometers in recent years, the analytical power of ^{1}H-n.m.r. spectroscopy has been greatly enhanced. An outstanding illustration of this fact is found in an article, by J. F. G. Vliegenthart, L. Dorland, and H. van Halbeek, on carbohydrates from glycoproteins. Spectra of some seventy *N*-glycosylically linked oligosaccharides comprising the *N*-acetyllactosamine and oligomannose types of structure, most of them recorded at the lofty level of 500 MHz, have been analyzed in remarkable detail. Comprising 165 pages in all, this is surely one of the more extensive articles to appear in the "Advances" series.

In the sixth article, D. P. Delmer offers a timely appraisal of the mode of biosynthesis of cellulose. It makes fascinating reading because, experimentally, the problem is so complex and challenging that controversy surrounds virtually all aspects of the synthetic mechanism, and the author nicely rationalizes why, despite the relatively large body of research on the subject, such controversy exists.

In common with earlier volumes, the standard of editing is exemplary, and the quality of the Figures and formulas, as well as the general layout, is excellent throughout.

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Dietary Fibre: edited by GORDON G. BIRCH AND KEN J. PARKER, Applied Science Publishers, London and New York, 1983, xi + 298 pages + Subject Index, £ 28.00.

This book has 16 contributions presented to the 13th Annual International Industry–University Co-operation Symposium held at the National College of Food Technology (University of Reading), Weybridge, Surrey, 1982. The authors

include distinguished persons from Academic Institutions, Research Institutes, Industry, and Hospital Departments. Thus, the book presents interesting combinations of topics on dietary fibre; for example, historical background, composition in food products, analytical determination of fibre, and role in diseases and prevention of diseases. The sequence of the chapters could have been presented in a different way. The following discussion of the contents of the book is in the order that this reviewer would have preferred.

Chapters 1 and 2 deal mainly with hypotheses and general views on the importance of fibre in the diet, and its clinical role. These chapters adequately and successfully introduce the subject to the reader who may not be well acquainted with this field. The chemical nature of fibre is dealt with in chapters 6 and 7. Whilst chapter 6 describes chemical characterization and methods of determination of fibre components in various food materials, chapter 7 concentrates mostly on plant cell-wall. The latter chapter is of basic importance, as it gives us in-depth knowledge about the nature of fibres in our general diet. Chapter 5 discusses the supplementing of bread-making flour with guar gum (legume polysaccharide, galactomannan) with a view to increasing the proportion of unassimilable carbohydrate and making diabetic bread. The content of chapter 3 somehow does not seem to justify its title and would not have been missed if it had been entirely deleted; chapter 4 adequately covers dietary-fibre product-development and nutrient bioavailability. Chapter 12 gives a rather general account of the gastroenterological function of dietary fibre that should have been followed by chapters 14 and 16, dealing mainly with intestinal disease and metabolism by gut bacteria. Although, scientifically, they do not constitute an in-depth presentation of the subject, they make good general reading. The sequence of chapters 8, 9, and 10 covers dietary fibres in relation to bile acids and blood glucose, whereas chapters 11 and 13 discuss fibre as a tool in clinical tests. Chapters 15 deals with the use of germ-free animals for experimentation with gut microflora.

In the absence of a preface by the Editors, the aims and the scope of the book are, in my view, to educate the reader generally about dietary fibre in relation to health. The book is informative and makes good reading, and can be recommended for all libraries for people who are interested in diet. This includes the general public and colleagues in the fields of chemistry, biochemistry, natural sciences, food technology, and medicine.

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