

Book Reviews

Cellulose and its Derivatives: Chemistry, Biochemistry and Applications. Edited by J. F. Kennedy, G. O. Phillips, D. J. Wedlock and P. A. Williams. Ellis Horwood, Chichester, 1985. 551 pp. Price: £45.00.

This book is the proceedings of the Cellucon-84 meeting held at the North East Wales Institute. The conference was attended by more than 160 delegates from 20 countries. Like the Gums and Stabiliser Conferences also hosted by the same organization, there is a stimulating blend of academic and industrial participants. Although this mixture produces an excellent meeting, it does result in written contributions that vary greatly in quality and approach. The book contains 49 chapters split into sections entitled (1) Structure and Physicochemical Properties of Cellulose, (2) Biochemical, Chemical and Radiation Degradation of Cellulose and Lignocellulose, (3) Cellulose Derivatives and Industrial Applications, (4) Cellulose as a Matrix Material and (5) Poster Presentations. The chapters vary in length from five to 22 pages. Descriptions of fundamental studies of considerable scientific merit can be found alongside contributions which are very applied and would not be found in scientific journals. Fortunately, few of the latter are of the type written only to remind the reader of a company name and an already well-documented application.

The book is prepared from camera-ready copy supplied by the contributors. This has the advantage of allowing reasonably rapid production at a moderate price, but means that the quality of presentation varies from good to poor. The editors have had little, if any, opportunity to modify the English style of the contributors, though at first glance I could find nothing incomprehensible. A book of this length

containing such a wealth of material would have benefited from a more substantial index than is supplied.

In conclusion, this is a book that anyone actively working in the cellulose field must buy. The person who is not a cellulose specialist but wants an overview of the current state of the art regarding the properties, structure and applications of cellulose and its derivatives would find this a publication which is difficult to assimilate.

J. R. Mitchell

Cellulose Chemistry and its Applications. Edited by T. P. Nevell and S. H. Zevonian. Ellis Horwood, Chichester, 1985. 552 pp. Price: £55.00.

It is refreshing that there is a new interest in the science and technology of naturally derived polymers. One of the foremost in any consideration of the polysaccharide representatives must be cellulose and this volume by two experts with life-long experience in the field is a fitting tribute to the painstaking labours of many scientists who have worked either from an industrial or academic base on the problems of structure, function, modification and utilization of this ubiquitous polymer.

Immediately one begins to peruse the volume, one senses that this is not a jumble of disjointed chapters but a series of carefully prepared reviews by authorities of international repute synthesized together to give a coherent account (like pearls on a necklace), the linking theme being that of polymer science. It is a mine of information which ranges from physical aspects of structure, solution behaviour (in aqueous and non-aqueous solvents), through chapters on its chemical characterization, modification and decomposition, to reviews of specific cellulose derivatives, applications and production processes. Notwithstanding all this feast of good things, the role of cellulose in the plant is not forgotten, its biogenesis, and the use of enzymes for structural characterization and modification.

Here then is an example of a publication which admirably displays how richly some of the natural polymers have now been studied and the wealth of information that has been derived from a variety of scientific approaches. That is not to say that all of its secrets have been