

introductory level in the last chapter of the theoretical section. The book would perhaps have been improved by the addition of a chapter on the use of biocatalysts in organic media.

A very important and easily understandable section is the experimental section. This is particularly useful for its description of the immobilization methods of enzymes and yeast cells by different techniques, in the form of ten laboratory exercises, and so introduces the subject of biocatalyst immobilization at a laboratory level.

This book should be essential reading for those recently introduced to biocatalyst immobilization technology, but is particularly recommended for students and teachers of enzyme technology.

Joaquim M. S. Cabral
John F. Kennedy

The Structure of Cellulose. Edited by Rajai H. Atalla, American Chemical Society, Washington, DC, 1987. x+315 pp. ISBN 0-8412-1032-2. Price: £83.95 Hardback; £47.92 Paperback.

Cellulose is the most abundant biopolymer and represents a major renewable resource material. This linear polymer, composed of 1,4- β -D-glycosidic bonds, forms the principal constituent of plant cell walls where it occurs as microfibrils. The study of cellulose has always been controversial since it began in the middle of the past century, during the expansion of industrial use of cellulosic raw materials, and with advances in plant biology.

The structure of cellulose has therefore been studied intensively for a better understanding of its behaviour, with a view to its development, improvement and use in the production of new products in the textile finishing and paper making industries.

This volume, developed from a symposium sponsored by the Cellulose, Paper and Textile Division of the American Chemical Society, provides a historical perspective on various debates in cellulose research and presents information on recent structural studies on the forms and complexes of cellulose. Topics include X-ray diffraction studies of raman cellulose, two crystalline forms in native celluloses, irreversibility between cellulose I and II, raman spectra of cellulose, aspects of recrystallized cellulose and fractional analysis of cotton cellulose.

This book will be an invaluable reference to all those who work in any of the areas of cellulose science — they will gain valuable information on chemical and biological data of cellulose structure.

Eduardo H. M. Melo
John F. Kennedy