

Book Review

Methods in Enzymology, Biomass (Cellulose and Hemicellulose) Part A. Edited by W. A. Wood and S. T. Kellogg (Series editors S. P. Colowick and N. P. Kaplan), Academic Press Inc., London, 1988. Part A, Vol. 160, xxxv + 774 pp. ISBN 0 12 182061 0. Price: £59.00.

The importance of cellulosic materials as a renewable resource can be clearly seen from the growing number of conferences held to consider the utilization of this valuable material, as well as the many aspects of biomass conversion and utilization available in the literature.

Volume 160 of the series '*Methods in Enzymology*' collates for the first time an array of procedures related to the enzymatic conversion of plant structural biomass polymers into their constituent monomeric units. Enzymatic treatment of plant biomass involves special methods due to the insolubility of the lignocellulosic complex, as well as the resistance of the randomly substituted cellulose derivatives to enzymatic degradation. These methods include substrate preparation, measurement of chemical changes, and culturing of organisms that produce the lignocellulose-catalyzing enzymes.

The section on Biomass Cellulose and Hemicellulose is divided into two sections. Section I describes the preparation of cellulosic substrates, assays for cellulolytic enzymes, chromatographic methods for carbohydrates, miscellaneous methods for cellulolytic enzymes, and purification of enzymes of the cellulase complex system. The preparation of substrates for hemicellulases as well as analysis of β -glucan and enzyme assays, and purification of hemicellulose-degrading enzymes are covered in Section II.

The very well known '*Methods in Enzymology*' series has been approaching the whole area in which enzyme reactions occur with techniques for assaying enzymatic activities of enzymes from different sources, such as animal, plant and microorganism. Volume 160 is recommended to biochemists, chemists, chemical engineers, biotechnologists and anyone requiring updatings of their knowledge. It is also suitable for reference by under- and post-graduate students who will gain information into the potential of the lignocellulose plant biomass.

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