

Emerging Technologies for Materials and Chemicals from Biomass. Edited by R.M. Rowell, T.P. Schultz and R. Narayan, American Chemical Society, Washington, DC, 1992. x + 470 pp. Price US\$99-95. ISBN 0-8412-2171-5.

After decades of indiscriminate use of non-renewable sources of energy, chemicals and materials, in the last few years the 'new technologies' have moved their interest back to biomass.

During the crises in the Middle East, it clearly showed what kind of future it would be for us all without alternatives and renewable sources. This inversion of the trend away from biomass would ultimately be unavoidable, considering the environmental problems and the energy and food shortages in the overpopulated regions of the world.

Today, biomass is generally recognised as a large energy and material resource of the future. This renewed interest in biomass has to be managed with prudence, in order to avoid dangerous imbalance of the ecosystem. The ideal situation will be realised only when the industrial processes become inserted into the natural cycles.

This book examines the new technologies directed to the use of biomass. 'Emerging Technologies for

Materials and Chemicals from Biomass' has been developed from a symposium sponsored by the Cellulose, Paper and Textile Division at the 200th National Meeting of the American Chemical Society. The book on the whole is well organised and balanced, with opening review chapters for each section, and containing up-dated references. The volume contains 25 chapters organised into three sections: Lignocellulosic materials and composites; Biopolymers: alloys, derivatives and blends; and Chemicals and fuel from biomass, and wastes. The three sections are preceded by an introductory chapter, regarding all the general aspects of the issue (from the USA's point of view). In this book, only the photosynthetic mass (i.e. plant-based resources) is considered. The book does not include biomass such as bone, proteins, lipids and other biological components.

The book is addressed to a graduate and professional public of agricultural chemists, material scientists, wood chemists, polymer chemists and biotechnologists. As often happens, each chapter has been edited by the authors themselves with remarkably different skills and the high price is not completely justified.

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