

BOOK REVIEW

Trends in the Biology of Fermentations for Fuels and Chemicals

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Congratulations are due to Alexander Hollaender, Robert Rabson, Palmer Rogers, Anthony San Pietro, Raymond Valentine, and Ralph Wolfe for this fine new book. A debt of gratitude from the biotechnology community is owed not only to the editors, but also to most of the contributors to this 591 page volume. The book comprises the proceedings of a symposium on Trends in the Biology of Fermentations for Fuels and Chemicals, held December 7-11, 1980 at Brookhaven National Laboratory, Upton, New York. The organizers of this symposium performed masterfully with respect to assembling key contributors and skilled communicators.

Based on the contents of this volume, I count myself extremely unfortunate not to have attended this symposium; however, my consolation for the reading of this volume was the impression of attendance. This impression was received as a result of the well-written contributions, the questions and answers following the presentations, and the round table discussions of the final chapter. Although the word "trends" appears to imply updating of progress, this symposium was far more comprehensive. Basic topics, recombinant DNA and enzyme mechanisms, through the very pragmatic topics of applications and market evaluations were explored.

The key to the success of this symposium was the thorough coverage by the contributors of the biology, the chemistry, and the engineering aspects of fuel and chemical fermentations. The enzyme topics included discussions of cellulases, xylanases, lignases, amylases, and hydrogenases. The fuel products considered in this symposium were alcohol, butanol, methane, and hydrogen. The production of acrylate and hydrocarbons were representative of the chemical fermentations. Discussions of some aspects of thermophilic anaerobic microorganisms including extreme cases; microbial adaptations to stress, end-products, and ethanol contributed to a very comprehensive treatment.

A weak portion is the discussion of the poster abstracts. Many of those abstracts were only one paragraph in length, and though well written, they managed merely to whet the appetite for more information. This defect does not detract from the value of the volume as a comprehensive reference source.

“Trends in the Biology of Fermentations for Fuels and Chemicals” should stand as a beacon to light the path of progress for this exciting technology.

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