
Single Cell Protein

Study of the Economic Feasibility of Single-cell Protein Production

Single cell protein production using *Aspergillus niger* employing beet root peel extract

Single-cell Protein I, Cambridge, Mass. 1967

The Production of Single Cell Protein

Single-cell Protein

Single-Cell Protein Safety for Animal and Human Feeding

Perspectives in Biotechnology and Applied Microbiology

Single-cell Protein Production with Cell-recycle and Computer Control

January 1984 - September 1990

Single Cell Protein, 1979-85

Production and Feeding of Single Cell Protein

Its Status and Future Implications in World Food Supply

Single Cell Protein

Single-Cell Protein Analysis

Using Different Yeast Species

Single-cell Protein

Single Cell Protein Analysis

Single Cell Protein

Methods and Protocols

Single Cell Protein

Single Cell Protein

Biochemical Engineering and Biotechnology

Proceedings of the International Symposium Held in Rome, Italy, on November 7-9, 1973, Sponsored by Stanford Research Institute and Liquichimica S.p.A

Effect of Carbon Sources on Properties of Single Cell Protein and Energy Efficiency of Its Production

Single Cell Protein Prod

Proceedings of the Protein-Calorie Advisory Group of the United Nations System Symposium Investigations on Single-Cell Protein Held at the Istituto di Ricerche Farmacologiche 'Mario Negri', Milan, Italy,

March 31 - April 1, 1977

Workshop : Papers

Single Cell Protein and Microbial Processes in the Cottage Food Industries

Single Cell Protein Production by Microorganisms Utilizing Lignocellulosic Waste

Biotechnology

Single-cell Protein II

Evaluation of Single Cell Protein (SCP) Using Pigs

Single Cell Protein

Production and Feeding of Single Cell Protein

(papers Pres. at an International Conference on Single-cell Protein, SCP).

Single Cell Protein from Renewable and Nonrenewable Resources

Single Cell Protein Production from Lignocellulosic Biomass

BEARD BRADLEY

Study of the Economic Feasibility of Single-cell Protein Production Prem Jose

Biochemical Engineering and Biotechnology, 2nd Edition, outlines the principles of biochemical processes and explains their use in the manufacturing of every day products. The author uses a direct approach that should be very useful for students in following the concepts and practical applications. This book is unique in having many solved problems, case studies, examples and demonstrations of detailed experiments, with simple design equations and required calculations. Covers major concepts of biochemical engineering and biotechnology, including applications in bioprocesses, fermentation technologies, enzymatic processes, and membrane separations, amongst others Accessible to chemical engineering students who need to both learn, and apply, biological knowledge in engineering principals Includes solved problems, examples, and demonstrations of detailed experiments with simple design equations and all required calculations Offers many graphs that present actual experimental data, figures, and tables, along with explanations

Single cell protein production using *Aspergillus niger* employing beet root peel extract Springer Science & Business Media

Increasing concern about pollution that occur from agriculture wastes has stimulated the interest in converting waste material into commercially valuable products. The vegetable wastes can be used as substrate for the production of high nutritious products like single cell protein. Vegetable extract was prepared by using beetroot peels as substrate. The carbohydrate and protein content of the extract was estimated. Three different media was prepared by using vegetable extract (media 1- supplemented vegetable hydrolysate, media 2- glucose supplemented vegetable hydrolysate , media 3- vegetable hydrolysate). Submerged fermentation was carried out at three days intervals, for all the three media *Aspergillus niger* for the production of single cell protein. In all the three intervals, media 2 (glucose supplemented vegetable hydrolysate) contained highest protein content and among the intervals carbohydrate content of the three media was also determined.

Single-cell Protein I, Cambridge, Mass. 1967 LAP Lambert Academic Publishing

As the number of dairy farms is increasing, it is obvious that the discharge of whey from them can affect the environment. In other hands with this current population explosion and the limited land resources, the world will be soon unable to feed its population. That means protein gap also would continue to increase unless well planned measures are adopted to handle the situation. It is therefore, important to increase protein production by utilizing all the available ways and means. In order to bridge this gap, Single Cell Protein production is an innovative and an alternative way. Thus, this microbial biomass production and bioconversion of the wastes through microbial degradation and is the natural way to recover resources. As far as Single Cell Protein production is concerned, yeasts are probably the most widely accepted. Therefore this work delivers the information about

yeast species which can be found in dairy products, their potential in converting substrate lactose to Single Cell Protein and their identification system. Therefore the researchers who have an interest in this area, the food processing industries and the environmentalists can be benefited from this work. MIT Press (MA)

This book focuses on bioconversion of lignocellulosic residues into single-cell protein, which offers an alternative to conventional proteins (such as soybean meal, egg protein or meat protein in animal feed) that is not affected by the climate. It provides an overview of the general uses of lignocellulosic residues and their bioconversion into single-cell protein using microorganisms, as well as the recovery of the valuable by-products. It also explores the benefits and potential drawbacks of single-cell protein, with an emphasis on the economic advantages of such processes. Given its multidisciplinary scope, the book represents a valuable resource for academics and industry practitioners interested in the production of single-cell protein from lignocellulosic residues.

The Production of Single Cell Protein Springer Science & Business Media

Pretreatment and degradation of lignocellulosic materials; Principles for pre-treatment of cellulose substances; Prospects in the United States for using lignocellulosic materials; Biodegradation of lignin by *Phanerochaete chrysosporium*; Progress and problems in the utilization of cellulosic materials; Strain improvement for the production of microbial enzymes for biomass conversion; Microbial delignification of ligno-cellulosic materials; Sulfur free pre-treatment of lignocellulosic materials; Production of SCP enriched substrates from cellulosic materials; Cellulases: delicate exoproteins - demonstration of multienzyme complexes within the culture fluid of *Trichoderma reesei*; Lignin and lignocellulose; Factors determining lignin decomposition and in vitro digestibility of wheat straw during solid state fermentation with white rot fungi; Solid culture using alkali treated straw and cellulolytic fungi; Studies on the extracellular cellulolytic enzyme system of *Chaetomium cellulolyticum*; Process development; Pre-treatment and conversion of straw into protein in a solid-state culture; Pre-treatment of cereal straws and poor quality hays; Production of mycelial biomass on waste water in a rotating disc fermenter; Protein enrichment of pretreated lignocellulosic materials by fungal fermentation; Carbohydrates; Protein enrichment of starchy materials by solid state fermentation; Solid state fermentation of cassava with *Rhizopus oligosporus* NRRL 2710; Utilisation de la bagasse traitée par la soude pour la production de protéines d'organismes unicellulaires; Conversion of agricultural and industrial wastes for cellulose hydrolysis; Cellulose hydrolysis of papermill sludge; Protein enrichment of sugar beet pulps by solid state fermentation; Single cell protein from whey; General aspects of production of biomass by yeast fermentation from whey and permeate; Utilisation of whey and ultrafiltration permeates; Upgrading of mild UF-permeate by yeast fermentation - semi-industrial trials and economy; Industrial production of S.C.P. from whey; Study of S.C.P. production from starch; Whey as a source for microorganisms / amino acid pattern; SCP production from whey: scale-up of a process; Nutrition and toxicology; The animal nutritionists' dream of a new SCP; Toxicological evaluation of SCP produced from whey; Milk ultrafiltration permeate fermented by yeast: nutritive value for growing pigs; Methods of evaluation of energy and

protein values for pigs of three yeast grown on alkanes; Economic considerations regarding SCP in animal feeding; Community guidelines for the assessment of non-traditional products obtained through the culture of microorganisms and used in animal nutrition.

Single-cell Protein Humana

Upon an invitation from Arab Bureau of Education for the Gulf States "ABEGS"; an International Conference on Biotechnology and Applied Microbiology was held in Riyadh, Saudi Arabia, 12-15 November 1984. The Conference was sponsored by ABEGS and organized through cooperation with Saudi Biological Society "SBS". ABEGS was established in 1976 with the aim of coordinating, unifying and developing all aspects of Education, Culture and Science in the Gulf States. In the field of publications, ABEGS is publishing various books, pamphlets and two scientific journals, one in Arabic and the other in English entitled: the Arab Gulf Journal of Scientific Research. This volume contains topics presented by the invited speakers and selected papers from among those submitted by participants. Selection was done on basis of some of the invited talks. Main topics of the conference were grouped into sections representing seven themes of Biotechnology and Applied Microbiology: - production of microbial proteins - utilization of microorganisms for the production of chemicals - microbial treatment and utilization of waste - continuous culture - application of biotechnology in plant science - applied microbiology and environment and - applied microbiology and biotechnology: international cooperation - between developed and developing countries. Some of the topics in this volume present surveys of recent developments in several important areas of biotechnology and applied microbiology, while the remaining papers carry detailed research contributions.

Single-Cell Protein Safety for Animal and Human Feeding Springer

This detailed volume serves as a collection of methods for single-cell protein analysis, created by combining different protocols, taking advantage of new emerging technologies, and improving upon conventional methods to guide researchers aiming to perform protein analysis in single cells. Ranging from simple to complex, conventional to the most current technologies, these chapters offer readers the ability to choose the best suited methodologies for them, based on the sample type and the available technologies or equipment. Written for the highly successful Methods in Molecular Biology series, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Authoritative and practical, Single-Cell Protein Analysis: Methods and Protocols aims to help researchers utilizing single-cell protein analysis in their studies as well to inspire the development of the next generation of improved protein analysis methods in single cells.

Perspectives in Biotechnology and Applied Microbiology Elsevier

Single Cell Protein Springer Science & Business Media

Single-cell Protein Production with Cell-recycle and Computer Control Elsevier

This volume highlights recent developments in flow cytometry, affinity assays, imaging, mass spectrometry, microfluidics and other technologies that enable analysis of proteins at the single cell level. The book also includes chapters covering a suite of biochemical and biophysical methods capable of making an entire gamut of proteomic measurements, including analysis of protein abundance or expression, protein interaction networks, post-translational modifications,

translocation and enzymatic activity. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols and tips on troubleshooting and avoiding known pitfalls. Authoritative and thorough, Single Cell Protein Analysis: Methods and Protocols is useful to researchers and students in biological and biomedical sciences who have an interest in proteomic measurements in cells.

January 1984 - September 1990 Elsevier Science & Technology

In early 1973, I returned to Israel from a post-doctoral fellowship at Harvard University, and was accepted as a lecturer in the Department of Applied Microbiology at the Hebrew University of Jerusalem. Shortly after my return, Professor Richard Mateles, who at that time was head of the Department, suggested that I purchase a good and comprehensive book on single cell protein (SCP) in order to expand my general knowledge in the subject I had started then to work on; that was microbial utilization of one-carbon (C) compounds. Naturally, I took his advice (after all, he was the Boss) and bought the book, which was the only general book published on this subject at that time, and was based on papers presented at the First International Conference on Single Cell Protein, held at the Massachusetts Institute of Technology (M.I.T.), on October 1967 (Mateles and Tannenbaum, editors) [1]. Through this book I became acquainted with the world's hunger problem that existed in the past, and ways in which it was to be solved by SCP products prepared from CO₂, fossil-based raw materials, and from wastes.

Single Cell Protein, 1979-85 Humana Press

Single-Cell Protein: Safety for Animal and Human Feeding covers the proceedings of the Protein-Calorie Advisory Group of the United Nations System Symposium "Investigations On Single-Cell Protein, held at the Istituto di Ricerche Farmacologiche 'Mario Negri' Milan, Italy, on March 31 - April 1, 1977. This text is divided into three parts. The first part discusses taxonomy and pathogenicity, including topics on strengths and weaknesses of traditional criteria in the systematics of yeasts; DNA relatedness between physiologically similar strains and species of yeasts; and studies of potential pathogenicity of industrial yeasts. This book then explains the models of pathogenicity for yeasts of the genus *Candida*, as well as the characteristics and comparative studies of this genus. Metabolism and toxicology of odd-numbered carbon chain fatty acids are also tackled, which is the main topic of the second part of this book. The last part is concerned mainly with the metabolism and toxicology of alkanes. This publication will be invaluable to chemists and students of chemistry and related disciplines.

Production and Feeding of Single Cell Protein Single Cell Protein

ABSTRACT: Technical alternatives for the production of Single-Cell Protein (SCP), and the operational and economic aspects of these alternatives are discussed. Topics include: 1) SCP for human and animal consumption; 2) cell collection, fermentation, and protein extraction techniques; 3) production and processing methods; 4) uses of carob, agricultural wastes, cane, coffee, whey, sulfite liquor, methane, and yeast in SCP production; 5) evaluation methods; 6) marketing procedures; and 7) international applications and guidelines.

Its Status and Future Implications in World Food Supply

Single Cell Protein

Single-Cell Protein Analysis
Using Different Yeast Species
Single-cell Protein

Related with Single Cell Protein:

- Contraband Definition Us History : [click here](#)

Single Cell Protein Analysis
Single Cell Protein
Methods and Protocols