

Amylase Assay Using Dnsa Method

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The 15th International Conference Interdisciplinarity in Engineering - Liviu Moldovan 2022

This book contains research papers that were accepted for presentation at the 15th International Conference on Interdisciplinarity in Engineering—INTER-ENG 2021, which was held on October 7–8, 2021, in the city of Târgu-Mureș, Romania. The general scope of the conference "Innovative aspects of Industry 4.0 concepts aimed at consolidating the digital future of manufacturing in companies" is proposing a new approach related to the development of a new generation of smart factories grounded on the manufacturing and assembly process digitalization. It is related to advance manufacturing technology, lean manufacturing, sustainable manufacturing, additive manufacturing, and manufacturing tools and equipment. It is a leading international professional and scientific forum of great interest for engineers and scientists who can read in this book research works contributions and recent developments as well as current practices in advanced fields of engineering.

Studies on Production, Purification and Characterization - Dr. Chitranshu Pandey 2021-01-01

The book divide in 5 chapter each chapter has include some practical exercise which represent pure bioinformatics work. The Chapter 1 Introduction of Amylase, Chapter 2 Review of literature, Chapter 3 Materials and methodology for production of Amylase from bacterial and fungal source, Chapter4 Results obtain after the wet lab work and Chapter 5 Discussion & conclusion of obtained results.

Behaviour of Salivary Amylase in Various Reaction Environments with Reference to Km and Vmax. An Overview - Prem Jose Vazhacharickal 2017-06-01

Scientific Study from the year 2016 in the subject Chemistry - Bio-chemistry, grade: 1.5, Mar Augusthinose College, language: English, abstract: Amylase is an enzyme which catalyzes the hydrolysis of α (1, 4)-glycosidic linkages in amylose (a linear form of starch), amylopectin (a branched form of starch) and glycogen into simpler carbohydrate molecules such as oligosaccharides or disaccharides. Alpha-amylase is the major form of amylase found in human, most prominently in pancreatic juice and saliva. The salivary amylase is an amylolytic enzyme, which can acts on cooked or boiled starch and converts it in to maltose. So it became interesting to study the behaviour of salivary amylase, when it is secreted as result of different stimuli. And thus began to study the effect of five different stimulatory temperatures, and also the effect of four tastes on the behaviour of salivary amylase. For the study of stimulatory effect of temperature on salivary amylase, five different temperatures are selected (4, 27, 37, 55 and 75°C). And likewise four tastes also selected (sweet, sour, salt and bitter). The DNS method was done in the both tests to obtain the absorbance at 520 nm. The samples were collected from three people, of same age. The saliva was collected at same time, after one and a half hour of their breakfast in order to maintain a controlled condition for this study. In each cases the incubation temperature also kept as variable (4, 27, 37, 55 and 75°C). This study was also aimed to determine the behaviour of salivary amylase with reference to the kinetic parameters like Km and Vmax of salivary alpha amylase by incubating the enzyme (stimulated by different stimulatory conditions of temperature and taste) with varying concentration of substrate. The study revealed the consistency in kinetic parameters like Km and Vmax of salivary alpha amylase secreted in response to various stimuli.

[Handbook of Amylases and Related Enzymes](#) - The Amylase Research Society o 2014-06-28

This handbook, published to mark the 20th anniversary of The Amylase Research Society of Japan, presents a concise account of the properties and applications of amylases and related enzymes. Enzymes are discussed with reference to their source, isolation method, properties, inhibition, kinetics and protein structure. This information is then applied in the description and interpretation of their use in industry. As well as amylases, other enzymes capable of catalyzing reactions with starch and glycogen, and the further conversion of amylase reaction products for industrial applications are discussed. The text is supported by numerous explanatory figures and tables, and each section is fully referenced.

[Advances in Human Genetics](#) - Harry Harris 2012-12-06

Salivary Glands and Their Secretions - Leo M. Sreebny 2013-10-22

Salivary Glands and their Secretions covers the proceedings of the conference held at the University of Washington in Seattle, Washington, U.S.A. The book focuses on the structure and functions of secreting organs and the composition, mechanism, and control of secretions. The selection first reviews the comparative aspects of the structure and functions of the salivary glands; electron microscopy of induced changes in the salivary glands of rats; and the action of thyroid and adrenal glands on the submaxillary glands of mice. The book then takes a look at hormonal influences on the cytology and physiology of salivary glands and hormones and inanition. The book ponders on studies on the physiology of rat and mouse submaxillary glands and hormonal control of the nerve growth factor content in the submaxillary glands of mice. The text also examines central nervous representation of salivary secretion, secretory nerves of the salivary glands, and changes in salivary flow produced by variations in fluid and electrolyte balance. The selection is a valuable source of data for readers interested in the structure and functions of the salivary glands.

Handbook of Alcoholic Beverages, 2 Volume Set - Alan J. Buglass 2011-02-14

HANDBOOK OF ALCOHOLIC BEVERAGES A comprehensive two-volume set that describes the science and technology involved in the production and analysis of alcoholic beverages HANDBOOK OF ALCOHOLIC BEVERAGES Technical, Analytical and Nutritional Aspects At the heart of all alcoholic beverages is the process of fermentation, particularly alcoholic fermentation, whereby sugars are converted to ethanol and many other minor products. The Handbook of Alcoholic Beverages tracks the major fermentation process, and the major chemical, physical and technical processes that accompany the production of the world's most familiar alcoholic drinks. Indigenous beverages and small-scale production are also covered to a significant extent. The overall approach is multidisciplinary, reflecting the true nature of the subject. Thus, aspects of biochemistry, biology (including microbiology), chemistry, health science, nutrition, physics and technology are all necessarily involved, but the emphasis is on chemistry in many areas of the book. Emphasis is also on more recent developments and innovations, but there is sufficient background for less experienced readers. The approach is unified, in that although different beverages are dealt with in different chapters, there is extensive cross-referencing and comparison between the subjects of each chapter. Appropriate for food professionals working in the development and manufacture of alcohol-based drinks, as well as academic and industrial researchers involved in the development of testing methods for

the analysis and regulation of alcohol in the drinks industry. Divided into five parts, this comprehensive two-volume work presents: INTRODUCTION, BACKGROUND AND HISTORY: a simple introduction to the history and development of alcohol and some recent trends and developments. FERMENTED BEVERAGES: BEERS, CIDERS, WINES AND RELATED DRINKS: the latest innovations and aspects of the different fermentation processes used in beer, wine, cider, liqueur wines, fruit wines, low-alcohol and related beverages. SPIRITS: covers distillation methods and stills used in the production of whisky, cereal- and cane-based spirits, brandy, fruit spirits and liqueurs. ANALYTICAL METHODS: covering the monitoring of processes in the production of alcoholic beverages, as well as sample preparation, chromatographic, spectroscopic, electrochemical, physical, sensory and organoleptic methods of analysis. NUTRITION AND HEALTH ASPECTS RELATING TO ALCOHOLIC BEVERAGES: includes a discussion on nutritional aspects, both macro- and micro-nutrients, of alcoholic beverages, their ingestion, absorption and catabolism, the health consequences of alcohol, and details of the additives and residues within the various beverages and their raw materials.

Indian Journal of Biochemistry & Biophysics - 2002

Plant Analysis : Comprehensive Methods And Protocols - B.K. Garg 2012-06-01

The book 'Plant Analysis: Comprehensive Methods and Protocols' is a complete laboratory manual for analytical methods and techniques in the field of Agriculture, Plant Physiology, Biochemistry and related Plant Sciences. Right from nutrient analysis in plants, it covers estimations of macromolecules, such as amino acids, proteins, nucleic acids and metabolites of fatty acid metabolism. Protocols for the assay of various enzymes of nitrogen metabolism, ammonia assimilation, photosynthetic CO₂-fixation, reactive oxygen species, carbohydrate, phosphorus and energy metabolism have been elucidated in the book. Special emphasis has also been given to techniques on specific topics such as Electrophoresis, Molecular Biology, Histo-enzymology, Symbiotic Nitrogen Fixation and assay of plant growth hormones. Thus the present book is one stop solution for all important techniques and analytical methods for students and research workers engaged in plant sciences and agricultural research.

Yeasts - Verachert 1989-11-13

Indian Journal of Fibre & Textile Research - 2007

Concepts in Biochemistry - Rodney F. Boyer 2005-11-11

The third edition of Concepts in Biochemistry makes the most applied and accessible biochemistry text on the market. Students are more successful with Boyer because it isn't intimidating and it makes clear the relevance of the material to their future careers. Like the first two editions, Boyer is written for students who need an introduction to the fundamental principles of biochemistry and are preparing for a career in the allied health sciences, the biological sciences, and the environmental sciences. (The text is also appropriate for use in one-semester courses developed for chemistry majors as a result of the new American Chemical Society requirements for three-credit hours of biochemistry coursework.) The modern, student-friendly organization sets the book apart from the competition because the early placement of nucleic acids enhances the traditional coverage of protein structure and function, and metabolism. As an example, it is now possible to present metabolism in a more contemporary fashion, emphasizing gene regulation and integration. Rod Boyer is a recently retired Professor of Chemistry and Biochemistry at Hope College in Holland, Michigan. He has a PhD from Colorado State and recently spent a sabbatical year at Nobel Prize winner Tom Cech's lab at the University of Colorado. He is on the Editorial Board for the journal, Biochemistry and Molecular Biology Education and has been very active in education affairs for the American Society for Biochemistry and Molecular Biology.

Practical Methods for Environmental Microbiology and Biotechnology -

Advances in Biomedical Engineering and Technology - Albert A. Rizvanov 2020-09-28

This book comprises select peer-reviewed papers presented at the International Conference on Biomedical Engineering Science and Technology: Roadway from Laboratory to Market (ICBEST 2018) organized by

Department of Biomedical Engineering, National Institute of Technology Raipur, Chhattisgarh, India. The book covers latest research in a wide range of biomedical technologies ranging from biomechanics, biomaterials, biomedical instrumentation to tele-medicine, internet of things, bioinformatics, medical signal and image processing. The contents aim to bridge the gap between laboratory research and feasible market products by identifying potential technologies to enhance functionalities of diagnostic and therapeutic devices. The book will be of use to researchers, biomedical engineers, as well as medical practitioners.

Bacilli and Agrobiotechnology - M. Tofazzal Islam 2017-01-24

This volume of comprehensive reviews updates our knowledge of research and commercialization of Bacillus-based products in agriculture and the environmental sector. The last couple of decades have witnessed tremendous growth of research on Bacillus species. Many of these species can produce industrial enzymes, and can act simultaneously as biofertilizers and as biopesticides inhibiting important phytopathogens. This "biocontrol" activity is now elucidated by a number of genomic and metabolomic studies. Bacillus formulations are being patented and commercialized on a regular basis. Understanding the biology, ecology and mechanism of action of these bacteria will play a role in the promotion of Bacillus-based products to support green technology in agriculture and agro-based industries.

Biologically Active Peptides - Fidel Toldra 2021-06-25

Biologically Active Peptides: From Basic Science to Applications for Human Health stands as a comprehensive resource on bioactive peptide science and applications. With contributions from more than thirty global experts, topics discussed include bioactive peptide science, structure-activity relationships, best practices for their study and production, and their applications. In the interdisciplinary field of bioactive peptides, this book bridges the gap between basic peptide chemistry and human physiology, while reviewing recent advances in peptide analysis and characterization. Methods and technology-driven chapters offer step-by-step guidance in peptide preparation from different source materials, bioactivity assays, analysis and identification of bioactive peptides, encoding bioactive peptides. Later, applications across disease areas and medical specialties are examined in-depth, including the use of bioactive peptides in treating obesity, diabetes, osteoporosis, mental health disorders, food allergies, and joint health, among other disorders, as well as bioactive peptides for sensory enhancement, sports and clinical nutrition, lowering cholesterol, improving cardiovascular health, and driving advances in biotechnology. Discusses the latest advances in bioactive peptide chemistry, functionality and analysis Offers step-by-step instruction in applying new technologies for peptide extraction, protection, production and encoding, as well as employing bioactive peptide sequencing and bioactivity assays in new research Effectively links basic peptide chemistry, human biology and disease Features chapter contributions from international experts across disciplines and applications

Current Developments in Biotechnology and Bioengineering - Ashok Pandey 2016-09-17

Current Developments in Biotechnology and Bioengineering: Production, Isolation and Purification of Industrial Products provides extensive coverage of new developments, state-of-the-art technologies, and potential future trends, focusing on industrial biotechnology and bioengineering practices for the production of industrial products, such as enzymes, organic acids, biopolymers, and biosurfactants, and the processes for isolating and purifying them from a production medium. During the last few years, the tools of molecular biology and genetic and metabolic engineering have rendered tremendous improvements in the production of industrial products by fermentation. Structured by industrial product classifications, this book provides an overview of the current practice, status, and future potential for the production of these agents, along with reviews of the industrial scenario relating to their production. Provides information on industrial bioprocesses for the production of microbial products by fermentation Includes separation and purification processes of fermentation products Presents economic and feasibility assessments of the various processes and their scaling up Links biotechnology and bioengineering for industrial process development

Evaluation Technologies for Food Quality - Jian Zhong 2019-04-16

Evaluation Technologies for Food Quality summarizes food quality evaluation technologies, which include sensory evaluation techniques and chemical and physical analysis. In particular, the book introduces many novel micro and nano evaluation techniques, such as atomic force microscopy, scanning electron

microscopy, and other nanomaterial-based methods. All topics cover basic principles, procedures, advantages, limitations, recent technology development, and application progress in different types of foods. This book is a valuable resource for scientists in the field of food science, engineering, and professionals in the food industry, as well as for undergraduate and postgraduate students studying food quality evaluation technology. Explains basic principles, procedures, advantages, limitations, and current applications of recent food quality technologies Provides guidance on the understanding and application of food quality evaluation technology in the field of food research and food industry Introduces many novel micro/nano evaluation techniques, such as atomic force and scanning electron microscopies and other nanomaterial-based methods

MICROBIOLOGICAL TECHNIQUES - N. Murugalatha, Lali Growther, J. Vimalin Hena, N. Hema Shenpagam, R. Anitha, D. Kanchana Devi, G. Rajalakshmi

CONTENTS :- 1. Introduction to Microbiology, 2. Tools of Microbiology, 3. Fundamentals of Microbiology, 4. Microbial Physiology, 5. Industrial Microbiology, 6. Environmental Microbiology, 7. Food Microbiology, 8. Genetics, 9. Immunology, 10. Medical Microbiology, 11. Biochemical Methodology, 12. Virology.

PREFACE :- Microbiological Techniques is designed for the students, to explore the world of microorganisms and how the process of scientific discovery is carried out, with an ease. The study of microbiology is dynamic because of the ubiquitous nature of the microbes and the variability inherent in every living organism. The broad nature of the subject and diversity of topics from the fundamentals to its unique fields can make the way of presentation a little difficult; but it is also a part of what makes microbiology an interesting and challenging subject. The book primarily focuses on the basic microbiological techniques with applications for undergraduate and postgraduate students in diverse area of biological techniques. This book is the outcome of nearly a decade of teaching and research experience. The manual comprises twelve parts in which exercises in first three parts provide sequential developments of fundamental techniques. The remaining exercises are as independent as possible to allow the instructor to select the desirable sequence. Exercises are pursued in a normal scale providing maximum details so that one can perform the experiment independently and safely. The style and simplicity of expression have been our twin objectives. All exercises have been thoroughly tested in our laboratory by our students with wide variety of real talents and enthusiasm.

Pharmacological Assays of Plant-Based Natural Products - Thangaraj Parimelazhagan 2015-12-29

This volume provides information on how to select and screen plants for their medicinal properties. It describes phytopharmacological techniques for extracting and qualitatively and quantitatively analyzing a plant's phytochemicals. After a detailed in vitro investigation including nutritional and anti-nutritional analyses, medicinal properties were tested with various in vivo models for anti-inflammatory, analgesic, anti-pyretic, anticancer and anti-diabetic properties, as well as wound healing, neurodegenerative diseases, etc. Compound identification and purification techniques include, among others, TLC and column chromatography, as well as molecular docking with specific proteins.

Biochemical Genetics - 1967

Biotechnology- I : Including Biochemistry, Mathematics, Computer Science - Rajeshwari S. Setty 2002

Written As Per Bangalore University Syllabus. Covers Biochemistry, Mathematics, Statistics And Introduction To Computer Science. Large Number Of Worked Examples And Illustrations. Summary At The End Of Each Chapter. A Large Number Of Theory Questions That Help Make Concepts Clear And Exercise Problems For Practice. An Exhaustive List Of Formulae That Will Serve As Ready Reckoner For Last Minute References.

Industrial Biotechnology - Devarajan Thangadurai 2017-03-03

This important new book covers recent advancements, innovations, and technologies in industrial biotechnology, specifically addressing the application of various biomolecules in industrial production and in cleaning and environmental remediation sectors. The goal of industrial biotechnology is to develop new techniques and technologies to transform renewable raw materials into chemicals, materials, and fuels by the substitution of fossil fuels. With the increase in the world's population and the resultant growing energy

demand, the need for more energy can be successfully met with the advancements in industrial biotechnology. Currently across the globe significant research has been undertaken in the production of cleaner fuels, materials, and semi-synthetic chemicals, with environmental benefits. Developing countries have huge agricultural resources that could be utilized for production of value-added byproducts for the sustainable development of bio-based economy. The book opens with the chapter on the production of exopolysaccharides from halophilic microorganisms, a polymer that is normally very useful in various production sectors of the food, pharmaceutical, and petroleum industries. The book goes on to cover: The production of antimicrobial compounds from alkaliphilic bacteria Thermophilic actinomycetes Food, agro, and pharmaceutical potential and biotechnological applications of biosurfactants, halophiles, cyclodextrin glycosyl transferease, fungal chitinase, proteases, yeasts and yeast products Also covered in the book are the environmental aspects of industrial biotechnology such as the genetic enhancement for biofuel production, the production of biodegradable thermoplastics, advancements in the synthesis of bio-oil, ecofriendly treatment of agro-based lignocelluloses, and anaerobic bio reactors for hydrocarbon remediation. The international roster of chapter authors have been chosen for their renowned expertise and contribution to the various fields of industrial biotechnology. This book is suitable to chemists, biotechnologists from research institutes, academia, and students as well as for industry professionals *Understanding the Interplay Between Diet, Feed Ingredients and Gut Microbiota for Sustainable Aquaculture* - Vikas Kumar 2022-03-17

Advances in Comparative Physiology and Biochemistry - O Lowenstein 2012-12-02

Advances in Comparative Physiology and Biochemistry, Volume 7, presents four papers that illustrate a logical progression from evolutionary and genetic aspects of the biochemistry of a family of enzymes to the biochemical. The first study deals with the comparative biochemistry, physiology, and genetics of animal α -amylases. The second study examines the biochemistry of intercellular recognition, which is a component of so many biological phenomena. It covers the evolution of intercellular recognition processes; primitive sex mechanisms as precursors of intercellular recognition; conjugation in single-celled eukaryotes; fertilization in metazoans; cell aggregation as a developmental event in cellular slime molds; aggregation of dissociated sponge cells; and contact cellular interactions during embryonic development. The third paper explores the role of amino acids in neurotransmission. The final paper on the biochemical and biophysical aspects of the complex range of functions of the swimbladder in fishes establishes a link with the higher categories of organismal interaction in the fields of behavior and ecology.

Journal of the Federated Institutes of Brewing - Institute of Brewing (Great Britain) 2002

Advances in Food and Nutrition Research - 2013-05-27

Advances in Food and Nutrition Research recognizes the integral relationship between the food and nutritional sciences and brings together outstanding and comprehensive reviews that highlight this relationship. Contributions detail scientific developments in the broad areas of food science and nutrition and are intended to provide those in academia and industry with the latest information on emerging research in these constantly evolving sciences. The latest important information for food scientists and nutritionists Peer-reviewed articles by a panel of respected scientists The go-to series since 1948

Extremophilic Fungi - Sanjay Sahay

This contributory volume is a comprehensive account of recent research on extremophilic fungi. It brings to the readers, latest information on all categories of extremophilic fungi, their isolation, culture, and potential applications. The book aims at providing the audience in-depth and updated theoretical concepts, also application on the field. It will serve as a supplementary reading material in addition to basic mycology textbooks. The book fills the gap in literature and will be useful to the postgraduate students and researchers in the field of mycology, agriculture, biotechnology and Microbiology.

Soybean - Tzi-Bun Ng 2011-04-26

Soybean is an agricultural crop of tremendous economic importance. Soybean and food items derived from it form dietary components of numerous people, especially those living in the Orient. The health benefits of soybean have attracted the attention of nutritionists as well as common people.

Isozymes: Organization And Roles In Evolution, Genetics And Physiology, Proceedings Of The Seventh International Congress On Isozymes - Markert C L 1994-07-26

The Carleman linearization has become a new powerful tool in the study of nonlinear dynamical systems. Nevertheless, there is the general lack of familiarity with the Carleman embedding technique among those working in the field of nonlinear models. This book provides a systematic presentation of the Carleman linearization, its generalizations and applications. It also includes a review of existing alternative methods for linearization of nonlinear dynamical systems. There are probably no books covering such a wide spectrum of linearization algorithms. This book also gives a comprehensive introduction to the Kronecker product of matrices, whereas most books deal with it only superficially. The Kronecker product of matrices plays an important role in mathematics and in applications found in theoretical physics.

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"The scope of the journal extends from plant molecular biology through classical botany to taxonomy and ecology."--TEPS Web site

Medicinal Plants - Nirmal Joshee 2019-11-11

This book offers a fresh look on a variety of issues concerning herbal medicine - the methods of growing and harvesting various medicinal plants; their phytochemical content; medicinal usage; regulatory issues; and mechanism of action against myriad of human and animal ailments. 'Medicinal Plants: From Farm to Pharmacy' comprises chapters authored by renowned experts from academics and industry from all over the world. It provides timely, in-depth study/analysis of medicinal plants that are already available in the market as supplements or drug components, while also introducing several traditional herbs with potential medicinal applications from various regions of the world. The book caters to the needs of a diverse group of readers: plant growers, who are looking for ways to enhance the value of their crops by increasing phytochemical content of plant products; biomedical scientists who are studying newer applications for crude herbal extracts or isolated phytochemicals; clinicians and pharmacologists who are studying interactions of herbal compounds with conventional treatment modalities; entrepreneurs who are navigating ways to bring novel herbal supplements to the market; and finally, natural medicine enthusiasts and end-users who want to learn how herbal compounds are produced in nature, how do they work and how are they used in traditional or modern medicine for various disease indications.

Comparative study using banana peel and male flower as substrates for amylase production using Aspergillus niger in Kerala: an overview - Prem Jose Vazhacharickal

Amylases are well known for applications ranging from starch and food processes industry to medical applications. The increased demand for these enzymes in various industries has led to an enormous interest in developing enzymes with better properties such as raw starch degrading amylases. It is suggested that banana peel and male inflorescence could employ as a promising substrate for the production of amylase by *Aspergillus niger*. Further, solid state fermentation is a better choice for amylase production. The addition of external growth medium is also found beneficial for increasing enzyme production. The present study was undertaken to isolate, identify and characterize the *Aspergillus niger* in the culture medium followed by amylase production and extraction. The banana parts used here as substrates are ripe fruit peel and male inflorescence from locally cultivated species Ethan (Nendran), Palayamkodan (Palayanthodan), Rasakadali (Njali Poovan) and Sundari. The result shows that amylase from sundari peel have the best activity followed by Ethan peel. Ethan flower bud shows the least activity among the eight substrates under study.

Quality Control and Evaluation of Herbal Drugs - Pulok K. Mukherjee 2019-05-30

Quality Control and Evaluation of Herbal Drugs brings together current thinking and practices for evaluation of natural products and traditional medicines. The use of herbal medicine in therapeutics is on the rise in both developed and developing countries and this book facilitates the necessary development of quality standards for these medicines. This book elucidates on various challenges and opportunities for quality evaluation of herbal drugs with several integrated approaches including metabolomics, chemoprofiling, marker analysis, stability testing, good practices for manufacturing, clinical aspects, Ethnopharmacology and Ethnomedicine inspired drug development. Written by Prof. Pulok K Mukherjee, a leader in this field; the book highlights on various methods, techniques and approaches for evaluating the

purity, quality, safety and efficacy of herbal drugs. Particular attention is paid to methods that assess these drugs' activity, the compounds responsible and their underlying mechanisms of action. The book describes the quality control parameters followed in India and other countries, including Japan, China, Bangladesh, and other Asian countries, as well as the regulatory profiles of the European Union and North America. This book will be useful in bio-prospecting of natural products and traditional medicine-inspired drug discovery and development. Provides new information on the research and development of natural remedies - essential reading on the study and use of natural resources for preventative or healing purposes Brings together current thinking and practices in quality control and standardization of herbal drugs highlighting several integrated approaches for metabolomics, chemo-profiling and marker analysis Aids in developing knowledge of various techniques including macroscopy, microscopy, HPTLC, HPLC, LC-MS/MS, GC-MS etc. with the development of integrated methods for evaluation of botanicals used in traditional medicine Assessment of herbal drugs through bio-analytical techniques, bioassay guided isolation, enzyme inhibition, pharmacological, microbiological, antiviral assays and safety related quality issues References global organizations, such as the WHO, USFDA, CDSCO, AYUSH, TCM and others to serve as a comprehensive document for enforcement agencies, NGOs and regulatory authorities

Basic Techniques in Biochemistry, Microbiology and Molecular Biology - Aakanchha Jain 2021-03-14

This book presents key methodologies, tools and databases for biochemistry, microbiology and molecular biology in simple and straightforward language. Covering all aspects related to experimental principles and procedures, the protocols included here are brief and clearly defined, and include essential precautions to be taken while conducting experiments. The book is divided into two major sections: one on constructing, working with, and standard operating procedures for laboratory instruments; and one on practical procedures used in molecular biology, microbiology and biochemical analysis experiments, which are described in full. Each chapter describes both the basic theory and relevant practical details for a given experiment, and helps readers recognize both the experiment's potential and limitations. Intended as an intensive introduction to the various tools used in molecular biology, the book covers all basic methods and equipment, including cloning, PCR, spectrophotometers, ELISA readers, sonicators, etc. As such, it offers a valuable asset for final year undergraduate (especially project) students, graduate research students, research scientists and technicians who wish to understand and employ new techniques in the field of biotechnology.

Enzyme Technology - Ashok Pandey 2006

Publisher Description

Enzymes in Food Processing - Parmjit S. Panesar 2010

This book reflects an in depth study of high academic standards dealing in a coherent and lucid way the most comprehensive and advances in application of enzymes in food processing. This indispensable treatise is the product of combined efforts of leading experts of excellent academic credentials in the area of food technology and biotechnology. This unique volume gives a holistic view about the interventions of enzymes in food processing i.e. " Handles different enzymes used in food processing at one platform. " Discusses the methods of enzyme immobilization and application of immobilized enzymes in food processing. " Describes the use of enzymes as food analytical tools including biosensors " Illustrates the knowledge about novel strategies in enzyme designing. " Numerous tables and figures throughout the volume provide illustrative material to support the detailed information The present volume is an excellent resource of information especially for food scientists/technologists, biotechnologists, biochemical engineers, biochemists, organic chemists, graduate and research students.

The functional significance of amylase polymorphism in drosophi... - Alfred Jan Willem Hoorn 1943

Enzyme Technology - S. Shanmugam 2009

This book gives a broad account of enzymology and aim to put the current knowledge into perspective. The chapters follow a progression from the properties of isolated enzymes to the behaviour of enzymes in increasingly complex systems, leading up to the cell. Included is the discussion on the importance of enzymes in medicine and industry. This book discusses the behaviour of isolated enzymes, dealing in turn with isolation methods, structural characterization, kinetics, catalytic action and control of activity,

immobilization methods and various applications of enzymes. The methods for isolation and characterization of enzymes are now well-established procedures, so the rate at which three-dimensional structures and mechanisms are being determined is increasing dramatically. Ultimately it is necessary to know the behaviour of enzymes in living cells. This involves in part a synthesis of the information obtained

from the study of isolated enzymes, but it also requires detailed knowledge of the molecular morphology of the cell, which in turn requires methods for making measurements on intact cells. The study and application of enzymes have assumed increasing importance both in medicine and in industry and a discussion of these aspects is therefore given prime importance.

Basic Practical Manual on Industrial Microbiology - Basanta Kumar Rai