

Pharmaceutical Engineering By K Sambamurthy

Covers all important biotechnological topics of academic and industrial interests. Subjects such as immobilization recombinant DNA technology, monoclonal antibodies, protein and peptide delivery, gene delivery, molecular principles of drug targeting, and new generation vaccines, are all covered in detail. The book covers basic topics for both undergraduates and postgraduates, and effectively provides quality concepts and potential problems in research in biotechnology and newer drug delivery systems.

This influential book establishes the enduring vocabulary and concepts in the burgeoning field of knowledge management. It serves as the hands-on resource of choice for companies that recognize knowledge as the only sustainable source of competitive advantage going forward. Drawing from their work with more than thirty knowledge-rich firms, Davenport and Prusak--experienced consultants with a track record of success--examine how all types of companies can effectively understand, analyze, measure, and manage their intellectual assets, turning corporate wisdom into market value. They categorize knowledge work into four sequential activities--accessing, generating, embedding, and transferring--and look at the key skills, techniques, and processes of each. While they present a practical approach to cataloging and storing knowledge so that employees can easily leverage it throughout the firm, the authors caution readers on the limits of communications and information technology in managing intellectual capital.

Introductory college text with emphasis on unit operation.

A practical guide to all key the elements of pharmaceuticals and biotech manufacturing and design Engineers working in the pharmaceutical and biotech industries are routinely called upon to handle operational issues outside of their fields of expertise. Traditionally the competencies required to fulfill those tasks were achieved piecemeal, through years of self-teaching and on-the-job experience—until now. Practical Pharmaceutical Engineering provides readers with the technical information and tools needed to deal with most common engineering issues that can arise in the course of day-to-day operations of pharmaceutical/biotech research and manufacturing. Engineers working in pharma/biotech wear many hats. They are involved in the conception, design, construction, and operation of research facilities and manufacturing plants, as well as the scale-up, manufacturing, packaging, and labeling processes. They have to implement FDA regulations, validation assurance, quality control, and Good Manufacturing Practices (GMP) compliance measures, and to maintain a high level of personal and environmental safety. This book provides readers from a range of engineering specialties with a detailed blueprint and the technical knowledge needed to tackle those critical responsibilities with confidence. At minimum, after reading this book, readers will have the knowledge needed to constructively participate in contractor/user briefings. Provides pharmaceutical industry professionals with an overview of how all the parts fit together and a level of expertise that can take years of on-the-job experience to acquire Addresses topics not covered in university courses but which are crucial to working effectively in the pharma/biotech industry Fills a gap in the literature, providing important information on pharmaceutical operation issues required for meeting regulatory guidelines, plant support design, and project engineering Covers the basics of HVAC systems, water systems, electric systems, reliability, maintainability, and quality assurance, relevant to pharmaceutical engineering Practical Pharmaceutical Engineering is an indispensable “tool of the trade” for chemical engineers, mechanical engineers, and pharmaceutical engineers employed by pharmaceutical and biotech companies, engineering firms, and consulting firms. It also is a must-read for engineering students, pharmacy students, chemistry students, and others considering a career in pharmaceuticals.

The field of pharmaceutical biotechnology is evolving rapidly. A whole new arsenal of protein pharmaceuticals is being produced by recombinant techniques for cancer, viral infections, cardiovascular and hereditary disorders, and other diseases. In addition, scientists are confronted with new technologies such as polymerase chain reactions, combinatorial chemistry and gene therapy. This introductory textbook provides extensive coverage of both the basic science and the applications of biotechnology-produced pharmaceuticals, with special emphasis on their clinical use. Pharmaceutical Biotechnology serves as a complete one-stop source for undergraduate pharmacists, and it is valuable for researchers and professionals in the pharmaceutical industry as well.

IT Innovation for Adaptability and Competitiveness addresses the topic of IT innovations that can further an organization's ability to adapt and be competitive. Thus we address the problem at an earlier starting point, that is, the emergence of something innovative in an organization, applied to that organization, and its process of being diffused and accepted internally. Topics covered in the book include: -The role of IT in organizational innovation, -Innovating systems development & process, -Assessing innovation drivers, -Innovation adoption, -New environments, new innovation practices. This volume contains the edited proceedings of the Seventh Working Conference on IT Innovation for Adaptability and Competitiveness, which was sponsored by the International Federation for Information Processing (IFIP) Working Group 8.6 and held at Intel Corporation, Leixlip, Ireland in May-June 2004.

This book deals with various unique elements in the drugdevelopment process within chemical engineering science and pharmaceutical R&D. The book is intended to be used as a professional reference and potentially as a text book reference in pharmaceutical engineering and pharmaceutical sciences. Many of the experimental methods related to pharmaceutical process development are learned on the job. This book is intended to provide many of those important concepts that R&D Engineers and manufacturing Engineers should know and be familiar if they are going to be successful in the Pharmaceutical Industry. These include basic analytics for quantitation of reaction components—often skipped in ChE Reaction Engineering and kinetics books. In addition Chemical Engineering in the Pharmaceutical Industry introduces contemporary methods of data analysis for kinetic modeling and extends these concepts into Quality by Design strategies for regulatory filings. For the current professionals, in-silico process modeling tools that streamline experimental screening approaches is also new and presented here. Continuous flow processing, although mainstream for ChE, is unique in this context given the range of scales and the complex economics associated with transforming existing batch-plant capacity. The book will be split into four distinct yet related parts. These parts will address the fundamentals of analytical techniques for engineers, thermodynamic modeling, and finally provides an appendix with common engineering tools and examples of their applications.

1 Mass transfer 2 Drying 3 Heat transfer 4 Evaporation 5 Crystallization 6 Flow of fluids 7 Distillation 8 Corrosion

This book mainly aims in guiding the teachers and students, the fundamental principles of Pharmaceutical Engineering.

This book helps the students in overcoming the obstacles faced by them in understanding the aspects of Pharmaceutical

Engineering. Topics, which usually confuse the students, are explained along with applications to broaden their mental horizon regarding the subject. This book is meant to serve as an introductory text for undergraduate students doing Bachelor of Pharmaceutical Sciences (B. Pharm). It will also prove useful to people working in pharmaceutical and allied industries. In keeping with its initiatory approach to pharmaceutical engineering, only the important aspects of the subject have been discussed in a simple and easily comprehensible manner.

The Qualified Success And General Appeal Of Medicinal Chemistry Is Not Only Confined To The Indian Subcontinent, But It Has Also Won An Overwhelming Popularity In Other Parts Of The World. Specific Care Has Been Taken To Maintain And Sustain The Fundamental Philosophy Of The Textbook Embracing Rigidly The Original Pattern And Style Of Presentation With A Particular Expatriated Treatment Of Synthesis Of Potential Medicinal Compounds For The Ultimate Benefits Of The Teachers And The Taught Alike. The Present Thoroughly Revised And Skilfully Expanded Fourth Edition Essentially Contains Three New And Important Chapters, Namely : Molecular Modeling And Drug Design (Chapter 3), Adrenocortical Steroids (Chapter 24), And Antimycobacterial Agents (Chapter 26) So As To Make The Textbook More Useful To Its Readers. With The Advent Of Thirty Chapters The Present Updated Form Of Medicinal Chemistry Will Prove To Be An Asset For M. Pharm./B. Pharm. Degree Students, M. Sc. Pharmaceutical Chemistry, M.Sc. Applied Chemistry And M. Sc. Industrial Chemistry Throughout The Indian Universities. Medicinal Chemistry Appears As A Newly Designed And Artistically Presented In A Two-Colour Scheme So As To Facilitate A Distinctly More Effective Use Of The Book. This Highly Readable, Lucid, Handy, And Exceptionally Knowledgeable Textbook Will Definitely Win A Better, Bigger, And Confident Place For Itself Amongst Its Valued Readers.

A Textbook of Plant Pathology provides comprehensive coverage of the fundamentals of plant pathology. It offers an introduction to plant pathology for those new to the field. The text covers approximately 50 diseases in crop plants, providing details of symptoms, disease cycle and control measures. The book is divided into two parts, covering the principles of plant pathology and important plant diseases in crops. The section on principles of plant pathology includes a history of plant pathology, symptoms of plant diseases, epidemiology and forecasting of plant diseases, host-parasite inter-relationships and their interactions, the effect of climatic conditions on plant diseases, physiologic specialization, defence mechanisms, methods of studying plant diseases, and principles of plant disease control. Every disease discussed consists of causal organism, symptoms, disease cycle, breeding, disease-resistant varieties and chemical control methods. The book also includes a list of periodicals on plant pathology.

This second edition of a very successful book is thoroughly updated with existing chapters completely rewritten while the content has more than doubled from 16 to 36 chapters. As with the first edition, the focus is on industrial pharmaceutical research, written by a team of industry experts from around the world, while quality and safety management, drug approval and regulation, patenting issues, and biotechnology fundamentals are also covered. In addition, this new edition now not only includes biotech drug development but also the use of biopharmaceuticals in diagnostics and vaccinations. With a foreword by Robert Langer, Kenneth J Germeshausen Professor of Chemical and Biomedical Engineering at MIT and member of the National Academy of Engineering and the National Academy of Sciences.

Pharmaceutical Biotechnology offers students taking Pharmacy and related Medical and Pharmaceutical courses a comprehensive introduction to the fast-moving area of biopharmaceuticals. With a particular focus on the subject taken from a pharmaceutical perspective, initial chapters offer a broad introduction to protein science and recombinant DNA technology- key areas that underpin the whole subject. Subsequent chapters focus upon the development, production and analysis of these substances. Finally the book moves on to explore the science, biotechnology and medical applications of specific biotech products categories. These include not only protein-based substances but also nucleic acid and cell-based products. introduces essential principles underlining modern biotechnology- recombinant DNA technology and protein science an invaluable introduction to this fast-moving subject aimed specifically at pharmacy and medical students includes specific 'product category chapters' focusing on the pharmaceutical, medical and therapeutic properties of numerous biopharmaceutical products. entire chapter devoted to the principles of genetic engineering and how these drugs are developed. includes numerous relevant case studies to enhance student understanding no prior knowledge of protein structure is assumed

About the Book: During the past two decades, there have been magnificent and significant advances in both analytical instrumentation and computerized data handling devices across the globe. In this specific context the remarkable proliferation of windows

This book constitutes the refereed proceedings of the IFIP WG 8.6 International Working Conference "Creating Value for All Through IT" on Transfer and Diffusion of IT, TDIT 2014, held in Aalborg, Denmark, in June 2014. The 18 revised full papers presented together with 5 research-in-progress papers, 2 experience reports and a panel were carefully reviewed and selected from 37 submissions. The full papers are organized in the following topical sections: creating value; creating value through software development; and creating value through applications.

Biotechnology is now one of the major growth areas in science and engineering and within this broad discipline enzyme technology is one of the areas earmarked for special and significant developments. This publication is the second edition of Microbial Enzymes and Biotechnology which was originally published in 1983. In this edition the editors have attempted to bring together accounts (by the relevant experts) of the current status of the major areas of enzyme technology and specifically those areas of actual and/or potential commercial importance. Although the use of microbial enzymes may not have expanded at quite the rate expected a decade ago, there is nevertheless intense activity and considerable interest in the whole area of enzyme technology. Microbial enzymes have been used in industry for many centuries although it is only comparatively recently that detailed knowledge relating to their nature, properties and function has become more evident. Developments in the 1960s gave a major thrust to the use of microbial enzymes in industry. The commercial success of alkaline proteases and amyloglucosidases formed a bed-rock for subsequent research and development in the area.

The Textbook On Pharmaceutical Biotechnology Provides Comprehensively The Fundamental Concepts And Principles In Biotechnology To Expatriate And Substantiate Its Numerous Modern Applications With Regard To The Spectacular Development In The Pharmaceutical Industry. In A Broader Perspective, The Students Studying Biotechnology At Undergraduate And Postgraduate Levels Shall Be Grossly Benefited By Its Well-Planned Systematically Developed, Structured, Illustrated, Expanded, Elaborated, And Profusely Exemplified Subject Matter. It Essentially Comprise Five Major Chapters, Namely: Immunology And Immunological Preparations; Genetic Recombination; Antibiotics; Microbial Transformations; And Enzyme Immobilization. Besides, There Are Five Auxiliary Chapters, Namely, Advent Of Biotechnology; Biosensor Technology; Bioinformatics And Data Mining; Regulatory Issues In Biotechnology; And Safety In Biotechnology, Which Have Been Specifically Included So As To Stimulate The Students, Interest And Broaden Their Horizon Of Knowledge And

Wisdom. The Authors Earnestly Believe That The Wide Coverage Of Various Topics Mentioned Above Would Certainly Render Pharmaceutical Biotechnology To Serve As An Exclusive Source Of Information S, Ideas, Inspirations Towards Research, And Finding Newer Possible Practical Solutions To Problems Encountered In The Ever Green Pasture Using Knowledge Of Biotechnology In The Pharmaceutical Industry.

The present book is designed for B.Sc. (Gen.) and B.Sc. (Hons.) students of all Indian university. The book is amply illustrated with diagrams. Almost all important genera are discussed giving details of structure, anatomy, developmental stages of reproductive organs from different sections like Bryophytes, Pteridophytes and Gymnosperms. Paleobotany section deals with important fossil genera from Pteridophytes and Gymnosperms. Various comparisons of different genera are given in all sections. Experimental studies of Bryophytes, Pteridophytes and Gymnosperms are discussed from recent literature.

'Strategic Information Management' has been completely up-dated to reflect the rapid changes in IT and the business environment since the publication of the second edition. Half of the readings in the book have been replaced to address current issues and the latest thinking in Information Management. It goes without saying that Information technology has had a major impact on individuals, organizations and society over the past 50 years or so. There are few organizations that can afford to ignore IT and few individuals who would prefer to be without it. As managerial tasks become more complex, so the nature of the required information systems (IS) changes - from structured, routine support to ad hoc, unstructured, complex enquiries at the highest levels of management. As with the first and second editions, this third edition of 'Strategic Information Management: Challenges and strategies in managing information systems' aims to present the many complex and inter-related issues associated with the management of information systems. The book provides a rich source of material reflecting recent thinking on the key issues facing executives in information systems management. It draws from a wide range of contemporary articles written by leading experts from North America and Europe. 'Strategic Information Management' is designed as a course text for MBA, Master's level students and senior undergraduate students taking courses in information management. It provides a wealth of information and references for researchers in addition.

Management Information Systems provides comprehensive and integrative coverage of essential new technologies, information system applications, and their impact on business models and managerial decision-making in an exciting and interactive manner. The twelfth edition focuses on the major changes that have been made in information technology over the past two years, and includes new opening, closing, and Interactive Session cases.

It Is Well Known That The Applications Of Unit Operations Like Heat Transfer, Evaporation, Extraction, Mixing, Filtration And A Host Of Others Are Quite Common In The Pharmaceutical Industry, Be It In The Production Of Synthetic Drugs, Biological And Microbiological Products Or In The Manufacture Of Pharmaceutical Formulations. As Such Anyone Who Is To Look After These Manufacturing Operations Must Be Quite Knowledgeable With The Theoretical And Equipment Aspects Involved In The Relevant Unit Operations. Since A Major Involvement Of The Pharmacy Graduates Lies In The Numerous Manufacturing Operations Mentioned Above, It Is Very Much Necessary That The Subject Is Taught With A Pharmacy Orientation. There Is No Book So Far Which Has Achieved This. The Existing Books On Unit Operations Give Extensive Theory And Also Deal With A Lot Of Equipment Not Employed In The Pharmaceutical Industry. Due To A Lack Of A Pharmacy-Oriented Book In This Area, The Students And The Teachers Are Facing Difficulties In Many Ways. The Present Book Is The First One Of Its Kind On Pharmaceutical Engineering. The Special Features Of This Book Are As Follows: It Includes Theoretical And Equipment Aspects Relevant To The pharmaceutical Industry And That Too To The Extent Needed For Pharmacy Graduates And Examples From Pharmaceutical Industry Are Quoted Extensively; Solutions To A Number Of Simpler Numerical Problems Are Given. At The End Of Each Chapter, A Large Number Of Questions, Both Theoretical And Numerical, Are Given. There Is Therefore No Doubt That The Book Will Be Of Great Use Not Only To The Students But Also To The Teachers In The Subject In India And Abroad As Well.

Provides comprehensive coverage of theoretical and equipment aspects in unit operations relevant to pharmaceutical industry. All intricate aspects are explained in simple language with specific explanations and substantiated with neat and elaborate diagrammatic sketches.

This volume contains the edited proceedings of the Working Conference on the Transfer and Diffusion of IT for Organizational Resilience, sponsored by the International Federation for Information Processing (IFIP) Working Group 8.6 (Transfer and Diffusion of Information Technology), and held in Galway, Ireland in June of 2006. The material contained in this book represents current thinking on the topic of resilience by academics and leading practitioners.

This book presents an introductory overview of Actinobacteria with three main divisions: taxonomic principles, bioprospecting, and agriculture and industrial utility, which covers isolation, cultivation methods, and identification of Actinobacteria and production and biotechnological potential of antibacterial compounds and enzymes from Actinobacteria. Moreover, this book also provides a comprehensive account on plant growth-promoting (PGP) and pollutant degrading ability of Actinobacteria and the exploitation of Actinobacteria as ecofriendly nanofactories for biosynthesis of nanoparticles, such as gold and silver. This book will be beneficial for the graduate students, teachers, researchers, biotechnologists, and other professionals, who are interested to fortify and expand their knowledge about Actinobacteria in the field of Microbiology, Biotechnology, Biomedical Science, Plant Science, Agriculture, Plant pathology, Environmental Science, etc.

I-Dispensing Pharmacy - II-Dispensed Medications - a-Monophasic Liquid Dosage Forms - b-Biphasic Liquid Dosage Forms - c- Semi-solid Dosage Forms - III - Sterile Dosage Forms

The Present Compendium On Advanced Practical Medicinal Chemistry Is Designed Specifically To Serve As A Text-Cum-Reference Book Not Only Intended For The Advanced Undergraduate And Graduate Students Of Pharmacy Specializing In Pharmaceutical Chemistry But Also For The Bulk-Drug Industrial Researchers And Academics Who Work Intimately With Medicinal Compounds. It Mainly Comprises Of Four Comprehensive Chapters. First Chapter Is Entirely Devoted To

Safety In Chemical Laboratory, Which Is An Absolute Must For Each Medicinal Chemist. Second Chapter Is On Drug Synthesis And Concentrates On Three Vital Aspects, Namely : Conceptualization Of A Synthesis, Reaction Variants, And Stereochemistry. Third Chapter Exclusively Deals With Performing The Reactions And Entails The Wide Range Of Latest Laboratory Techniques Used In A Good Chemical Laboratory To Facilitate Synthesis Of Drugs. Fourth Chapter Is Particularly Focused And Earmarked To Synthesis Of Medicinal Compounds, And Essentially Include Various Cardinal Aspects, Such As :Types Of Chemical Reactions, Organic Name Reactions (Onrs), And Selected Medicinal Compounds. A Galaxy Of Eighty Carefully Chosen Medicinal Compounds Have Been Presented In Anoriginal-Unique-Style Comprising Of : Chemical Structure-Synonym (S)/Chemical Name(S)-Theory-Chemicals Required-Procedure-Precautions- Recrystallizatio-Theoretical Yield/Practical Yield-Physical Parameters-Uses, And -Questions For Viva-Voce. It Is Hoped That Advanced Practical Medicinal Chemistry Would Certainly Help To Bridge Existing Gap And Fill Up The Long Needed Vacuum In The Synthesis Of Drugs In Pharmaceutical Chemistry Departments, Academics And Bulk-Drug Industries, And May Provide The Basis For Meaningful Productive Group Discussions Of Synthetic Problems On A Broader Perspective.

Charge density analysis of materials provides a firm basis for the evaluation of the properties of materials. The design and engineering of a new combination of metals requires a firm knowledge of intermolecular features. Recent advances in technology and high-speed computation have made the crystal X-ray diffraction technique a unique tool for the determination of charge density distribution in molecular crystal. Methods have been developed to make experimental probes capable of unraveling the features of charge densities in the intra- and inter-molecular regions of crystal structures. In Metal and Alloy Bonding - An Experimental Analysis, the structural details of materials are elucidated with the X-ray diffraction technique. Analyses of the charge density and the local and average structure are given to reveal the structural properties of technologically important materials. Readers will gain a new understanding of the local and average structure of existing materials. The electron density, bonding, and charge transfer studies in Metal and Alloy Bonding - An Experimental Analysis contain useful information for researchers in the fields of physics, chemistry, materials science, and metallurgy. The properties described in these studies can contribute to the successful engineering of these technologically important materials.

A TEXTBOOK OF ALGAE to the students of Botany pursuing B.Sc.(Gen.) B.Sc. (Hons), M.Sc. and related fields like Medical Botany, Pharmacy, Agricultural Botany and Horticulture. The book is amply illustrated with examples and includes several general topics like structure and reproduction of algae, lifecycles, chemical constituents, ecology of algae, economic importance of algae, etc. Type study has been given class-wise, for instance Chlorophyceae, Xanthophyceae, Bacillariophyceae, Phaeophyceae, Rhodophyceae and Myxophyceae. Several techniques in algae, glossary of algae terms and life cycles of different algae are included in the appendices.

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