Nk Jain

This book covers the various advanced manufacturing processes employed by manufacturing industries to improve their productivity in terms of socio-economic development. The authors present automated conventional and non-conventional machining techniques as well as virtual machining principles and techniques. Material removal by mechanical, chemical, thermal and electrochemical processes are described in detail. A glossary of key concepts is attached at end of the book.

Emerging Nanotechnologies in Immunology: The Design, Applications and Toxicology of Nanopharmaceuticals and Nanovaccines aims to deliver a systematic and comprehensive review of data concerning the nature of interaction and nano-related risks between the nanopharmaceuticals currently in the pipeline of S&T development for skin, ocular and nasal drug delivery, including absorption, toxicity, and the ability to distribute after systemic exposure. The book's contributors address a representative set of the broad spectrum of nanopharmaceutics presently being used, including cationic lipid nanoparticles, polymeric PLGA, PLA nanoparticles, biomacromolecules-based nanoparticles, and other scaffolds tissue-engineered skin substitutes. In addition, regulation and risk are also covered since the safety of these nanopharmaceuticals still represents a barrier to their wide and innovative use. Provides a thorough knowledge of the safety aspects of nanopharmaceuticals currently under research Focuses on the characterization and quantification of nanopharmaceutics to allow readers to understand the correlation between the nature of the materials and their potential nanotoxicological effects Includes a thorough overview of legal and regulatory aspects and a discussion of the ethical issues related to the R&D of nanopharmaceuticals

Organisational Behaviour Is The Study Of Human Behaviour, Individual Differences, And Performances In Organisational Settings. The Field Of Organisational Behaviour Involves The Individual Behaviour And The Factors Which Affect Such Behaviour, Group Behaviour And Group Dynamics Relative To Individuals Within The Group And The Group Interface With The Organisation And The Structure Of Organisation Itself. Organisational Behaviour Prompted Us To Expand The Management Horizons And Approach The Subject From Various Angles And Various Viewpoints In Depth And In An Exhaustive Manner. The Book Introduces The Students To The Concepts Of Organisation, Organisational Behaviours And How The Managers Fit In Such Organisational Environment. It Also Describes Various Interdisciplinary Forces That Affect The Complexity Of Human Behaviour.This Book Has Been Prepared To Cover Extensively Various Facets Both Micro As Well As Macro Of The Field Of Organisational Behaviour. The Language Of Presentation Is Highly Communicative So That It Becomes Interesting And Comprehensive. This Book Describes The Introductory Approaches To Organisational Behaviour, Various Theories, Structure And Design, Motivation, Morale, Leadership Theories, Interpersonal Communication, Personality, Learning, Perception, Stress, Power And Authority, Organisational Change, Organisational Development And Conflicts & Negotiations. At The End Of Each Chapter, Review Questions And References Have Been Given For The Students For Better Understanding Of The Subject And To Facilitate Quick Revision For Examination Purposes. Sufficient Number Of Diagrams And Comparative Tables And Appendices Have Been Provided Throughout The Book For An Easy Appreciation Of Typical Business Concepts. Accordingly, This Book Is Much More Comprehensive In Its Elaboration Of Introduction As Well As Concepts Of Organisational Behaviour. The Book Has Been Specially Designed For M.B.A. And Other Professional Courses.

Intellectual Property (IP) is one of the most vital assets for any business organization. It is a domain not restricted to lawyers alone; it is a crucial area of concern for business organizations, managers, and corporate leaders. Intellectual Property and Business demonstrates how companies can deploy their IP not just as legal instruments but also as dominant and powerful financial assets, and as useful arsenal that can boost their business. The book aims to provide a basic understanding of various forms of IP that business organizations need to protect, and to analyze and understand IP management and strategy through case studies. It highlights these aspects of IP management through the lens of both a lawyer and a business manager.

Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors

Drug Delivery and Biomedical Applications

Nanotechnology-Based Approaches for Targeting and Delivery of Drugs and Genes

Polymeric Nanomaterials

Nanofinishing Science and Technology

Natural and Synthetic Biomedical Polymers

This book gathers together the research work of leading Indian scientists actually engaged in pharmaceutical research. The contributors are all distinguished experts in their respective fields. All the contributors are scientists working in Indian laboratories, however their achievements in the field are full of valuable information supplemented with adequate references which help the intended readers in digging out the complete information on any aspect. The book has 17 chapters, 150 figures and over 2150 references and will be of immense use for all pharmaceutical industries, RD laboratories, research scientists in universities colleges, teachers as well as post-graduate and graduate students.

Controlled and Novel Drug DeliveryCBS Publishers & Distributors Pvt Limited, India

Combination Drug Delivery Approach as an Effective Therapy for Various Diseases explores the use of bioengineering tools in combination drug delivery approaches to control various diseases at different clinical stages of synergistic action, varying mechanisms of action, and during the suppression of drug resistance. The book presents fundamental knowledge on the experiential and experimental aspects of drug combination approaches in order to equip rational applications in preventing the emergence of resistance during the treatment of various diseases. It provides a holistic understanding of the principles behind formation, characterization, applications, regulations, toxicity, challenges and future perspectives of combination drug delivery approaches. It will be of interest to researchers and advanced graduate students in pharmaceutical science, chemistry, biology and medicine, as well as pharmaceutical companies and scientific organizations. Provides an accounting of vital aspects on various combination drug delivery approaches, presenting next generation diagnostics and therapeutics Discusses the perspectives of current technologies in highly organized tables, illustrative figures and flow charts Defines major gaps in knowledge that can lead to significant scientific discoveries

This book discusses the recent innovations in the development of various advanced biopolymeric systems, including gels, in situ gels, hydrogels, interpenetrating polymer networks (IPNs), polyelectrolyte complexes (PECs), graft co-polymers, stimuli-responsive polymers, polymeric nanoparticles, nanocomposites, polymeric micelles, dendrimers, liposomes and scaffolds. It also examines their applications in drug delivery.

NanoBioMaterials

Pharmaceutical Product Development

Interpenetrating Polymer Network: Biomedical Applications

Polymeric Nanoparticles as a Promising Tool for Anti-cancer Therapeutics
Hybrid Nanostructures for Cancer Theranostics
Advanced Biopolymeric Systems for Drug Delivery

Polymeric Nanoparticles as Promising Tool for Anti-cancer Therapeutics provides an understanding of polymeric compounds and their use in cancer therapies. The book begins by giving an overview of the current status, future challenges and potential utilization of polymeric nanoparticles. It then covers specific polymeric nanoparticles through contributions from world-renowned experts and researchers. Chapters examine specific polymeric nanoparticles, their development as potential targeted delivery systems, and cancer characteristics that can be targeted for therapy development. The book synthesizes current research trends in the field, thus enhancing existing knowledge of nanomedicine, drug delivery and therapeutic intervention strategies in human cancers. Users will find this to be an ideal reference for research scientists and those in the pharmaceutical and medical fields who are working to develop novel cancer therapies using nanoparticle-based delivery systems. Explores the development of polymeric nanoparticle systems for the purpose of cancer therapy Presents thoroughly analyzed data and results regarding the usage of polymeric nanoparticles-based platforms for the diagnosis and treatment of cancer Highlights various cancer characteristics that can be targeted for therapeutic development using polymeric nanoparticles

Hybrid nanostructures are nanoparticles which incorporate two or more structures. These structures may represent organic or inorganic material, but they synergistically improve the application of the material for end users. Hybrid Nanostructures for Cancer Theranostics explores how hybrid nanostructures are used in cancer treatment. Focusing on the properties of hybrid nanostructures, the book demonstrates how their unique characteristics can be used to create more effective treatment techniques. In the second half of the book, the chapters examine how hybrid nanostructures are currently being used in practice, assessing the pros and cons of using different types of nanostructures for different treatments. This valuable resource will allow readers to understand the core and emerging concept of functionalization, bioconjugation, hyperthermia and phototherapy of nanoparticles which allows for the greater use of hybrid nanomaterials in cancer theranostics. Shows how the use of novel hybrid nanostructures can lead to more effective cancer treatments. Explores how hybrid nanostructures are used for different treatment types, including photo thermal therapy and drug delivery. Explains how the use of hybrid nanostructures can lead to more rapid cancer diagnosis.

This book will be mainly focussed on the properties and uses of dendrimers and dendrons. The aim of this book is to be the reference book about dendrimers applications. It will not describe all details, but it will give the reader a unique overview of what has currently been done with dendrimers, with numerous references and illustrations. It will be divided in four main parts: Part 1) Generalities, syntheses, characterizations and properties; Part 2) Applications in catalysis; Part 3) Applications for the elaboration or modification of materials; and Part 4) Applications in biology/medicine. The role of the nanometric size and the multiple functions of dendrimers on the properties will be emphasized.

Nanotechnology-Based Approaches for Targeting and Delivery of Drugs and Genes provides an overview of the important aspects of nanomedicine in order to illustrate how to design and develop novel and effective drug delivery systems using nanotechnology. The book is organized into three sections, beginning with an introduction to nanomedicine and its associated issues. Section two discusses the latest technologies in nanomedicine, while the third section covers future developments and challenges in the field. By focusing on the design, synthesis, and application of a variety of nanocarriers in drug and gene delivery, this book provides pharmaceutical and materials science students, professors, clinical researchers, and industry scientists with a valuable resource aimed at tackling the challenges of delivering drugs and genes in a more targeted manner. Explores a wide range of promising approaches for the diagnosis and treatment of diseases using the latest advances in cutting-edge nanomedical technologies Contains contributions from world-renowned experts and researchers working in the area of nanomedicine and drug delivery Covers the associated challenges and potential solutions to working with nanotechnology in drug delivery Highlights crucial topics, such as biopharmaceutical and toxicity issues, quality by design, drug targeting, and more

Bibliography of Agriculture
Handbook of Materials for Nanomedicine
The Future of Pharmaceutical Product Development and Research
Dendrimers in Nanomedicine
Principles of Nanomedicine
The Design, Applications and Toxicology of Nanopharmaceuticals and Nanovaccines

Using an interdisciplinary approach this book will appeal to a wide range of scientists wishing to explore the application of dendrimers in the field of biology and medicine.

This book presents the select proceedings of the International Conference on Recent Advancements in Mechanical Engineering (ICRAME 2020). It provides a comprehensive overview of the various technical challenges faced, their systematic investigation, contemporary developments, and future perspectives in the domain of mechanical engineering. The book covers a wide array of topics including fluid flow techniques, compressible flows, waste management and waste disposal, bio-fuels, renewable energy, cryogenic applications, computing in applied mechanics, product design, dynamics and control of structures, fracture and failure mechanics, solid mechanics, finite element analysis, tribology, nano-mechanics and MEMS, robotics, supply chain management and logistics, intelligent manufacturing system, rapid prototyping and reverse engineering, quality control and reliability, conventional and non-conventional machining, and ergonomics. This book can be useful for students and researchers interested in mechanical engineering and its allied fields.

Dendrimers, hyperbranched macromolecules, emerged just few decades ago but show promising potential as drug delivery nanocarriers, theranostic agents and gene vectors; in the pharmaceutical research and innovation area as well as in other healthcare applications. Although tremendous advancements have been made in dendrimer chemistry and their applications since their emergence, the synthesis, development and design of pure and safe dendrimer-based products have been a major challenge in this area. This book, edited by well-known researchers in the area of nanomaterials and drug-based drug delivery applications, exhaustively covers the nanotechnological

aspects, concepts, properties, characterisation, application, biofate and regulatory aspects of dendrimers. It includes sixteen vivid chapters by renowned formulators, researchers and academicians from all over the world, highlighting their specialised areas of interest in the fields of chemistry, biology, pharmacy and nanomedicine. Features: • Highlights dendrimers ' advancements in nanomedicine in the development of safe healthcare and biotechnological products • Covers physicochemical aspects, biofate, drug delivery aspects and gene therapy using dendrimers • Covers biomedical application of dendrimers in the field of biological sciences • Gives examples of dendrimer–guest interaction chemistry Dendrimers in Nanomedicine: Concept, Theory and Regulatory Perspectives provides the comprehensive overview of the latest research efforts in designing, optimising, development and scale-up of dendrimer-mediated delivery systems. It analyses the key challenges of synthesis, design, molecular modelling, fundamental concepts, drug delivery aspects, analytical tools and biological fate as well as regulatory consideration to the practical use of dendrimer application. Dr. Neelesh Kumar Mehra Assistant Professor of Pharmaceutics in the Department of Pharmaceutics at the National Institute of Pharmaceutical Education & Research (NIPER), Hyderabad, India. He has authored more than sixty peer-reviewed publications in highly reputed international journals, as well as book chapters and contributions on two patents. Dr. Mehra has 11 years of rich research and teaching experience in the formulation and development of complex, innovative biopharmaceutical products including micro- and nanotechnologies for regulated markets. Dr. Keerti Jain Assistant Professor of Pharmaceutics in the Department of Pharmaceutics, NIPER, Raebareli, India. For more than 10 years, she has been actively engaged in formulation and development of nanomedicines. Dr. Jain has supervised masters and doctoral pharmaceutics students in their research works which have been published in high quality, good impact factor journals. She has also authored more than 60 international manuscripts in peer reviewed high impact journals. In 2019, she was awarded the prestigious ICMR-Amir Shakuntala Award.

The book focuses on novel interpenetrating polymer network (IPN)/semi-IPN technologies for drug delivery and biomedical applications. The dynamism of the design and development of interpenetrating network polymers is based on their ability to provide free volume for the easy encapsulation of drugs in the three-dimensional network structure obtained by cross-linking two or more polymer networks. Natural polymer-based IPNs can deliver drugs at a controlled rate over an extended period of time, while novel IPNs ensure better mechanical strength and sustained/ controlled drug-delivery properties. This book presents an overview of the use of this technology to fabricate nanomedicine, hydrogels, nanoparticles, and microparticles, thereby unlocking IPN ' s potential in the area of drug delivery and biomedical engineering. It also discusses applications of IPN systems in cancer therapy and tissue engineering, and describes the various IPN systems and their wide usage and applications in drug delivery.

Chemistry and Applications

Advanced Machining and Manufacturing Processes

Nanotheranostics for Cancer Applications

New Molecular Tools

Emerging Nanotechnologies in Immunology

Biopolymer-Based Composites

The present book volume presents a holistic view of the aspects of nanobiomaterials incl. their stellar merits and limitations, applications in diverse fields, their futuristic promise in the fields of biomedical science and drug delivery. The federal & regulatory issues on the usage of nanobiomaterials have been assigned due consideration.

Finishing is the final operation after a part is sized and shaped. Currently in high tech industries, there is a demand for nano level surface finishing of components. This process is done to improve the surface finish, to remove the recast layer, or to remove surface and sub-surface defects. The result is low friction, longer product life, and low power requirements. Equally important is the aesthetic aspect of the product. This subject is growing very fast from the technology as well as a science point of view. Books on this subject are very limited, particularly those ones that deal with both the science as well as the technology aspects.

Carbon-based nanomaterials are rapidly emerging as one of the most fascinating materials in the twenty-first century. Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications provides a thorough examination of carbon nanomaterials, including their variants and how they can be chemically functionalized. It also gives a comprehensive overview of current advanced applications of functionalized carbon nanomaterials, including the automotive, packaging, coating, and biomedical industries. The book covers modern techniques to characterize chemically functionalized carbon nanomaterials as well as characterization of surface functional groups. It includes contributions from international leaders in the field who highlight the multidisciplinary and interdisciplinary flexibility of functionalized carbon nanomaterials. The book illustrates how natural drawbacks to carbon nanomaterials, such as low solubility, can be countered by surface modifications and shows how to make modifications. It discusses developments in the use of carbon nanomaterials in several critical areas in scientific research and practice, including analytical chemistry, drug delivery, and water treatment. It explores market opportunities due to the versatility and increasing applicability of carbon nanomaterials. It also gives suggestions on the direction of the field from its current point, paving the way for future developments and finding new applications. Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications is a significant collection of findings in a rapidly developing field. It gives an in-depth look at the current achievements of research and practice while pointing you ahead to new possibilities in functionalizing and using carbon nanomaterials.

Biopolymer-Based Composites: Drug Delivery and Biomedical Applications presents a comprehensive review on recent developments in biopolymer-based composites and their use in drug delivery and biomedical applications. The information contained in this book is critical for the more efficient use of composites, as detailed up-to-date information is a pre-requirement. The information provided brings cutting-edge developments to the attention of young investigators to encourage further advances in the field of bio-composite research. Currently, biopolymers are being investigated for the design of various drug delivery and biomedical devices due to their non-toxic, biodegradable and biocompatible nature. Mostly, biopolymer-based solid orals, gels, hydrogel beads, and transdermal matrices have been designed in order to control drug/protein release in simulated bio-fluids. Presents the most updated information in the field of pharmaceutical and biological sciences Contains color figures and illustrations to help users understand key topics Useful guide for young researchers working towards new innovations Includes chapters covered by eminent scientists in the field

Dendrimers in Medicine and Biotechnology

Prof. Dr. Karl-Hermann Neumann Commemorative Volume

Comprehensive Materials Finishing

Cumulated Index Medicus
Justice, Judocracy and Democracy in India
Controlled and Novel Drug Delivery

In the fast-developing field of nanomedicine, a broad variety of materials have been used for the development of advanced delivery systems for drugs, genes, and diagnostic agents. With the recent breakthroughs in the field, we are witnessing a new age of disease management, which is governed by precise regulation of dosage and delivery. This book presents the advances in the use of polymeric nanomaterials for medical imaging, diagnosis, theranostics, and drug delivery. Beginning with the combinatorial approach for polymer design, it discusses star-shaped amphiphilic polymers, self-assembling polymer-drug conjugates, amphiphilic dendrimers, dendrimer nanohybrids, sustainable green polymeric nanoconstructs, chitosan-based nanogels, and multifunctional hybrid nanogels. The book provides all available information about these materials and describes in detail their advantages and disadvantages and the areas where they could be utilized successfully.
Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors addresses brain anatomy and tumors and the progress and challenges in delivering drugs across the blood brain barrier. Several chapters are devoted to the latest technologies and advances in nanotechnology, along with practical solutions on how to design more effective nanocarriers for drug and gene delivery. This valuable resource prepares readers to develop novel drug delivery systems for the treatment of brain tumors that further promote the latest nanomedical technologies. Addresses the progress and challenges inherent in delivering drugs across the blood brain barrier and offers strategies to maximize effectiveness Draws upon the experience and expertise of international scientists working in the fields of drug delivery and nanomedicine Considers the future possibilities of nanotechnology for delivering nanocarriers that better diagnose and treat brain tumors
Finish Manufacturing Processes are those final stage processing techniques which are deployed to bring a product to readiness for marketing and putting in service. Over recent decades a number of finish manufacturing processes have been newly developed by researchers and technologists. Many of these developments have been reported and illustrated in existing literature in a piecemeal manner or in relation only to specific applications. For the first time, Comprehensive Materials Finishing integrates a wide body of this knowledge and understanding into a single, comprehensive work. Containing a mixture of review articles, case studies and research findings resulting from R & D activities in industrial and academic domains, this reference work focuses on how some finish manufacturing processes are advantageous for a broad range of technologies. These include applicability, energy and technological costs as well as practicability of implementation. The work covers a wide range of materials such as ferrous, non-ferrous and polymeric materials. There are three main distinct types of finishing processes: Surface Treatment by which the properties of the material are modified without generally changing the physical dimensions of the surface; Finish Machining Processes by which a small layer of material is removed from the surface by various machining processes to render improved surface characteristics; and Surface Coating Processes by which the surface properties are improved by adding fine layer(s) of materials with superior surface characteristics. Each of these primary finishing processes is presented in its own volume for ease of use, making Comprehensive Materials Finishing an essential reference source for researchers and professionals at all career stages in academia and industry. Provides an interdisciplinary focus, allowing readers to become familiar with the broad range of uses for materials finishing Brings together all known research in materials finishing in a single reference for the first time Includes case studies that illustrate theory and show how it is applied in practice
Theory and Applications of Nonparenteral Nanomedicines presents thoroughly analysed data and results regarding the potential of nanomedicines conceived by diverse non-parenteral routes. In the context of nanotechnology-based approaches, various routes such as oral, pulmonary, transdermal, delivery and local administration of nanomedicine have been utilized for the delivery of nanomedicine. This book discusses the non-parenteral application of nanomedicine, its regulatory implications, application of mucus penetrating nanocarrier, and detailed chapters on development of nanomedicines developed for drug delivery by various route. Beginning with a brief introduction to the non-parenteral delivery of nanomedicine and the safety and regulatory implications of the nanoformulations, further chapters discuss the physiology of the biological barriers, the specificity of the nanocarriers as well as their multiple applications. Theory and Applications of Nonparenteral Nanomedicines helps clinical researchers, researchers working in pharmaceutical industries, graduate students, and anyone working in the development of non-parenteral nanomedicines to understand the recent progress in the design and development of nanoformulations compatible with non-parenteral applications. Contains a comprehensive review of non-parenteral nanomedicines Provides analysis of non-parenteral methods of nanomedicines including regulatory implications and future applications Explores a wide range of promising approaches for non-parenteral drug delivery using the latest advancement in nanomedicine written by experts in industry and academia
Applications of Artificial Intelligence Techniques in Engineering
Chemical Functionalization of Carbon Nanomaterials
Handbook of Functional Equations
Theory and Applications of Nonparenteral Nanomedicines
Functional Inequalities
Modern Dispensing and Hospital Pharmacy
Polymers are important and attractive biomaterials for researchers and clinical applications due to the ease of tailoring their chemical, physical and biological properties for target devices. Due to this versatility they are rapidly replacing other classes of biomaterials such as ceramics or metals. As a result, the demand for

biomedical polymers has grown exponentially and supports a diverse and highly monetized research community. Currently worth $1.2bn in 2009 (up from $650m in 2000), biomedical polymers are expected to achieve a CAGR of 9.8% until 2015, supporting a current research community of approximately 28,000+. Summarizing the main advances in biopolymer development of the last decades, this work systematically covers both the physical science and biomedical engineering of the multidisciplinary field. Coverage extends across synthesis, characterization, design consideration and biomedical applications. The work supports scientists researching the formulation of novel polymers with desirable physical, chemical, biological, biomechanical and degradation properties for specific targeted biomedical applications. Combines chemistry, biology and engineering for expert and appropriate integration of design and engineering of polymeric biomaterials Physical, chemical, biological, biomechanical and degradation properties alongside currently deployed clinical applications of specific biomaterials aids use as single source reference on field. 15+ case studies provides in-depth analysis of currently used polymeric biomaterials, aiding design considerations for the future

Nanobiomaterials in Medical Imaging presents the latest developments in medical exploratory approaches using nanotechnology. Leading researchers from around the world discuss recent progress and state-of-the-art techniques. The book covers synthesis and surface modification of multimodal imaging agents, popular examples of nanoparticles and their applications in different imaging techniques, and combinatorial therapy for the development of multifunctional nanocarriers. The advantages and potential of current techniques are also considered. This book will be of interest to postdoctoral researchers, professors and students engaged in the fields of materials science, biotechnology and applied chemistry. It will also be highly valuable to those working in industry, including pharmaceutics and biotechnology companies, medical researchers, biomedical engineers and advanced clinicians. A valuable resource for researchers, practitioners and students working in biomedical, biotechnological and engineering fields A detailed guide to recent scientific progress, along with the latest application methods Presents innovative opportunities and ideas for developing or improving technologies in nanomedicine and medical imaging

This book will be a comprehensive account of the various facets of nutraceuticals domain. The peruser of this book will find details on various nanotech approaches to nutraceuticals, prebiotics and probiotics, along with their specific applications.

Traditional practice as well as orientation of Dispensing and Hospital Pharmacy has undergone drastic changes. The spectrum of activities of the pharmacists involved in Dispensing and Hospital Pharmacy is widening with a greater focus and emphasis on health care delivery. The book 'Modern Dispensing and Hospital Pharmacy' comprises chapters such as Genesis and Evaluation of Pharmacy, Principles of Dispensing, Prescription, Pharmaceutical Calculation, Posology, Mixtures, Solutions, Emulsions, Powders, Lotions and Liniments, Suspensions, Ointments and Miscellaneous Preparations, Extraction and Galenical Products, and Incompatibility. This book also covers Organization of a Hospital Pharmacy, Drug Distribution, Drug Information Centre, Hospital Management and Records as applicable in modern hospital pharmacy. The main aim of writing this book is to present up to date knowledge to maintain a balance between the traditional and the modern techniques of dispensing and hospital pharmacy. An attempt has been made to include the newer concepts and latest knowledge relevant to a pharmacist as a member of health care delivery system

Health Education and Community Pharmacy

Recent Advances in Plant Biotechnology and Its Applications

Towards Catalytic, Material and Biomedical Uses

Organisational BehaviourVo. 1 Vol 1

Basic and Advanced Finishing and Polishing Processes

Applications of Nanobiomaterials

This book offers an innovative approach to studying 'judicial activism' in the Indian context in tracing its history and relevance since 1773. While discussing the varying roles of the judiciary, it delineates the boundaries of different organs of the State — judiciary, executive and legislature — and highlights the points where these boundaries have been breached, especially through judicial interventions in parliamentary affairs and their role in governance and policy. Including a fascinating range of sources such as legal cases, books, newspapers, periodicals, lectures, historical texts and records, the author presents the complex sides of the arguments persuasively, and contributes to new ways of understanding the functioning of the judiciary in India. This paperback edition, with a new Afterword, updates the debates around the raging questions facing the Indian judiciary. It will be of great interest to students and scholars of law, political science and history, as well as legal practitioners and the general reader.

The Future of Pharmaceutical Product Development and Research examines the latest developments in the pharmaceutical sciences, also highlighting key developments, research and future opportunities. Written by experts in the field, this volume in the Advances in Pharmaceutical Product Development and Research series deepens our understanding of the product development phase of drug discovery and drug development. Each

chapter covers fundamental principles, advanced methodologies and technologies employed by pharmaceutical scientists, researchers and the pharmaceutical industry. The book focuses on excipients, radiopharmaceuticals, and how manufacturing should be conducted in an environment that follows Good Manufacturing Practice (GMP) guidelines. Researchers and students will find this book to be a comprehensive resource for those working in, and studying, pharmaceuticals, cosmetics, biotechnology, foods and related industries. Provides an overview of practical information for clinical trials Outlines how to ensure an environment that follows Good Manufacturing Practice (GMP) Examines recent developments and suggests future directions for drug production methods and techniques

The book is a collection of high-quality, peer-reviewed innovative research papers from the International Conference on Signals, Machines and Automation (SIGMA 2018) held at Netaji Subhas Institute of Technology (NSIT), Delhi, India. The conference offered researchers from academic and industry the opportunity to present their original work and exchange ideas, information, techniques and applications in the field of computational intelligence, artificial intelligence and machine intelligence. The book is divided into two volumes discussing a wide variety of industrial, engineering and scientific applications of the emerging techniques.

As Richard Bellman has so elegantly stated at the Second International Conference on General Inequalities (Oberwolfach, 1978), "There are three reasons for the study of inequalities: practical, theoretical, and aesthetic." On the aesthetic aspects, he said, "As has been pointed out, beauty is in the eye of the beholder. However, it is generally agreed that certain pieces of music, art, or mathematics are beautiful. There is an elegance to inequalities that makes them very attractive." The content of the Handbook focuses mainly on both old and recent developments on approximate homomorphisms, on a relation between the Hardy–Hilbert and the Gabriel inequality, generalized Hardy–Hilbert type inequalities on multiple weighted Orlicz spaces, half-discrete Hilbert-type inequalities, on affine mappings, on contractive operators, on multiplicative Ostrowski and trapezoid inequalities, Ostrowski type inequalities for the Riemann–Stieltjes integral, means and related functional inequalities, Weighted Gini means, controlled additive relations, Szasz–Mirakyan operators, extremal problems in polynomials and entire functions, applications of functional equations to Dirichlet problem for doubly connected domains, nonlinear elliptic problems depending on parameters, on strongly convex functions, as well as applications to some new algorithms for solving general equilibrium problems, inequalities for the Fisher's information measures, financial networks, mathematical models of mechanical fields in media with inclusions and holes.

Dendrimers

Intellectual Property and Business

The Power of Intangible Assets

SIGMA 2018, Volume 2

Recent Advances in Mechanical Engineering

The scope of nanotechnology in medical applications has expanded fast in the last two decades. With their unprecedented material properties, nanoscale materials present with unorthodox opportunities in a wide range of domains, including drug delivery and medical imaging. This book assembles the various facets of nanomedicine while discussing key issues such as physicochemical properties that enhance the appeal of nanomedicine. The book is an excellent resource for physicians, PhDs, and postdocs involved in nanomedicine research to learn and understand the scope and complexity of the subject. It begins with a short history of nanotechnology, followed by a discussion on the fundamental concepts and extraordinary properties of nanoscale materials, and then slowly unfolds into multiple chapters illustrating the uses of various nanomaterials in drug delivery, sensing, and imaging.

This book is the first to focus specifically on cancer nanotheranostics. Each of the chapters that make up this comprehensive volume is authored by a researcher, clinician, or regulatory agency member known for their expertise in this field. Theranostics, the technology to simultaneously diagnose and treat a disease, is a nascent field that is growing rapidly in this era of personalized medicine. As the need for cost-effective disease diagnosis grows, drug delivery systems that can act as multifunctional carriers for imaging contrast and therapy agents could provide unique breakthroughs in oncology. Nanotechnology has enabled the development of smart theranostic platforms that can concurrently diagnose disease, start primary treatment, monitor response and initiate secondary treatments if required. In oncology, chemotherapeutics have been routinely used. Some drugs have proven effective but all carry risks of adverse side effects. There is growing interest in using remotely triggered drug delivery systems to limit cytotoxicity in the diseased area. This book reviews the use of theranostic nanoparticles for cancer applications over the past decade. First, it briefly discusses the challenges and limitations of conventional cancer treatments, and presents an overview of the use of nanotechnology in treating cancer. These introductory chapters are followed by those exploring cancer diagnosis and a myriad of delivery methods for nanotherapeutics. The book also addresses multifunctional platforms, treatment monitoring, and regulatory considerations. As a whole, the book aims to briefly summarize the development and clinical potential of various nanotheranostics for cancer applications, and to delineate the challenges that must be overcome for successful clinical development and implementation of such cancer theranostics.

Dendrimer-Based Nanotherapeutics delivers a comprehensive resource on the use of dendrimer-based drug delivery. Advances in the application of nanotechnology in medicine have given rise to multifunctional smart nanocarriers that can be engineered with tunable physicochemical characteristics to deliver one or more therapeutic agent(s) safely and selectively to cancer cells, including intracellular organelle-specific targeting. This book compiles the contribution of dendrimers in the field of nanotechnology to aid researchers in exploring dendrimers in the field of drug delivery and related applications. This book covers the history of the area to the most recent research. The starting chapter covers detailed information about basic properties about dendrimers i.e. properties, nomenclature, synthesis methods, types, characterization of dendrimers, safety and toxicity issues of dendrimers. Further chapters discuss the most recent advancements in the field of dendrimer i.e. dendrimer-drug conjugates, PEGylated dendrimer, dendrimer surface engineering, dendrimer hybrids, dendrimers as solubility enhancement, in targeting and delivery of drugs, as photodynamic therapy, in tissue engineering, as imaging contrast agents, as antimicrobial agents, advances in targeted dendrimers for cancer therapy and future considerations of dendrimers. Dendrimer-Based Nanotherapeutics will help the readers to understand the most recent progress in the field of dendrimer-based research, suitable for pharmaceutical scientists, advanced students, and those working in related healthcare fields. Discusses various routes such as oral, pulmonary, transdermal, delivery and local administration of dendrimer delivery of bioactive Explores a wide range of applications of dendrimer-based drug delivery using the latest advancements in nanomedicine Provides the most recent research on dendrimers as well as context and background, providing a useful resource for all levels of researcher

The second edition of this popular textbook has undergone highly-significant changes in terms of the subject matter, treatment of the topics, and formatting, so as to make it more useful to students and teachers. - Descriptions of diseases has been added to keep pace with the time. - A liberal addition of figures to facilitate learning have bee included. - The glossary is a new addition that will serve as a handy compilation of definitions of common terms. - The question bank has been greatly expanded.

Dendrimer-Based Nanotherapeutics

Concept, Theory and Regulatory Perspectives

Combination Drug Delivery Approach as an Effective Therapy for Various Diseases

Nanobiomaterials in Medical Imaging
Select Proceedings of ICRAME 2020
NanoNutraceuticals
The present book is divided into five sections. The first section deals with the methodology and bioresource generation, techniques related to genetic engineering, and gene transfer to the nuclear genome and chloroplast genome. The new techniques of genome profiling and gene silencing are also presented. The second section of the book deals with the classical aspect of plant biotechnology viz. tissue culture and micropropagation. Use of genetic engineering via Agrobacterium and direct transfer of DNA via particle bombardment to develop transformed plants in Artemesia, castor and orchids, and production of recombinant proteins in plant cells have been dealt with in the third section. The fourth section deals with the abiotic and biotic stress tolerance in plants. The basic biology of some of the stress responses, and designing plants for stress tolerance is discussed in this section. The fifth section deals with medicinal plants and alkaloid production.
Boundaries and Breaches