Drug Release And Dissolution Philadelphia University

This book represents the invited presentations and some of the posters presented at the conference entitled "In Vitro-In Vivo Relationship (IVIVR) Workshop" held in Sep tember, 1996. The workshop was organized by the IVIVR Cooperative Working Group which has drawn together scientists from a number of organizations and institutions, both academic and industrial. In addition to Elan Corporation, which is a drug delivery com pany specializing in the development of ER (Extended Release) dosage forms, the IVIVR Cooperative Working Group consists of collaborators from the University of Maryland at Baltimore, University College Dublin, Trinity College Dublin, and the University of Not tingham in the UK. The principal collaborators are: Dr. Jackie Butler, Elan Corporation Prof. Owen Corrigan, Trinity College Dublin Dr. lain Cumming, Elan Corporation Dr. John Devane, Elan Corporation Dr. Adrian Dunne, University College Dublin Dr. Stuart Madden, Elan Corporation Dr. Colin Melia, University of Nottingham Mr. Tom O'Hara, Elan Corporation Dr. Deborah Piscitelli, University of Maryland at Baltimore Dr. Araz Raoof, Elan Corporation Mr. Paul Stark, Elan Corporation Dr. David Young, University of Maryland at Baltimore The purpose of the workshop was to discuss new concepts and methods in the devel opment of in vitro-in vivo relationships for ER products. The original idea went back ap proximately 15 months prior to the workshop itself. For some time, the principal collaborators had been working together on various aspects of dosage form development.

Describing formulation challenges and their solutions in the design, development, and commercialization of modified-release drugs delivery systems, this book contains eighty papers that review recent developments in design and manufacturing techniques. It includes detailed descriptions of extended release drug products for the oral, nasal, ophthalmic, pulmonary, vaginal, dermal and transdermal pathways. With the exception of the final section addressing regulatory issues, each section covers a particular route for drug delivery and opens with an overview of the anatomical, physiological, and pharmaceutical basics of each route before moving on to cover specific technologies.

Covering everything from certification exam review to key skills, Pharmacy Practice for Today’s Pharmacy Technician: Career Training for the Pharmacy Technician covers all of the knowledge needed by pharmacy technicians to provide exemplary patient care and build a successful career. It describes the role of the pharmacy technician in different practice settings, including the key tasks and skills set required to work in a community pharmacy, institutional pharmacy, or home health and long-term care/hospice care, then adds a road map taking you through certification, the job search, interviewing, and continuing education. Written by pharmacy technician educator and expert LiAnne Webster, this comprehensive text prepares you to succeed in this rapidly growing field. In-depth coverage of medication safety and error prevention includes recent recommendations and actions taken by the Institute of Safe Medication Practices (ISMP) and The Joint Commission. Content on intercultural competence addresses the changing demographics in our society. A student journal on the Evolve companion website makes it easy to submit journal entries relating to your coursework and during externship rotations. Review questions and critical thinking exercises are included at the

end of each chapter. Tech Notes provide practical, on-the-job hints. Tech Alerts focus on warnings to watch for and avoiding common errors.

Properties and Formulation: From Theory to Real-World Application Scientists have attributed more than 40 percent of the failures in new drug development to poor biopharmaceutical properties, particularly water insolubility. Issues surrounding water insolubility can postpone or completely derail important new drug development. Even the much-needed reformulation of currently marketed products can be significantly affected by these challenges. More recently it was reported that the percentage increased to 90% for the candidates of new chemical entities in the discovery stage and 75% for compounds under development. In the most comprehensive resource on the topic, this third edition of Water-Insoluble Drug Formulation brings together a distinguished team of experts to provide the scientific background and step-by-step guidance needed to deal with solubility issues in drug development. Twenty-three chapters systematically describe the detailed discussion on solubility theories, solubility prediction models, the aspects of preformulation, biopharmaceutics, pharmacokinetics, regulatory, and discovery support of water-insoluble drugs to various techniques used in developing delivery systems for water-insoluble drugs. This book includes more than 15 water-insoluble drug delivery systems or technologies, illustrated with case studies and featuring oral and parenteral applications. Highlighting the most current information and data available, this seminal volume reflects the significant progress that has been made in nearly all aspects of this field. The aim of this book is to provide a handy reference for pharmaceutical scientists in the handling of formulation issues related to water-insoluble drugs. In addition, this book may be useful to pharmacy and chemistry undergraduate students and pharmaceutical and biopharmaceutical graduate students to enhance their knowledge in the techniques of drug solubilization and dissolution enhancement.

Generic Drug Product Development: Specialty Dosage Forms explores the issues related to providing evidence of pharmaceutical equivalence and bioequivalence for specialty drug products. It describes various scientific approaches and regulatory requirements for manufacturers who need to demonstrate the therapeutic equivalence of generic specialty drug products to brand name alternatives. The contributors discuss measurement of drug product quality and performance, as well as the regulatory and scientific requirements of topical, nasal and inhalation, and transdermal drug delivery products, along with generic biologics and modified release parenteral drug products. The book is essential reading for specialists and researchers in pharmaceutical drug development, regulation, manufacturing, and others in the pharmaceutical sciences.

With the advent of analytical techniques and capabilities to measure particle sizes in nanometer ranges, there has been tremendous interest in the use of nanoparticles for more efficient methods of drug delivery. Nanoparticulate Drug Delivery Systems addresses the scientific methodologies, formulation, processing, applications, recent trends, and e

This first monograph in the new AAPS book series concisely reviews important aspects of powder and particle systems and the critical quality attributes that should be used as a guide to future developments intended to maximize the control of product quality and performance. Drs. Hickey and Giovagnoli have written an essential primer for any scientists involved in powder or particle

research and manufacturing. It is appropriate for those just entering the field or as a rapid reference for the experienced pharmaceutical scientist. The authors have both academic and industrial experience and the coverage includes solid state chemistry; crystallization; physical processes; particle size and distribution;particle interaction;manufacturing processes;quality by design;and a general discussion of the industry. Pharmaceutical Powder and Particles is intended to concisely review important aspects of powder and particle systems and the critical quality attributes that should be used as a guide to future developments intended to maximize the control of product quality and performance.

The ultimate goal of drug product development is to design a system that maximizes the therapeutic potential of the drug substance and facilitates its access to patients. Pharmaceutical Dosage Forms: Tablets, Third Edition is a comprehensive resource of the design, formulation, manufacture, and evaluation of the tablet dosage form, an

First Published in 1984, this book offers a full, comprehensive guide into drug administration. Carefully compiled and filled with a vast repertoire of notes, pictures, and references this book serves as a useful reference for Students of Medicine, and other practitioners in their respective fields.

This handbook focuses on biopolymers for both environmental and biomedical applications. It shows recent advances in technology in all areas from chemical synthesis or biosynthesis to end use applications. These areas have not been covered in a single book before and they include biopolymers for chemical and biotechnological modifications, material structures, characterization, processing, properties, and applications. After the introduction which summarizes the importance of biopolymer in the market, the book covers almost all the topics related to polysaccharides, biofibers, bioplastics, biocomposites, natural rubber, gums, bacterial and blood compatible polymers, and applications of biopolymers in various fields.

The aim of this book is to present a range of analytical methods that can be used in formulation design and development and focus on how these systems can be applied to understand formulation components and the dosage form these build. To effectively design and exploit drug delivery systems, the underlying characteristic of a dosage form must be understood--from the characteristics of the individual formulation components, to how they act and interact within the formulation, and finally, to how this formulation responds in different biological environments. To achieve this, there is a wide range of analytical techniques that can be adopted to understand and elucidate the mechanics of drug delivery and drug formulation. Such methods include e.g. spectroscopic analysis, diffractometric analysis, thermal investigations, surface analytical techniques, particle size analysis, rheological techniques, methods to characterize drug stability and release, and biological analysis in appropriate cell and animal models. Whilst each of these methods can encompass a full research area in their own right, formulation scientists must be able to effectively apply these methods to the delivery

system they are considering. The information in this book is designed to support researchers in their ability to fully characterize and analyze a range of delivery systems, using an appropriate selection of analytical techniques. Due to its consideration of regulatory approval, this book will also be suitable for industrial researchers both at early stage up to pre-clinical research.

Issues in Pharmacology, Pharmacy, Drug Research, and Drug Innovation: 2011 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Pharmacology, Pharmacy, Drug Research, and Drug Innovation. The editors have built Issues in Pharmacology, Pharmacy, Drug Research, and Drug Innovation: 2011 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Pharmacology, Pharmacy, Drug Research, and Drug Innovation in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Pharmacology, Pharmacy, Drug Research, and Drug Innovation: 2011 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.

Ion-exchange Technology II: Applications presents an overview of the numerous industrial applications of ion-exchange materials. In particular, this volume focuses on the use of ion-exchange materials in various fields including chemical and biochemical separations, water purification, biomedical science, toxic metal recovery and concentration, waste water treatment, catalysis, alcohol beverage, sugar and milk technologies, pharmaceuticals industry and metallurgical industries. This title is a highly valuable source not only to postgraduate students and researchers but also to industrial R&D specialists in chemistry, chemical, and biochemical technology as well as to engineers and industrialists.

The APhA Complete Review for Pharmacy fully revises the previous edition. This indispensable study guide contains the information most relevant to the NAPLEX summarized in abbreviated bullet format.

Long established as a trusted core text for pharmaceutics courses, this gold standard book is the most comprehensive source on pharmaceutical dosage forms and drug delivery systems available today. Reflecting the CAPE, APhA, and NAPLEX® competencies, Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems covers physical pharmacy, pharmacy practice, pharmaceutics, compounding, and dosage forms, as well as the clinical application of the various dosing forms in patient care. This Tenth Edition has been fully updated to reflect new USP standards and features a dynamic new full color design, new coverage of prescription flavoring, and increased coverage of expiration dates.

The largest high-level encyclopedia on molecular medicine is now publishing a topical volume on Nanomedicine. The

long awaited volume gives a comprehensive overview on nanomaterials in drug delivery, imaging and as therapeutics.
Pharmaceutical Dosage Forms: Capsules covers the development, composition, and manufacture of capsules. Despite the important role that capsules play in drug delivery and product development, few comprehensive texts on the science and technology of capsules have been available for the research and academic environments. This text addresses this gap, discussing how capsules provide unique capabilities and options for dosage form design and formulation.
Guides readers on the proper use of in vitro drug release methodologies in order to evaluate the performance of special dosage forms In the last decade, the application of drug release testing has widened to a variety of novel/special dosage forms. In order to predict the in vivo behavior of such dosage forms, the design and development of the in vitro test methods need to take into account various aspects, including the dosage form design and the conditions at the site of application and the site of drug release. This unique book is the first to cover the field of in vitro release testing of special dosage forms in one volume. Featuring contributions from an international team of experts, it presents the state of the art of the use of in vitro drug release methodologies for assessing special dosage forms' performances and describes the different techniques required for each one. In Vitro Drug Release Testing of Special Dosage Forms covers the in vitro release testing of: lipid based oral formulations; chewable oral drug products; injectables; drug eluting stents; inhalation products; transdermal formulations; topical formulations; vaginal and rectal delivery systems and ophthalmics. The book concludes with a look at regulatory aspects. Covers both oral and non-oral dosage forms Describes current regulatory conditions for in vitro drug release testing Features contributions from well respected global experts in dissolution testing In Vitro Drug Release Testing of Special Dosage Forms will find a place on the bookshelves of anyone working with special dosage forms, dissolution testing, drug formulation and delivery, pharmaceutics, and regulatory affairs.
It is important to make therapeutics a critical component of teaching about dosage forms and to make dosage forms and drug delivery systems an integral part of therapeutics. This book will be the first to focus on the therapeutic impact of drug dosage forms.Tying together concepts of traditional pharmaceutics with therapeutics, Drug Delivery Systemsin Pharmaceutical Care demonstrates how the modern clinical pharmacist can integrate knowledge in pharmaceutical sciences and therapeutics with appreciation of patient needs and nuances to advise on preferable and optimal product choices.Each chapter represents a collaboration of a clinical pharmacist practitioner and a pharmaceutical scientist. This unique perspective takes the science of dosage form design and helps translate the theory into the pragmatic.Special Features: Case studies and problems to help students get a better understanding of concepts Well-organized chapters with outlines and objectives Summary tables and helpful figures, along with reasonable compilations of original references Final sections with 'Learning Points' that reinforce essential material. Foreword by William J. Jusko, PhD,

Professor and Chair, University of Buffalo, Department of Pharmaceutical Sciences
A comprehensive guide to the current research, major challenges, and future prospects of controlled drug delivery systems Controlled drug delivery has the potential to significantly improve therapeutic outcomes, increase clinical benefits, and enhance the safety of drugs in a wide range of diseases and health conditions. Fundamentals of Drug Delivery provides comprehensive and up-to-date coverage of the essential principles and processes of modern controlled drug delivery systems. Featuring contributions by respected researchers, clinicians, and pharmaceutical industry professionals, this edited volume reviews the latest research in the field and addresses the many issues central to the development of effective, controlled drug delivery. Divided in three parts, the book begins by introducing the concept of drug delivery and discussing both challenges and opportunities within the rapidly evolving field. The second section presents an in-depth critique of the common administration routes for controlled drug delivery, including delivery through skin, the lungs, and via ocular, nasal, and otic routes. The concluding section summarizes the current state of the field and examines specific issues in drug delivery and advanced delivery technologies, such as the use of nanotechnology in dermal drug delivery and advanced drug delivery systems for biologics. This authoritative resource: Covers each main stage of the drug development process, including selecting pharmaceutical candidates and evaluating their physicochemical characteristics Describes the role and application of mathematical modelling and the influence of drug transporters in pharmacokinetics and drug disposition Details the physiology and barriers to drug delivery for each administration route Presents a historical perspective and a look into the possible future of advanced drug delivery systems Explores nanotechnology and cell-mediated drug delivery, including applications for targeted delivery and toxicological and safety issues Includes comprehensive references and links to the primary literature Edited by a team of of internationally-recognized experts, Fundamentals of Drug Delivery is essential reading for researchers, industrial scientists, and advanced students in all areas of drug delivery including pharmaceutics, pharmaceutical sciences, biomedical engineering, polymer and materials science, and chemical and biochemical engineering.
With a shift toward problem-based learning and critical thinking in many health science fields, professional pharmacy training faces a shift in focus as well. Although the Accreditation Council for Pharmacy Education (ACPE) has recently suggested guidelines for problem solving to be better integrated into pharmacy curriculum, pharmacy books currently available either address this material inadequately or lack it completely. Theory and Practice of Contemporary Pharmaceutics addresses this problem by challenging pharmacy students to think critically in preparation for situations that arise in clinical practice. This book offers a wealth of up-to-date information, organized in a logical sequence, corresponding to the art and science required for formulators in industry and dispensing pharmacists in the community. It

breaks down the subject to its simplest form and includes numerous examples, case studies, and problems. In addition to presenting basic scientific principles, each chapter includes a self-evaluation tutorial designed to help you evaluate your understanding of the subject matter, numerical problems that provide practice in finding mathematical solutions, and case studies that measure your overall grasp of the subject matter by challenging you to craft a plausible solution to a real-life scenario using the concepts presented in that chapter. Written by authors selected from academia, industry, and regulatory agencies, the book presents an objective and balanced view of pharmaceutical science and its application. The authors' insights are extremely helpful to pharmacy students as well as practicing pharmacists involved in the development and/or dispensation of existing and new generation biotechnology-based drug products. This simplified and user-friendly book will present pharmaceutics in a way that it has never been presented before and will help prepare students and pharmacists for the competitive and challenging nature of the professional market.

Drug delivery technologies represent a vast and vital area of Research and Development. The demand for innovative drug delivery systems continues to grow, and this growth continues to drive new developments. Building on the foundation provided by the first edition, Drug Delivery Systems, Second Edition covers the latest developments in both

There has not, until now, been a single up-to-date volume to provide those in drug R&D with practical information on all aspects of solid dispersion technology for drugs. This forthcoming volume finally provides such a guide and reference. The unified presentation by a team of specialists in this field is designed for practical application. Theoretical concepts are covered for a fuller understanding of current techniques. All significant recent developments are included.

Martin's Physical Pharmacy and Pharmaceutical Sciences is considered the most comprehensive text available on the physical, chemical, and biological principles that underlie pharmacology. This 7th Edition puts a stronger focus on the most essential, practical knowledge, and is updated to reflect the broadening scope and diversity of the pharmaceutical sciences. Whether you're a student, teacher, researcher, or industrial pharmaceutical scientist, this respected textbook and reference will help you apply the elements of biology, physics, and chemistry in your work and study. Master the latest knowledge with brand-new chapters on Excipients and Compounding; revised and expanded coverage of interpretive tools, ionic equilibria, biopharmaceutics, diffusion, drug release and dissolution, and drug delivery systems and drug product design; a renewed focus on physical chemistry; and much more. See how physical chemistry principles apply to practice through abundant examples. Focus on the most need-to-know information via Key Concept boxes.

Presenting authoritative and engaging articles on all aspects of drug development, dosage, manufacturing, and regulation, this Third Edition enables the pharmaceutical specialist and novice alike to keep abreast of developments in this rapidly evolving and highly competitive field. A dependable reference tool and constant companion for years to com

Oral Drug Absorption, Second Edition thoroughly examines the special equipment and methods used to test whether drugs are released adequately when administered orally. The contributors discuss methods for accurately establishing and validating in vitro/in vivo correlations for both MR and IR formulations, as well as alternative approaches for MR an

Pharmaceutics is one of the most diverse subject areas in all of pharmaceutical science. In brief, it is concerned with the scientific and technological aspects of the design and manufacture of dosage forms or medicines. An understanding of pharmaceutics is therefore vital for all pharmacists and those pharmaceutical scientists who are involved with converting a drug or a potential drug into a medicine that can be delivered safely, effectively and conveniently to the patient. Now in its fourth edition, this best-selling textbook in pharmaceutics has been brought completely up to date to reflect the rapid advances in delivery methodologies by eye and injection, advances in drug formulations and delivery methods for special groups (such as children and the elderly), nanomedicine, and pharmacognosy. At the same time the editors have striven to maintain the accessibility of the text for students of pharmacy, preserving the balance between being a suitably pitched introductory text and a clear reflection of the state of the art. provides a logical, comprehensive account of drug design and manufacture includes the science of formulation and drug delivery designed and written for newcomers to the design of dosage forms New to this edition New editor: Kevin Taylor, Professor of Clinical Pharmaceutics, School of Pharmacy, University of London. Twenty-two new contributors. Six new chapters covering parenteral and ocular delivery; design and administration of medicines for the children and elderly; the latest in plant medicines; nanotechnology and nanomedicines, and the delivery of biopharmaceuticals. Thoroughly revised and updated throughout.

This book describes the theories, applications, and challenges for different oral controlled release formulations. This book differs from most in its focus on oral controlled release formulation design and process development. It also covers the related areas like preformulation, biopharmaceutics, in vitro-in vivo correlations (IVIVC), quality by design (QbD), and regulatory issues.

Pharmaceutical Dosage FormsCapsulesCRC Press

Applied Pharmaceutics in Contemporary Compounding, Third Edition is designed to convey a fundamental understanding of the principles and practices involved in both the development and the production of compounded dosage forms by applying pharmaceutical principles.

Polymeric materials are now playing an increasingly important role in pharmaceuticals, as well as in sensing devices, in situ prostheses and probes, and microparticle diagnostic agents. This new volume consists of twenty-two recent research-based reports on the developments in these areas of pharmaceutical and biomaterials technology. The reports w

Despite advances in the development of new drugs, a drug may never reach the target organ, or it may be difficult to achieve the necessary level of drug in the body. Large doses can result in serious side effects and can harm normal, as well as diseased, cells and organs, and for this reason it is vital that controlled release and the targeting of delivery systems must evolve in parallel to drug research. Chemical Aspects of Drug Delivery Systems reflects the modern challenge to devise effective drug delivery and targeting systems, giving particular emphasis to recent innovations in the field. Delivery systems described include carbohydrate derivatives, novel nonionic surfactant vesicles and various polymers, including polyacrylates and aqueous shellac solutions, as well as hydrogels. In addition, many of the key issues, such as the understanding of biosystems and targets and the development of materials to provide the deserved carrier and excipient properties for controlled, targeted drug delivery, are considered in depth. This book will be of equal interest to undergraduate, graduate, researcher and those in the pharmaceutical industries, and it complements two previous RSC Special Publications, Encapsulation and Controlled Release and Excipients and Delivery Systems for Pharmaceutical Formulations.

This book is the first text to provide a comprehensive assessment of the application of fundamental principles of dissolution and drug release testing to poorly soluble compounds and formulations. Such drug products are, vis-à-vis their physical and chemical properties, inherently incompatible with aqueous dissolution. However, dissolution methods are required for product development and selection, as well as for the fulfillment of regulatory obligations with respect to biopharmaceutical assessment and product quality understanding. The percentage of poorly soluble drugs, defined in classes 2 and 4 of the Biopharmaceutics Classification System (BCS), has significantly increased in the modern pharmaceutical development pipeline. This book provides a thorough exposition of general method development strategies for such drugs, including instrumentation and media selection, the use of compendial and non-compendial techniques in product development, and phase-appropriate approaches to dissolution development. Emerging topics in the field of dissolution are also discussed, including biorelevant and biphasic dissolution, the use on enzymes in dissolution testing, dissolution of suspensions, and drug release of non-oral products. Of particular interest to the industrial pharmaceutical professional, a brief overview of the formulation and solubilization techniques employed in the development of BCS class 2 and 4 drugs to overcome solubility challenges is provided and is complemented by a collection of chapters that survey the approaches and considerations in developing dissolution methodologies for enabling drug delivery technologies, including nanosuspensions, lipid-based formulations, and stabilized amorphous drug formulations.

Since the earliest dosage forms to modern drug delivery systems, came a great development and growth of knowledge with respect to drug delivery. Strategies to Modify the Drug Release from Pharmaceutical Systems will address principles, systems, applications and advances in the field.It will be principally a textbook and a reference source of strategies to modify the drug release. Moreover, the characterization, mathematical and physicochemical models, applications and the systems will be discussed. Addresses the principles, systems, applications and advances in the field of drug delivery Highlights the mathematical and physicochemical principles related to strategies Discusses drug release and its possible modifications

This book contains the proceedings of the International Symposium on Ophthalmie Drug Delivery, which was held in Pisa in October 1986. Topical ophthalmic therapy is a matter of interest to specialists from different fields (medical, pharmaceutical, chemical, technological, etc.), who, unfortunately, have a tendency to meet separately, thus limiting a diffusion of knowledge, ideas and experience that would greatly favour the overall pro gress in this area of research. The Symposium, for the first time in Europe, provided the opportunity for specialists from different disciplines and from different countfies to meet, to discuss and to share their experience. This multidisciplinary approach is reflected in the wide variety of topics that appear in the book. The papers are aimed at reviewing many of the complex, interrelated, medical pharmaceutical and technological facets of topical ophthalmic therapy. lt is our hope that they may stimulate further thought in this fascinating field, and may provide possible guidelines for future research. The editors wish to express their appreciation to the sponsors of the Symposium: Fidia Research Laboratories, whose generosity permitted the meeting tobe held, and the ltalian National Research Council (CNR, Progetto Finalizzato Chimica Fine e Secondaria) who gave its scientific tutorship. Thanks are also due to the other Symposium contributors, ACRAF SpA, Rome, and Allergan Italia SpA, Rome. The assistance, support and coopera tion given before, during and after the Symposium by Dr. Patrizia Chetoni, Dr. Maria Tilde Torracca and Dr. Elena Parolini arealso gratefully acknowledged.

Analyzes construction of experiments, focusing on variables, models, matrices, and reproducibility. This timely reference systematically examines the basic concepts and theoretical issues, methodologies for experiment and measurement, and practical health applications of emulsions and dispersions-describing formulation problems and identifying potential carriers for the delivery or targeting of new drugs.

Evaluates anionic, cationic, and nonionic surfactants as dispersing, emulsifying, foaming, penetrating, and wetting agents. Written by more than 20 international researchers, Pharmaceutical Emulsions and Suspensions discusses uses of macroemulsions and (submicron) microemulsions illuminates delivery devices such as microparticles, nanospheres, liposomes, and mixed micelles investigates the application of self-emulsifying drug delivery systems (SEDDS) introduces techniques for increasing drug solubility with nanosuspensions addresses stabilization, flocculation, and coagulation problems in pharmaceutical and cosmetic suspensions surveys drug delivery by way of dermatological, follicular, and ocular routes explains the pharmacodynamics, bioavailability, and pharmacokinetics in the drug formulation development process compares and contrasts monomeric and micellar adsorption at oil-water interfaces and more! Containing over 1800 references, tables, equations, drawings, and micrographs, Pharmaceutical Emulsions and Suspensions is an ideal resource for pharmacists; physical, surface, colloid, cosmetic, food, and agricultural chemists; and upper-level undergraduate and graduate students in these disciplines.

PROP - Foundation of Pharmaceutical Care Custom

The focus of this book is on subjects related to drug delivery to the lung. The text spans topics from aerosol deposition through pharmaceutical chemistry and formulation to the final clinical evaluation of pharmaceutical products. Utilizing a multi-disciplinary approach, the chapters consider toxicology from the point of view of drugs and pharmaceutical excipients used in aerosols.

Integrating aspects of physical pharmacy, biopharmaceuticals, drug delivery, and biotechnology, Pharmaceutical Dosage Forms and Drug Delivery elucidates basic physicochemical principles and their application in the design of dosage forms. The author addresses the relevance of these principles to the biopharmaceutical aspects of drugs. He explores the latest developments in the application of biomaterials, including polymers and biotechnology-based agents, to the development of novel dosage forms. The book covers physicochemical principles of dosage design, biopharmaceutical and physiological considerations, types of commonly used pharmaceutical dosage forms, introduction to polymeric biomaterials, protein and nucleic acid-based dosage forms, and novel and targeted drug delivery systems. It highlights the physicochemical parameters used for the design, development, and evaluation of biotechnological dosage forms and describes the biological barriers to drug absorption. Containing the right blend of mathematics, equations, diagrams, pictorials, and other pertinent information, this book provides a unified perspective that creates a greater overall understanding of basic science and cutting-edge technology.