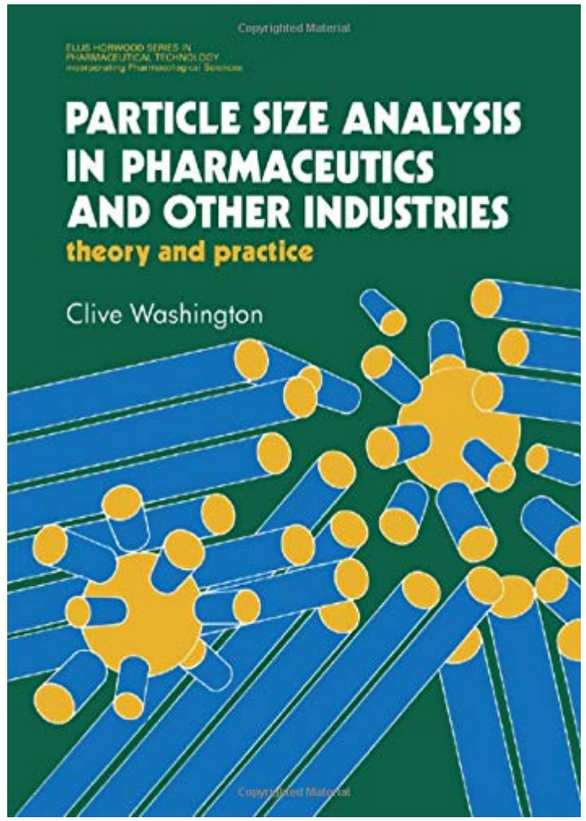

[eBooks] Particle Size Analysis In Pharmaceutics And Other Industries: Theory And Practice (Ellis Horwood Books In The Biological Sciences)

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Particle Size Analysis In Pharmaceutics And Other Industries: Theory And Practice-Clive Washington 2005-07-12 Recent major advances in particle size analysis, particularly with regard to its application in the pharmaceutical and related industries, provides justification for this title. It is a book for technicians and senior technicians, project and development managers, and formulation More...development scientists in a wide range of industries, pharmaceutics and chemical processing in particular. The author, whose research interests have revolved around PSA for some years, discusses the latest advances with information on the selection of equipment and proficiency in operation. As well as offering a broad introduction to PSA, he describes methodologies and compares their advantages and disadvantages.

Automated Microbial Identification and Quantitation-Wayne P. Olson 1996-01-31 This book focuses on practical, proven applications to automate the microbial identification process economically and with greater levels of safety and quality for patients. A diverse group of recognized experts survey the topic and present the latest techniques and technologies for microbial detection. They cover bacteria and yeasts, the technology of automation, equipment, methods, and the validation issues involved in "going automated." They also explore the challenges of detection and quantititation of contaminants in the increasing number of biologic injectable drugs and identify current trends in the industry. Features

Early Drug Development-Fabrizio Giordanetto 2018-06-15 This one-stop reference systematically covers key aspects in early drug development that are directly relevant to the discovery phase and are required for first-in-human studies. Its broad scope brings together critical knowledge from many disciplines, ranging from process technology to pharmacology to intellectual property issues. After introducing the overall early development workflow, the critical steps of early drug development are described in a sequential and enabling order: the availability of the drug substance and that of the drug product, the prediction of pharmacokinetics and -dynamics, as well as that of drug safety. The final section focuses on intellectual property aspects during early clinical development. The emphasis throughout is on recent case studies to exemplify salient points, resulting in an abundance of practice-oriented information that is usually not available from other sources. Aimed at medicinal chemists in industry as well as academia, this invaluable reference enables readers to understand and navigate the challenges in developing clinical candidate molecules that can be successfully used in phase one clinical trials.

Pharmaceutical Suspensions-Alok K. Kulshreshtha 2009-11-05 The suspension dosage form has long been used for poorly soluble active ingre- ents for various therapeutic indications. Development of stable suspensions over the shelf life of the drug product continues to be a challenge on many fronts. A good understanding of the fundamentals of disperse systems is essential in the development of a suitable pharmaceutical suspension. The development of a s- pension dosage form follows a very complicated path. The selection of the proper excipients (surfactants, viscosity imparting agents etc.) is important. The particle size distribution in the finished drug product dosage form is a critical parameter that significantly impacts the bioavailability and pharmacokinetics of the product. Appropriate analytical methodologies and instruments (chromatographs, visco- ters, particle size analyzers, etc.) must be utilized to properly characterize the s- pension formulation. The development process continues with a successful scale-up of the manufacturing process. Regulatory agencies around the world require cli- cal trials to establish the safety and efficacy of the drug product. All of this devel- ment work should culminate into a regulatory filing in accordance with the regulatory guidelines. Pharmaceutical Suspensions, From Formulation Development to Manufacturing, in its organization, follows the development approach used widely in the pharmaceutical industry. The primary focus of this book is on the classical disperse system – poorly soluble active pharmaceutical ingredients s- pended in a suitable vehicle.

Kernel Mean Embedding of Distributions-Krikamol Muandet 2017-06-28 Provides a comprehensive review of kernel mean embeddings of distributions and, in the course of doing so, discusses some challenging issues that could potentially lead to new research directions. The targeted audience includes graduate students and researchers in machine learning and statistics.

Aulton's Pharmaceutics-Michael E. Aulton 2013 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.

Quality by Design for Biopharmaceuticals-Anurag S. Rathore 2011-09-20 The concepts, applications, and practical issues of Quality byDesign Quality by Design (QbD) is a new framework currently beingimplemented by the FDA, as well as EU and Japanese regulatoryagencies, to ensure better understanding of the process so as toyield a consistent and high-quality pharmaceutical product. QbDbreaks from past approaches in assuming that drug quality cannot betested into products; rather, it must be built into every step ofthe product creation process. Quality by Design: Perspectives and Case Studies presentsthe first systematic approach to QbD in the biotech industry. Acomprehensive resource, it combines an in-depth explanation ofbasic concepts with real-life case studies that illustrate thepractical aspects of QbD implementation. In this single source, leading authorities from

thebiotechnology industry and the FDA discuss such topics as: The understanding and development of the product's criticalquality attributes (CQA) Development of the design space for a manufacturingprocess How to employ QbD to design a formulation process Raw material analysis and control strategy for QbD Process Analytical Technology (PAT) and how it relates toQbD Relevant PAT tools and applications for the pharmaceuticalindustry The uses of risk assessment and management in QbD Filing QbD information in regulatory documents The application of multivariate data analysis (MVDA) toQbD Filled with vivid case studies that illustrate QbD at work incompanies today, Quality by Design is a core reference forscientists in the biopharmaceutical industry, regulatory agencies,and students.

Solid State Characterization of Pharmaceuticals-Richard A. Storey 2011-03-31 The field of solid state characterization is central to the pharmaceutical industry, as drug products are, in an overwhelming number of cases, produced as solid materials. Selection of the optimum solid form is a critical aspect of the development of pharmaceutical compounds, due to their ability to exist in more than one form or crystal structure (polymorphism). These polymorphs exhibit different physical properties which can affect their biopharmaceutical properties. This book provides an up-to-date review of the current techniques used to characterize pharmaceutical solids. Ensuring balanced, practical coverage with industrial relevance, it covers a range of key applications in the field. The following topics are included: Physical properties and processes Thermodynamics Intellectual guidance X-ray diffraction Spectroscopy Microscopy Particle sizing Mechanical properties Vapour sorption Thermal analysis & Calorimetry Polymorph prediction Form selection

Analytical Techniques in the Pharmaceutical Sciences-Anette Müllertz 2016-08-30 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.

Colloid and Interface Science in Pharmaceutical Research and Development-Hiroyuki Ohshima 2014-07-23 Colloid and Interface Science in Pharmaceutical Research and Development describes the role of colloid and surface chemistry in the pharmaceutical sciences. It gives a detailed account of colloid theory, and explains physicochemical properties of the colloidal-pharmaceutical systems, and the methods for their measurement. The book starts with fundamentals in Part I, covering fundamental aspects of colloid and interface sciences as applied to pharmaceutical sciences and thus should be suitable for teaching. Parts II and III treat applications and measurements, and they explains the application of these properties and their influence and use for the development of new drugs. Provides a clear description of the fundamentals of colloid and interface science relevant to drug research and development Explains the physicochemical/colloidal basis of pharmaceutical science Lists modern experimental characterization techniques, provides analytical equations and explanations on analyzing the experimental data Describes the most advanced techniques, AFM (Atomic Force Microscopy), SFA (Surface Force Apparatus) in detail

Current Awareness in Particle Technology- 1993

Formulating Poorly Water Soluble Drugs-Robert O. Williams III 2011-12-04 This volume is intended to provide the reader with a breadth of understanding regarding the many challenges faced with the formulation of poorly water-soluble drugs as well as in-depth knowledge in the critical areas of development with these compounds. Further, this book is designed to provide practical guidance for overcoming formulation challenges toward the end goal of improving drug therapies with poorly water-soluble drugs. Enhancing solubility via formulation intervention is a unique opportunity in which formulation scientists can enable drug therapies by creating viable medicines from seemingly undeliverable molecules. With the ever increasing number of poorly water-soluble compounds entering development, the role of the formulation scientist is growing in importance. Also, knowledge of the advanced analytical, formulation, and process technologies as well as specific regulatory considerations related to the formulation of these compounds is increasing in value. Ideally, this book will serve as a useful tool in the education of current and future generations of scientists, and in this context contribute toward providing patients with new and better medicines.

Characterization of Pharmaceutical Nano- and Microsystems-Leena Peltonen 2020-10-16 Learn about the analytical tools used to characterize particulate drug delivery systems with this comprehensive overview Edited by a leading expert in the field, Characterization of Pharmaceutical Nano- and Microsystems provides a complete description of the analytical techniques used to characterize particulate drug systems on the micro- and nanoscale. The book offers readers a full understanding of the basic physicochemical characteristics, material properties and differences between micro- and nanosystems. It explains how and why greater experience and more reliable measurement techniques are required as particle size shrinks, and the measured phenomena grow weaker. Characterization of Pharmaceutical Nano- and Microsystems deals with a wide variety of topics relevant to chemical and solid-state analysis of drug delivery systems, including drug release, permeation, cell interaction, and safety. It is a complete resource for those interested in the development and manufacture of new medicines, the drug development process, and the translation of those drugs into life-enriching and lifesaving medicines. Characterization of Pharmaceutical Nano- and Microsystems covers all of the following topics: An introduction to the analytical tools applied to determine particle size, morphology, and shape Common chemical approaches to drug system characterization A description of solid-state characterization of drug systems Drug release and permeation studies Toxicity and safety issues The interaction of drug particles with cells Perfect for pharmaceutical chemists and engineers, as well as all other industry professionals and researchers who deal with drug delivery systems on a regular basis, Characterization of Pharmaceutical Nano- and Microsystems also belongs on bookshelves of interested students and faculty who interact with this topic.

Solid-State Properties of Pharmaceutical Materials-Stephen R. Byrn 2017-07-12 Presents a detailed discussion of important solid-state properties, methods, and applications of solid-state analysis Illustrates the various phases or forms that solids can assume and discussesvarious issues related to the relative stability of solid forms and tendencies to undergo transformation Covers key methods of solid state analysis including X-ray powder diffraction, thermal analysis, microscopy, spectroscopy, and solid state NMR Reviews critical physical attributes of pharmaceutical materials, mainly related to drug substances, including particle size/surface area, hygroscopicity, mechanical properties, solubility, and physical and chemical stability Showcases the application of solid state material science in rational selection of drug solid forms, analysis of various solid forms within drug substance and the drug product, and pharmaceutical product development Introduces appropriate manufacturing and control procedures using Quality by Design, and other strategies that lead to safe and effective products with a minimum of resources and time

Pharmaceutical Powder Compaction Technology, Second Edition-Metin Çelik 2016-04-19 Compaction of powder constituents—both active ingredient and excipients—is examined to ensure consistent and reproducible disintegration and dispersion profiles. Revised to reflect modern pharmaceutical compacting techniques, this second edition of Pharmaceutical Powder Compaction Technology guides pharmaceutical engineers, formulation scientists, and product development and quality assurance personnel through the compaction formulation process and application. This unique reference covers: The physical structure of pharmaceutical compacts Bonding phenomena that occur during powder compaction Compression mechanisms of pharmaceutical particles Theories and basic principles of powder compaction New topics include: Compaction data analysis techniques The migration of powder constituents into commercial manufacture Instrumentation for compaction Compaction

functionality testing, which is likely to become a USP requirement Design space for compaction Metrics required for scalability in tablet compression Interactive compaction and preformulation database for commonly used excipients

Particle Size Characterization-Ajit Jillavenkatesa 2001

Experimental Pharmaceutics-Eugene L. Parrott 1977

Modern Medicinal Chemistry-John Bodenhan Taylor 1993 This single-volume introduction to various aspects of medicinal chemistry covers a wide range of topics -- from the role of industry and governments, and legal considerations, to biopharmaceutics, pharmacokinetics and pharmacodynamics, drug metabolism, and computing and other modern techniques. Discusses physicochemical principles and drug targeting and delivery systems; the design of new medicines; and drug metabolism -- including clearance, metabolic processes, stereo selectivity, species differences, and metabolic pathways -- for some major drug categories. For practitioners and students of chemistry, pharmacy and pharmaceutical technology, biotechnologists and molecular biologists.

Modern Pharmaceutics-Gilbert S. Banker 1990

Respiratory Drug Delivery (1989)-Peter R. Byron 2018-04-20 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.

Handbook of Pharmaceutical Wet Granulation-Ajit S. Narang 2018-08-31 Handbook of Pharmaceutical Wet Granulation: Theory and Practice in a Quality by Design Paradigm offers a single and comprehensive reference dedicated to all aspects of pharmaceutical wet granulation, taking a holistic approach by combining introductory principles with practical solutions. Chapters are written by international experts across industry, academic and regulatory settings, and cover a wide spectrum of relevant and contemporary wet granulation topics, techniques and processes. The books' focus on process analytical technology, quality by design principles, granulation equipment, modeling, scale-up, control and real time release makes it a timely and valuable resource for all those involved in pharmaceutical wet granulation. Discusses fundamentals of theory and current industrial practice in the field of wet granulation, including product and process design and role of material properties in wet granulation Examines the modern evolution of wet granulation through current topics such as established and novel process analytical technologies (PATs), and product development and scale-up paradigms Written for scientists working within the pharmaceutical industry, as well as academics, regulatory officials and equipment vendors who provide PAT tools and granulation equipment

Particulate Products-Henk G. Merkus 2013-11-19 Particulate products make up around 80% of chemical products, from all industry sectors. Examples given in this book include the construction materials, fine ceramics and concrete; the delicacies, chocolate and ice cream; pharmaceutical, powders, medical inhalers and sun screen; liquid and powder paints. Size distribution and the shape of the particles provide for different functionalities in these products. Some functions are general, others specific. General functions are powder flow and require – at the typical particulate concentrations of these products – that the particles cause adequate rheological behavior during processing and/or for product performance. Therefore, this book addresses particle packing as well as its relation to powder flow and rheological behavior. Moreover, general relationships to particle size are discussed for e.g. color and sensorial aspects of particulate products. Product-specific functionalities are often relevant for comparable product groups. Particle size distribution and shape provide, for example, the following functionalities: - dense particle packing in relation to sufficient strength is required in concrete construction, ceramic objects and pharmaceutical tablets - good sensorial properties (mouthfeel) to chocolate and ice cream - effective dissolution, flow and compression properties for pharmaceutical powders - adequate hiding power and effective coloring of paints for protection and the desired esthetical appeal of the objects - adequate protection of our body against sun light by sunscreen - effective particle transport and deposition to desired locations for medical inhalers and powder paints. Adequate particle size distribution, shape and porosity of particulate products have to be achieved in order to reach optimum product performance. This requires adequate management of design and development as well as sufficient knowledge of the underlying principles of physics and chemistry. Moreover, flammability, explosivity and other health hazards from powders, during handling, are taken into account. This is necessary, since great risks may be involved. In all aspects, the most relevant parameters of the size distribution (and particle shape) have to be selected. In this book, experts in the different product fields have contributed to the product chapters. This provides optimum information on what particulate aspects are most relevant for behavior and performance within specified industrial products and how optimum results can be obtained. It differs from other books in the way that the critical aspects of different products are reported, so that similarities and differences can be identified. We trust that this approach will lead to improved optimization in design, development and quality of many particulate products.

Modern Pharmaceutics: Applications and advances-Alexander Taylor Florence 2009

Pharmaceutical Dosage Forms-Larry L. Augsburger 2017-10-30 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.

Nanoliposomes-Mozafari, Reza M 2005 In the nanotechnology era much of the enhanced speed and effectiveness of equipments, techniques or material is due to their downsizing to nanometric scale. One such enhancement has been occurring in the field of nanoencapsulation. Nanoencapsulation of bioactive materials is a multidisciplinary approach to improve the efficiency and decrease the side effects of drugs, vaccines, cosmetics, slimming agents and nutraceuticals. Nanoliposomes are among the best encapsulation and controlled release systems with the ability to incorporate and protect various types of bioactives as well as deliver them to the target site inside the human or animal body. This book is an ideal source for learning about, or teaching lipid-based carrier systems, including nanoliposomes, archaeosomes, immunoliposomes, virosomes, ultradeformable vesicles and stealth liposomes from basics to post-graduate levels. Several methods of preparation and characterization of these carriers along with their in vitro and in vivo behavior are explained. Application of the nanocarriers in various areas including pharmaceutics, biotechnology, gene delivery and therapy, food technology and origin of life are covered. Particular emphasis is given to the manufacture of carrier systems without employing potentially harmful substances (e.g. volatile solvents or detergents) on small and large scale. The book also contains a unique technical glossary which is especially useful for those new to the field.

Dosage Form Design Considerations- 2018-07-28 Dosage Form Design Parameters, Volume I, examines the history and current state of the field within the pharmaceutical sciences, presenting key developments. Content includes drug development issues, the scale up of formulations, regulatory issues, intellectual property, solid state properties and polymorphism. Written by experts in the field, this volume in the Advances in Pharmaceutical Product Development and Research series deepens our understanding of dosage form design parameters. Chapters delve into a particular aspect of this fundamental field, covering principles, methodologies and the technologies employed by pharmaceutical scientists. In addition, the book contains a comprehensive examination suitable for researchers and advanced students working in pharmaceuticals, cosmetics, biotechnology and related industries. Examines the history and recent developments in drug dosage forms for pharmaceutical sciences Focuses on physicochemical aspects, prefomulation solid state properties and polymorphism Contains extensive references for further discovery and learning that are appropriate for advanced undergraduates, graduate students and those interested in drug dosage design

Light Scattering by Particles in Water-Miroslaw Jonasz 2011-08-29 Light scattering-based methods are used to characterize small particles suspended in water in a wide range of disciplines ranging from oceanography, through medicine, to industry. The scope and accuracy of these methods steadily increases with the progress in light scattering research. This book focuses on the theoretical and experimental foundations of the study and modeling of light scattering by particles in water and critically evaluates the key constraints of light scattering models. It begins with a brief review of the relevant theoretical fundamentals of the interaction of light with condensed matter, followed by an extended discussion of the basic optical properties of pure water and seawater and the physical principles that explain them. The book continues with a discussion of key optical features of the pure water/seawater and the most common components of natural waters. In order to clarify and put in focus some of the basic physical principles and most important features of the experimental data on light scattering by particles in water, the authors employ simple models. The book concludes with extensive critical reviews of the experimental constraints of light scattering models: results of measurements of light scattering and of the key properties of the particles: size distribution, refractive index (composition), structure, and shape. These reviews guide the reader through literature scattered among more than 210 scientific journals and periodicals which represent a wide range of disciplines. A special emphasis is put on the methods of measuring both light scattering and the relevant properties of the particles, because principles of these methods may affect interpretation and applicability of the results. The book includes extensive guides to literature on light scattering data and instrumentation design, as well as on the data for size distributions, refractive indices, and shapes typical of particles in natural waters. It also features a comprehensive index, numerous cross-references, and a reference list with over 1370 entries. An errata sheet for this work can be found at: http://www.tpdsci.com/Ref/Jonasz_M_2007_LightScatE.php *Extensive reference section provides handy compilations of knowledge on the designs of light scattering meters, sources of experimental data, and more *Worked exercises and examples throughout

Tablet Machine Instrumentation in Pharmaceutics-Peter Ridgway Watt 1988

Research Advances in Dynamic Light Scattering-Jaison Jeevanandam 2020-04-25 Dynamic light scattering (DLS) is an important concept that has found applications in the characterization of the biophysical properties of materials for a wide range of applications. DLS studies are extensively employed in material science and engineering to evaluate particle size distribution and surface charge for applications in nanomaterial synthesis, biomolecular analysis, pharmaceutical development and environmental applications. The aim of this book is to provide an overview of research advances relating to the principle and applications of DLS in various fields. The book is divided into two parts Part 1 discusses the uses of DLS in material science and engineering applications and Part 2 focuses on applications of DLS in biological sciences. Chapter 1 aims to provide an overview of the working principle, mathematical models and different types of DLS analysis methods. In addition, recent trends in DLS studies and applications in various fields are also discussed. Chapter 2 discusses the uses of DLS for nanomaterial characterization in terms of the size, size distribution and zeta potential of particles. Chapter 3 compares two techniques (DLS and SAXS) and provides evidence that nanocatalyst can be characterized more effectively by modifying DLS with SAXS. In Chapter 4 the authors demonstrate the application of DLS in characterizing self-assembling and stimuli-responsive di-block copolymers in aqueous media and their association with low molecular weight drugs. Chapter 5 discusses slow and ultraslow dynamics, probed by DLS measurements, in common organic molecular liquids, ionic liquids (ILs), aqueous solutions of salts and molecular solids and liquid-liquid binary mixtures.

Sample Preparation of Pharmaceutical Dosage Forms-Beverly Nickerson 2011-08-05 This book is intended to serve as a resource for analysts in developing and troubleshooting sample preparation methods. These are critical activities in providing accurate and reliable data throughout the lifecycle of a drug product. This book is divided into four parts: • Part One covers dosage form and diluent properties that impact sample preparation of pharmaceutical dosage forms and the importance of sampling considerations in generating data representative of the drug product batch. • Part Two reviews specific sample preparation techniques typically used with pharmaceutical dosage forms. • Part Three discusses sample preparation method development for different types of dosage forms including addressing drug excipient interactions and post extraction considerations, as well as method validation and applying Quality by Design (QbD) principles to sample preparation methods. • Part Four examines additional topics in sample preparation including automation, investigating aberrant potency results, green chemistry considerations for sample preparation and the ideal case where no sample preparation is required for sample analysis.

Chemical Engineering- 1995

Application of Nanotechnology in Drug Delivery-Ali Demir Sezer 2014-07-25 This book collects reviews and original articles from eminent experts working in the interdisciplinary arena of nanotechnology use in drug delivery. From their direct and recent experience, the readers can achieve a wide vision on the new and ongoing potentialities of nanotechnology application of drug delivery. Since 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. On the other hand, this reference discusses advances in design, optimization, and adaptation of gene delivery systems for the treatment of cancer, cardiovascular, pulmonary, genetic, and infectious diseases, and considers assessment and review procedures involved in the development of gene-based pharmaceuticals.

Handbook of Modern Pharmaceutical Analysis-Satinder Ahuja 2010-11-11 Handbook of Modern Pharmaceutical Analysis, Second Edition, synthesizes the complex research and recent changes in the field, while covering the techniques and technology required for today's laboratories. The work integrates strategy, case studies, methodologies, and implications of new regulatory structures, providing complete coverage of quality assurance from the point of discovery to the point of use. Treats pharmaceutical analysis (PA) as an integral partner to the drug development process rather than as a service to it Covers method development, validation, selection, testing, modeling, and simulation studies combined with advanced exploration of assays, impurity testing, biomolecules, and chiral separations Features detailed coverage of QA, ethics, and regulatory guidance (quality by design, good manufacturing practice), as well as high-tech methodologies and technologies from "lab-on-a-chip" to LC-MS, LC-NMR, and LC-NMR-MS

Pharmaceutics and Pharmacy Practice-Gilbert S. Banker 1982

Physical Characterization of Pharmaceutical Solids-Harry G. Brittain 1995-07-19 This unique reference provides the first systematic coverage available in a single-source volume on the application of materials science techniques to the pharmaceutical field-offering a comprehensive program for the physical characterization of raw materials, drug substances, and formulated products.

Text-book of Pharmaceutics-Arthur Owen Bentley 1961

Thermal Analysis of Pharmaceuticals-Duncan Q.M. Craig 2006-12-21 As a result of the Process Analytical Technologies (PAT) initiative launched by the U.S. Food and Drug Administration (FDA), analytical development is receiving more attention within the pharmaceutical industry. Illustrating the importance of analytical methodologies, Thermal Analysis of Pharmaceuticals presents reliable and versatile charac

Granularity in Materials Science-George Kyzas 2018-10-24 Granular materials are a special topic of recent research and are a milestone of science and technology. These materials are very simple: they are large conglomerations of discrete macroscopic particles. Granular materials have a broad area of development, which is growing rapidly day by day. Their impact on commercial applications and academia and education is huge. The basic points of this book are the important applications and properties of granular materials. For example, special mention is made of rheological points, shapes, and civil engineering aspects.

Pharmaceutical Microscopy-Robert Allen Carlton 2011-05-04 Microscopy plays an integral role in the research and development of new medicines. Pharmaceutical Microscopy describes a wide variety of techniques together with numerous practical applications of importance in drug development. The first section presents general methods and applications with an emphasis on the physical science aspects. Techniques covered include optical crystallography, thermal microscopy, scanning electron microscopy, energy dispersive x-ray spectrometry, microspectroscopy (infrared and Raman), and particle size and shape by image analysis. The second section presents applications of these techniques to specific topics of pharmaceutical interest, including studies of polymorphism, particle size and shape analysis, and contaminant identification. Pharmaceutical Microscopy is designed for those scientists who must use these techniques to solve pharmaceutical problems but do not need to become expert microscopists. Consequently, each section has exercises designed to teach the reader how to use and apply the techniques in the book. Although the focus is on pharmaceutical development, workers in other fields such as food science and organic chemistry will also benefit from the discussion of techniques and the exercises. Provides comprehensive coverage of key microscopy techniques used in pharmaceutical development Helps the reader to solve specific problems in pharmaceutical quality assurance Oriented and designed for pharmaceutical scientists who need to use microscopy but are not expert microscopists Includes a large number of practical exercises to give the reader hands-on experience with the techniques Written by an author with 21 years of experience in the pharmaceutical industry

Pharmaceutical Powder and Particles-Anthony J. Hickey 2018-08-13 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.