Pharmaceutical Analysis By Higuchi

Vols. -3: Edited by Roger E. Schirmer.
Pharmaceutical Analysis. [By Various Authors.] Editors: T. Higuchi and E. Brochmann-Hanssen, EtcPharmaceutical AnalysisPharmaceutical AnalysisPharmaceutical AnalysisHandbook of Modern Pharmaceutical Analysis
Analytical Profiles of Drug Substances and Excipients
Developments and Applications
Analytical Profiles of Drug Substances and Excipients
Mod Methods of Pharmaceutical Analysis
Pharmaceutical Drug Analysis

This book describes the role modern pharmaceutical analysis plays in the development of new drugs. Detailed information is provided as to how the quality of drug products is assured from the point of discovery until the patient uses the drug. Coverage includes state-of-the-art topics such as analytics for combinatorial chemistry and high-throughput screening, formulation development, stability studies, international regulatory aspects and documentation, and future technologies that are likely to impact the field. Emphasis is placed on current, easy-to-follow methods that readers can apply in their laboratories. No book has effectively replaced the very popular text, Pharmaceutical Analysis, that was edited in the 1960s by Tak Higuchi. This book will fill that gap with an up-to-date treatment that is both handy and authoritative.

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

In recent years, emerging trends in the design and development of drug products have indicated ever greater need for integrated characterization of excipients and in-depth understanding of their roles in drug delivery applications. This book presents a concise summary of relevant scientific and mechanistic information that can aid the use of excipients in formulation design and drug delivery applications. Each chapter is contributed by chosen experts in their respective fields, which affords truly in-depth perspective into a spectrum of excipient-focused topics. This book captures current subjects of interest – with the most up to date research updates – in the field of pharmaceutical excipients. This includes areas of interest to the biopharmaceutical industry users, students, educators, excipient manufacturers, and regulatory bodies alike.

Handbook of Pharmaceutical Analysis
Comprehensive Organometallic Analysis
Physical Chemical and Biopharmaceutical Principles in the Pharmaceutical Sciences
Excipient Applications in Formulation Design and Drug Delivery

Aqueous solubility is one of the major challenges in the early stages of drug discovery. One of the most common and effective methods for enhancing solubility is the addition of an organic solvent to the aqueous solution. Along with an introduction to cosolvency models, the Handbook of Solubility Data for Pharmaceuticals provides an extensive database of solubility for pharmaceuticals in mono solvents and binary solvents. Aqueous solubility data can be found in the Handbook of Aqueous Solubility Data by Samuel Yalkowsky and Yan He. Visit www.crcpress.com for more information. In addition to the experimental efforts to measure the solubility of drugs in mono and mixed solvents, this book discusses the advantages and limitations of a number of mathematical models used to predict the solubility in mono or mixed solvent systems. It covers the pharmaceutical cosolvents and other organic solvents that are used in syntheses, separations, and other pharmaceutical processes. The solutes featured include the available data for official drugs, drug candidates, precursors of drugs, metabolites, and degradation products of pharmaceuticals. The author also presents the solubilities of amino acids since they play an important role in peptide drug properties. Collecting drug solubilities in various cosolvents, this time-saving handbook includes the mixtures and model constants needed to predict undetermined solubilities. It describes mathematical models that enable data to be derived and provides estimates on how drugs are likely to behave in a given cosolvent. A software program and associated user manual are available on the author's website.

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

Each no. represents the results of the FDA research programs for half of the fiscal year.
Pharmaceutical Analysis
Aulton's Pharmaceutics

Santiago de Compostela, Spain, May 31–June 3, 1998

It is now some sixteen years since the author's first series of books on the analysis of organometallic compounds. Many developments in the subject have occurred since that time and a new book on the subject is now overdue. The present book aims to provide a comprehensive review of the subject. It covers not only all aspects of the analysis of organometallic compounds but also contains two additional chapters, dealing with environmental analysis and the use of chelates of metals in the determination of very low concentrations of organic metals. Whilst reviewing the literature for the present book, it was observed that whereas papers published prior to 1973 dealt almost exclusively with various forms of analysis, a high proportion of those published during the past ten years were concerned with the application of proven or newly developed methods to the determination of organometallic compounds in environmental samples such as water, air, soil, river and ocean sediments, fish life and biota samples. An increasing range of elements including mercury, lead, arsenic, tin, antimony, selenium and manganese are now being found in organically bound forms in the environment, some resulting from pollution, others formed in nature by bacterial processes. As many of these substances have appreciable implications to human and animal health and the ecosystem as a whole, it was considered that it would be timely to include a separate chapter in the book devoted entirely to this subject.

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 cutting-edge reference clearly explains pharmaceutical transport phenomena, demonstrating applications ranging from drug or nutrient uptake into vesicle or cell suspensions, drug dissolution and absorption across biological membranes, whole body kinetics, and drug release from polymer reservoirs and matrices to heat and mass transport in freeze-drying and hygroscopicity. Focuses on practical applications of drug delivery from a physical and mechanistic perspective, highlighting biological systems. Written by more than 30 international authorities in the field, Transport Processes in Pharmaceutical Systems discusses the crucial relationship between the transport process and thermodynamic factors analyzes the dynamics of diffusion at liquid-liquid, liquid-solid, and liquid-cultured cell interfaces covers prodrug design for improving membrane transport addresses the effects of external stimuli in altering some natural and synthetic polymer matrices examines properties of hydrogels, including synthesis, swelling degree, swelling kinetics, permeability, biocompatibility, and biodegradability presents mass transfer of drugs and pharmacokinetics based on mass balance descriptions and more! Containing over 1000 references and more than 1100 equations, drawings, photographs, micrographs, and tables, Transport Processes in Pharmaceutical Systems is a must-read resource for research pharmacists, pharmaceutical scientists and chemists, chemical engineers, physical chemists, and upper-level undergraduate and graduate students in these disciplines.

Drug Autoanalysis Manual

Proceedings of the Ninth International Symposium on Cyclodextrins

A Textbook of Pharmaceutical Analysis

Martin's Physical Pharmacy and Pharmaceutical Sciences

Profiles of Drug Substances, Excipients and Related Methodology

This volume contains the proceedings of the Ninth International Symposium on Cyclodextrins, held in Santiago de Compostela, Spain, May 31 - June 3, 1998. The papers collected represent a summary of the last two years' achievements in the application of cyclodextrins in such diverse fields as pharmaceuticals, biotechnology, textiles, chromatography and environmental sciences. Highlights: Chiral selection of chemicals, nuclear waste management, cyclodextrins in nasal drug delivery, cyclodextrins in pulmonary drug delivery, cyclodextrins as pharmaceutical excipients, pharmacokinetics, stabilization of drugs by cyclodextrins, structural characterization of cyclodextrin complexes by nuclear magnetic resonance and molecular modeling, artificial receptors, large cyclodextrins, cyclodextrins as enzyme models, new cyclodextrin derivatives and potentials. Audience: This book will be of interest to researchers whose work involves biotechnology, pharmaceuticals, food and chemicals and chromatographic methods, as well as fundamental cyclodextrin research.

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

The Design and Manufacture of Medicines

Profiles of Drug Substances, Excipients and Related Methodology

Transport Processes in Pharmaceutical Systems

Spectroscopic Analyses

Exploring the analysis of pharmaceuticals, including polymorphic forms, this book discusses regulatory requirements in

pharmaceutical product development and pharmaceutical testing. It covers methods of drug separation and procedures such as capillary electrophoresis for chromatographic separation of molecules. Additional topics include drug formulation analysis using vibrational and magnetic resonance spectroscopy and identification of drug metabolites and decomposition products using such techniques as mass spectrometry. The book provides more than 300 tables, equations, drawings, and photographs, and convenient, easy-to-use indices, facilitating quick access to each topic.

Recent Advances in Analytical Techniques is a series of updates in techniques used in chemical analysis. Each volume presents information about a selection of analytical techniques. Readers will find information about developments in analytical methods such as chromatography, electrochemistry, optical sensor arrays for pharmaceutical and biomedical analysis. Novel Developments in Pharmaceutical and Biomedical Analysis is the second volume of the series and covers the following topics: o Chromatographic assays of solid dosage forms and their drug dissolution studies o UHPLC method for the estimation of bioactive compounds o HILIC based LC/MS for metabolite analysis o In vitro methods for the evaluation of oxidative stress o Application of vibrational spectroscopy in studies of structural polymorphism of drugs o Electrochemical sensors based on conductive polymers and carbon nanotubes o Optical sensor arrays for pharmaceutical and biomedical analyses o Chemical applications of ionic liquids o New trends in enantioanalysis of pharmaceutical compounds.

The book presents developments and applications of these methods, such as NMR, mass, and others, including their applications in pharmaceutical and biomedical analyses. The book is divided into two sections. The first section covers spectroscopic methods, their applications, and their significance as characterization tools; the second section is dedicated to the applications of spectrophotometric methods in pharmaceutical and biomedical analyses. This book would be useful for students, scholars, and scientists engaged in synthesis, analyses, and applications of materials/polymers.

Handbook of Pharmaceutical Salts Properties, Selection, and Use

Quantitative Analysis of Drugs in Pharmaceutical Formulations

Handbook of Solubility Data for Pharmaceuticals

Novel Developments in Pharmaceutical and Biomedical Analysis

This book provides an overview of the state of the art in pharmaceutical applications of UV-VIS spectroscopy. This book presents the fundamentals for the beginner and, for the expert, discusses both qualitative and quantitative analysis problems. Several chapters focus on the determination of drugs in various matrices, the coupling of chromatographic and spectrophotometric methods, and the problems associated with the use of chemical reactions prior to spectrophotometric measurements. The final chapter provides a survey of the spectrophotometric determination of the main families of drugs, emphasizing the achievements of the last decade.

Studies of thermodynamics often fail to demonstrate how themathematical intricacies of the subject relate to practicallaboratory applications. Thermodynamics of Pharmaceutical Systemsmakes these connections clear, emphasizing specific applications topharmaceutical systems in a study created specifically forcontemporary curriculums at colleges of pharmacy. Students investigating drug discovery, drug delivery, and drugaction will benefit from Kenneth Connors ' s authoritativetreatment of the fundamentals of thermodynamics as well as hisattention to drug molecules and experimental considerations. Anextensive appendix that reviews the mathematics needed to masterthe pharmacy curriculum proves an invaluable reference. Connorsdivides his one-of-a-kind text into three sections: BasicThermodynamics, Thermodynamics of Physical Processes, andThermodynamics of Chemical Processes; chapters include: Energy and the First Law of Thermodynamics The Entropy Concept Phase Transformations Solubility Acid-Base Equilibria Noncovalent Binding Equilibria Thermodynamics need not be a mystery nor be confined to therealm of mathematical theory. Thermodynamics of PharmaceuticalSystems introduces students of pharmacy to the profoundthermodynamic applications in the laboratory while also serving asa handy resource for practicing researchers.

This volume offers a comprehensive guide on the theory and practice of amorphous solid dispersions (ASD) for handling challenges associated with poorly soluble drugs. In twenty-three inclusive chapters, the book examines thermodynamics and kinetics of the amorphous state and amorphous solid dispersions, ASD technologies, excipients for stabilizing amorphous solid dispersions such as polymers, and ASD manufacturing technologies, including spray drying, hot melt extrusion, fluid bed layering and solvent-controlled micro-precipitation technology (MBP). Each technology is illustrated by specific case studies. In addition, dedicated sections cover analytical tools and technologies for characterization of amorphous solid dispersions, the prediction of long-term stability, and the development of suitable dissolution methods and regulatory aspects. The book also highlights future technologies on the horizon, such as supercritical fluid processing, mesoporous silica, KinetiSol ® , and the use of non-salt-forming organic acids and amino acids for the stabilization of amorphous systems. Amorphous Solid Dispersions: Theory and Practice is a valuable reference to pharmaceutical scientists interested in developing bioavailable and therapeutically effective formulations of poorly soluble molecules in order to advance these technologies and develop better medicines for the future.

Strategies to Modify the Drug Release from Pharmaceutical Systems

Amorphous Solid Dispersions

Pharmaceutical Analysis. [By Various Authors.] Editors: T. Higuchi and E. Brochmann-Hanssen, Etc

Pharmaceutical Analysis Vol. - I

This comprehensive up-to-date guide and information source is an instructive companion for all scientists involved in research and development of drugs and, in particular, of pharmaceutical dosage forms. The editors have taken care to address every conceivable aspect of the preparation of pharmaceutical salts and present the necessary theoretical foundations as well as a wealth of detailed practical experience in the choice of pharmaceutically active salts. Altogether, the contributions reflect the multidisciplinary nature of the science involved in selection of suitable salt forms for new drug products.

This authoritative volume explores advances in the techniques used to measure percutaneous penetration of drugs and chemicals to assess bioavailability and bioequivalence and discusses how they have been used in clinical and scientific investigations. Seven comprehensive sections examine topics including in vitro drug release, topical drugs products, clinical studies, and guidelines and workshop reports, among others. The book also describes how targeted transdermal drug delivery and more sophisticated mathematical modelling can aid in understanding the bioavailability of transdermal drugs. The first edition of this book was an important reference guide for researchers working to define the effectiveness and safety of drugs and chemicals that penetrated the skin. This second edition contains cutting-edge advances in the field and is a key resource to those seeking to define the bioavailability and bioequivalence of percutaneously active compounds to improve scientific and clinical investigation and regulation.

Martin's Physical Pharmacy and Pharmaceutical Sciences is considered the most comprehensive text available on the application of the physical, chemical and biological principles in the pharmaceutical sciences. It helps students, teachers, researchers, and industrial pharmaceutical scientists use elements of biology, physics, and chemistry in their work and study. Since the first edition was published in 1960, the text has been and continues to be a required text for the core courses of Pharmaceutics, Drug Delivery, and Physical Pharmacy. The Sixth Edition features expanded content on drug delivery, solid oral dosage forms, pharmaceutical polymers and pharmaceutical biotechnology, and updated sections to cover advances in nanotechnology.

Ultraviolet-Visible Spectrophotometry in Pharmaceutical Analysis

Theory and Practice

Handbook of Modern Pharmaceutical Analysis

University of Michigan Official Publication

Announcements for the following year included in some vols.

EDRO SARAP Research Technical Reports

Selected Technical Publications

An Introduction for Students of Pharmacy

General Register