Handbook Of Pharmaceutical Excipients 8th Edition Amazon

The conceptualization and formulation of skin care products intended for topical use is a multifaceted and evolving area of science. Formulators must account for myriad skin types, emerging opportunities for product development as well as a very temperamental retail market. Originally published as "Apply Topically" in 2013 (now out of print), this reissued detailed and comprehensive handbook offers a practical approach to the formulation chemist's day-to-day endeavors by: Addressing the innumerable challenges facing the chemist both in design and at the bench, such as formulating with/for specific properties; formulation, processing and production techniques; sensory and elegancy; stability and preservation; color cosmetics; sunscreens; Offering valuable guidance to troubleshooting issues regarding ingredient selection and interaction, regulatory concerns that must be addressed early in development, and the extrapolation of preservative systems, fragrances, stability and texture aids; Exploring the advantages and limitations of raw materials; Addressing scale-up and pilot production process and concerns; Testing and Measurements Methods. The 22 chapters written by industry experts such as Roger L. McMullen, Paul Thau, Hemi Nae, Ada Polla, Howard Epstein, Joseph Albanese, Mark Chandler, Steve Herman, Gary Kelm, Patricia Aikens, and Sam Shefer, along with many others, give the reader

and user the ultimate handbook on topical product development.

Neonatal Formulary is a unique publication that provides comprehensive guidance on the safe use of all the drugs prescribed during pregnancy and commonly given to babies during labour, delivery, and the first year of life. This new edition provides improved and detailed coverage of the many drugs that are given to women during pregnancy and during lactation where the baby's welfare must be borne in mind as well as that of the mother. Thus the whole 'pregnancy through to parenthood' journey is treated as a continuous event with information about drug use and the effects of drugs at all stages of the development from fetus to infant. Containing far more detail than is available in the British National Formulary for Children and with a companion website featuring updates related to specific drugs and dosing, Neonatal Formulary is an essential guide for neonatologists, neonatal nurses, hospital pharmacists, obstetric staff, advanced nurse practitioners and for all health care professionals caring for pregnant women and their infants in the first year of life.

3D printing is forecast to revolutionise the pharmaceutical sector, changing the face of medicine development, manufacture and use. Potential applications range from pre-clinical drug development and dosage form design through to the fabrication of functionalised implants and regenerative medicine. Within clinical pharmacy practice, printing technologies may finally lead to the concept of personalised medicines becoming a reality. This volume aims to be the definitive

resource for anyone thinking of developing or using 3D printing technologies in the pharmaceutical sector, with a strong focus on the translation of printing technologies to a clinical setting. This text brings together leading experts to provide extensive information on an array of 3D printing techniques, reviewing the current printing technologies in the pharmaceutical manufacturing supply chain, in particular, highlighting the state-of-the-art applications in medicine and discussing modern drug product manufacture from a regulatory perspective. This book is a highly valuable resource for a range of demographics, including academic researchers and the pharmaceutical industry, providing a comprehensive inventory detailing the current and future applications of 3D printing in pharmaceuticals. Abdul W. Basit is Professor of Pharmaceutics at the UCL School of Pharmacy, University College London, Abdul's research sits at the interface between pharmaceutical science and gastroenterology, forging links between basic science and clinical outcomes. He leads a large and multidisciplinary research group, and the goal of his work is to further the understanding of gastrointestinal physiology by fundamental research. So far, this knowledge has been translated into the design of new technologies and improved disease treatments, many of which are currently in late-stage clinical trials. He has published over 350 papers, book chapters and abstracts and delivered more than 250 invited research presentations. Abdul is also a serial entrepreneur and has filed 25 patents and founded 3 pharmaceutical companies (Kuecept, Intract Pharma, FabRx). Abdul is a

frequent speaker at international conferences, serves as a consultant to many pharmaceutical companies and is on the advisory boards of scientific journals, healthcare organisations and charitable bodies. He is the European Editor of the International Journal of Pharmaceutics. Abdul was the recipient of the Young Investigator Award in Pharmaceutics and Pharmaceutical Technology from the American Association of Pharmaceutical Scientists (AAPS) and is the only non-North American scientist to receive this award. He was also the recipient of the Academy of Pharmaceutical Sciences (APS) award. Simon Gaisford holds a Chair in Pharmaceutics and is Head of the Department of Pharmaceutics at the UCL School of Pharmacy, University College London. He has published 110 papers, 8 book chapters and 4 authored books. His research is focused on novel technologies for manufacturing medicines, particularly using ink-jet printing and 3D printing, and he is an expert in the physico-chemical characterisation of compounds and formulations with thermal methods and calorimetry. eaders will find this book to be the most comprehensive source on pharmaceutical dosage forms and drug delivery systems. Physical Pharmacy Capsules highlight key concepts with boxes, providing easy reference. Reflecting traditional pharmaceutics pedagogy, the new edition is organized by dosage form rather than by route of administration

An internationally acclaimed reference work recognized as one of the most authoritative and comprehensive sources of information on excipients used in pharmaceutical formulation with this new edition

providing 340 excipient monographs. Incorporates information on the uses, and chemical and physical properties of excipients systematically collated from a variety of international sources including: pharmacopeias, patents, primary and secondary literature, websites, and manufacturers' data; extensive data provided on the applications, licensing, and safety of excipients; comprehensively cross-referenced and indexed, with many additional excipients described as related substances and an international supplier's directory and detailed information on trade names and specific grades or types of excipients commercially available.

Adopting a practical approach, the authors provide a detailed interpretation of the existing regulations (GMP, ICH), while also discussing the appropriate calculations, parameters and tests. The book thus allows readers to validate the analysis of pharmaceutical compounds while complying with both the regulations as well as the industry demands for robustness and cost effectiveness. Following an introduction to the basic parameters and tests in pharmaceutical validation, including specificity, linearity, range, precision, accuracy, detection and quantitation limits, the text focuses on a life-cycle approach to validation and the integration of validation into the whole analytical quality assurance system. The whole is rounded off with a look at future trends. With its first-hand knowledge of the industry as well as regulating bodies, this is an invaluable reference for analytical chemists, the pharmaceutical industry, pharmaceutists, QA officers, and public authorities.

Students and faculty alike have attested to the extraordinary success rate of the Lippincott's Illustrated Reviews -- the unparalleled review texts that clarify the essentials students need to know for the Boards through an easy-to-use outline format. Now, this review series offers this updated Millennium Edition of Lippincott's Illustrated Review: Pharmacology, Second Edition that includes an updated and comprehensive insert containing information on important new drugs introduced since 1996. The index has been fully revised to reflect the additional information found within the text. Designed and edited by top educators, the book helps the student tie together the visual and cognitive elements of learning for superior recognition and recall. Many updated figures and tables, carefully crafted to complement and amplify the text, are completely integrated with the text. Infolink cross-references between the Pharmacology and Biochemistry volumes of the series, enabling students to interrelate the two disciplines.

The CABI Encyclopedia of Forest Trees provides an extensive overview of 300 of the world's most important forest trees. Tropical, subtropical, temperate and boreal trees of major economic importance are included, covering tree species used in agroforestry practices around the world. Many of the species covered are considered to be multipurpose trees with uses extending beyond timber alone; the land uses such as watershed protection or provision of windbreaks, and non-wood uses such as the production of medicines, resins, food and forage, are also listed. Comprehensive information is

presented on each tree's importance, with a summary of the main characteristics of the species, its potential for agroforestry use and any disadvantages it possesses. The tree's botanical features such as habit, stem form. foliage, inflorescence, flower and fruit characters and phenology are covered in detail with over 70 color plate pictures to aid identification. Also included are specific sections devoted to pests and diseases, distribution and silvicultural characteristics and practices, including seed sowing, nursery care, planting, thinning, and harvesting. In addition to the wealth of information detailed, based on datasheets from CABI's Forestry Compendium, selected references for further reading are provided for each entry, making this book an essential reference work for forestry students, researchers and practitioners. A collection of recommended procedures for analysis and specifications for the determination of pharmaceutical substances, excipients and dosage forms intended to serve as source material for reference by any WHO member state.

Describes the chemical and physical properties of pharmaceutical excipients. Each monograph contains nonproprietary names, synonyms, chemical name and CAS registry number, empirical formula and molecular weight, structural formula, functional category, applications in pharmaceutical formulation or technology, description, pharmacopeial specifications, typical propertics, stability and storage conditions, incompatibilities, method of manufacture, safety, handling precautions, regulatory status, pharmacopeias, related substances, comments, specific references,

general references, and authors.

Describes tradename products and generic chemicals and materials, available from worldwide manufacturers, that function as pharmaceutical additives. Entires include chemical description, uses, regulatory, properties, and storage.

The Process of New Drug Discovery and Development presents a practical methodology for maximizing the ability of a multidisciplinary research team to discover and bring new drugs to the marketplace. It includes detailed discussions regarding the research process and presents critiques of the governmental regulatory aspects of pharmaceutical research. The author also addresses the controversy surrounding the use of animals in biomedical research and provides current information regarding the field of biotechnology, international drug research, and registration activities. The Process of New Drug Discovery and Development is an excellent "how to" text for pharmaceutical researchers, oncologists, biochemists, experimental biologists, and others involved in new drug research and development.

Formulation is a key step in the drug design process, where the active drug is combined with other substances that maximise the therapeutic potential, safety and stability of the final medicinal product. Modern formulation science deals with biologics as well as small molecules. Regulatory and quality demands, in addition to advances in processing technologies, result in growing challenges as well as possibilities for the field. Pharmaceutical Formulation provides an up to date

source of information for all who wish to understand the principles and practice of formulation in the drug industry. The book provides an understanding of the links between formulation theory and the practicalities of processing in a commercial environment, giving researchers the knowledge to produce effective pharmaceutical products that can be approved and manufactured. The first chapters introduce readers to different dosage forms, including oral liquid products, topical products and solid dosage forms such as tablets and capsules. Subsequent chapters cover pharmaceutical coatings, controlled release drug delivery and dosage forms designed specifically for paediatric and geriatric patients. The final chapter provides an introduction to the vital role intellectual property plays in drug development. Covering modern processing methods and recent changes in the regulatory and quality demands of the industry, Pharmaceutical Formulation is an essential, up to date resource for students and researchers working in academia and in the pharmaceutical industry.

This is the second edition of a work on pharmaceutical excipients. It has been expanded and revised to include 203 monographs for pharmacopoeital and non-pharmacopoeital excipients. The appendices include a substantial suppliers' directory. All the physical properties of excipients are included. New monographs in this edition are: acesulfame potassium; albumin; alpha tocopherol; ascorbyl palmitate; aspartame; benzethonium chloride; bronopol; croscarmellose sodium; crospovidone; cyclodextrins; dextrates; fructose;

glyceryl palmitostearate; imidurea; maltodextrin; maltol; medium chain triglycerides; menthol; nitrogen; phenol; propyl gallate; sodium cyclamate; sodium stearyl fumarate; soybean oil; sugar spheres; tartaric acid; tetrafluoroethane; vanillin; hydrogenated vegetable oil; xanthan gum.

This handbook features contributions from a team of expert authors representing the many disciplines within science, engineering, and technology that are involved in pharmaceutical manufacturing. They provide the information and tools you need to design, implement, operate, and troubleshoot a pharmaceutical manufacturing system. The editor, with more than thirty years' experience working with pharmaceutical and biotechnology companies, carefully reviewed all the chapters to ensure that each one is thorough, accurate, and clear.

Provides data on the additives used to convert pharmacologically active compounds into dosage forms suitable for administration to patients. Data includes: nonproprietary names, functional category, synonyms, chemical names and CAS Registry number, empirical formula, molecular weight, structural formula, commercial availability, method of manufacture, description, pharmacopeial specifications, typical properties, stability and storage conditions, incompatibilities, safety, handling precautions, regulatory acceptance, applications in pharmaceutical formulation or technology, use, related substances, comments, and specific references.

Introduction to Pharmaceutical Calculations is an

essential study aid for pharmacy students. The book contains worked examples and sample questions and answers.

The U.S. Food and Drug Administration (FDA) has approved dozens of hormone therapy products for men and women, including estrogen, progesterone, testosterone, and related compounds. These products have been reviewed for safety and efficacy and are indicated for treatment of symptoms resulting from hormonal changes associated with menopause or other endocrine-based disorders. In recent decades, an increasing number of health care providers and patients have turned to customformulated, or compounded, drug preparations as an alternative to FDA-approved drug products for hormone-related health concerns. These compounded hormone preparations are often marketed as "bioidentical" or "natural" and are commonly referred to as compounded bioidentical hormone therapy (cBHT). In light of the fast-growing popularity of cBHT preparations, the clinical utility of these compounded preparations is a substantial public health concern for various stakeholders. including medical practitioners, patients, health advocacy organizations, and federal and state public health agencies. This report examines the clinical utility and uses of cBHT drug preparations and reviews the available evidence that would support marketing claims of the safety and effectiveness of Page 11/23

cBHT preparations. It also assesses whether the available evidence suggests that these preparations have clinical utility and safety profiles warranting their clinical use and identifies patient populations that might benefit from cBHT preparations in lieu of FDA-approved BHT.

Parenteral Medications is an authoritative. comprehensive reference work on the formulation and manufacturing of parenteral dosage forms, effectively balancing theoretical considerations with practical aspects of their development. Previously published as a three-volume set, all volumes have been combined into one comprehensive publication that addresses the plethora of changes in the science and considerable advances in the technology associated with these products and routes of administration. Key Features: Provides a comprehensive reference work on the formulation and manufacturing of parenteral dosage forms Addresses changes in the science and advances in the technology associated with parenteral medications and routes of administration Includes 13 new chapters and updated chapters throughout Contains the contributors of leading researchers in the field of parenteral medications Uses full color detailed illustrations, enhancing the learning process The fourth edition not only reflects enhanced content in all the chapters but also highlights the rapidly advancing formulation, processing, manufacturing
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parenteral technology including advanced delivery and cell therapies. The book is divided into seven sectionss: Section 1 - Parenteral Drug Administration and Delivery Devices; Section 2 - Formulation Design and Development; Section 3 - Specialized Drug Delivery Systems; Section 4 - Primary Packaging and Container Closure Integrity; Section 5 - Facility Design and Environmental Control; Section 6 - Sterilization and Pharmaceutical Processing: Section 7 - Quality Testing and Regulatory Requirements Pharmaceutical science deals with the whole spectrum of drug development from start to finish. There are many different facets to the pharmaceutical industry, from initial research to the finished product, including the equipment used, trials performed, and regulations that must be followed. Presenting an overview of all of these different aspects, the Encyclopedia of Pharmaceutical Science and Technology, Fourth Edition is a musthave reference guide for all laboratories and libraries in the pharmaceutical field. Bringing together leaders from every specialty related to pharmaceutical science and technology, this is the single-source reference at the forefront of pharmaceutical R&D. The strength of this work is not only its breadth but also the caliber of contributing writers, all experts in their field, writing on all aspects of pharmaceutical science and technology. The fourth edition offers 29

new chapters ranging from biomarkers, computational chemistry, and contamination control to high-throughput screening, orally disintegrating tablets, and quality by design. The encyclopedia details best practices of equipment used, methods for manufacturing, options for packaging, and routes for drug delivery. The volumes also provide a thorough understanding of the choices behind each method. In addition, the regulations, safety aspects, patent guidance, and methods of analysis are presented. Key Areas Covered: Analytics Biomarkers Dosage forms Drug delivery Formulation Informatics Manufacturing Packaging Processing Regulatory affairs Systems validation This is an authoritative reference source for those practicing in any area of pharmaceutical science and technology, enabling the pharmaceutical specialist and novice alike to keep abreast of developments in this constantly evolving and highly competitive field. * Online version coming soon. Contact us to inquire about subscription options and print/online combination packages. US: (Tel) 1.888.318.2367 / (E-mail) e-reference@taylorandfrancis.com International: (Tel) +44 (0) 20 7017 6062 / (E-mail) online.sales@tandf.co.uk Compaction of powder constituents—both active ingredient and excipients—is examined to ensure consistent and reproducible disintegration and dispersion profiles. Revised to reflect modern Page 14/23

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

This book provides an overview of excipients, their functionalities in pharmaceutical dosage forms, regulation, and selection for pharmaceutical products formulation. It includes development, characterization methodology, applications, and upto-date advances through the perspectives of excipients developers, users, and regulatory experts. Covers the sources, characterization, and harmonization of excipients: essential information for Page 15/23

optimal excipients selection in pharmaceutical development Describes the physico-chemical properties and biological effects of excipients Discusses chemical classes, safety and toxicity, and formulation Addresses recent efforts in the standardization and harmonization of excipients This report is structured in five parts: national framework for traditional and complementary medicine (T&CM); product regulation; practices and practitioners; the challenges faced by countries; and, finally, the country profiles. Apart from the section on practices and practitioners, the report is consistent with the format of the report of the first global survey in order to provide a useful comparison. The section on practices and practitioners, which covers providers, education and health insurance, is a new section incorporated to reflect the emerging trends in T&CM and to gather new information regarding these topics at a national level. All new information received has been incorporated into individual country profiles and data graphs. The report captures the three phases of progress made by Member States: that is, before and after the first WHO Traditional Medicine Strategy (1999-2005), from the first global survey to the second global survey (2005-2012) and from the second survey to the most recent timeline (2012-2018). Stockley's Drug Interactions, now fully revised and revalidated, remains the world's most

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comprehensive and authoritative reference book on drug interactions and provides the busy healthcare professional with quick and easy access to clinically relevant, evaluated and evidence-based information on drug interactions. Contains detailed yet concise monographs: covers interactions between therapeutic drugs, proprietary medicines, herbal medicines, foods, drinks, pesticides and drugs of abuse; based on published sources and fully referenced; provides comprehensive details of the clinical evidence for the interactions under discussion, an assessment of their clinical importance and gives clear guidance on how to manage the interaction in practice; contains over 3,400 monographs; New drugs launched in the last two years added - including drugs such as fesoterodine, several monoclonal antibodies, new antidiabetics (e.g. sitagliptin) new antineoplastics (e.g. dasatinib) and new immunosuppressants (e.g. temsirolimus); updated information on seasonal flu vaccines and antivirals, including all available information on possible interactions with concurrent medication; increased commentary on the involvement of newer mechanisms in drug interactions, such as drug transporter proteins, and other genetic factors that affect the ability of individuals to metabolise medicines. The pharmaceutical industry exists to serve the

community, but over the years it has engaged massively

in corporate crime, with the public footing the bill. This readable study by experts in medicine, law, criminology and public health documents the pr Authored by leading experts from academia, users and manufacturers, this book provides an authoritative account of the science and technology involved in multiparticulate drug delivery systems which offer superior clinical and technical advantages over many other specialized approaches in drug delivery. The book will cover market trends, potential benefits and formulation challenges for various types of multiparticulate systems. Drug solubility, dose, chemistry and therapeutic indications as well as excipient suitability coupled with manufacturing methods will be fully covered. Key approaches for taste-masking, delayed release and extended release of multiparticulates systems are of significant interest, especially their in-vivo and in-vitro performance. In addition, the principles of scale-up, QbD, and regulatory aspects of common materials used in this technology will be explained, as well as recent advances in materials and equipment enabling robust, flexible and cost-effective manufacture. Case studies illustrating best practices will also make the book a valuable resource to pharmaceutical scientists in industry and academia.

Pharmaceutical Excipients is a comprehensive, uniform guide to the uses, properties, and safety of pharmaceutical excipients, and is an essential reference source for those involved in the development, production, control, or regulation of pharmaceutical preparations. Since many pharmaceutical excipients are

also used in other applications, Pharmaceutical Excipients will also be of value to persons with an interest in the formulation or production of confectionery, cosmetics, and food products.

This fully revised edition of Handbook of Pharmaceutical Granulation Technology covers the rapid advances in the science of agglomeration, process control, process modelling, scale-up, emerging particle engineering technologies, along with current regulatory changes presented by some of the prominent scientist and subject matter experts around the globe. Learn from more than 50 global subject matter experts who share their years of experience in areas ranging from drug delivery and pharmaceutical technology to advances in nanotechnology. Every pharmaceutical scientist should own a copy of this fourth edition resource. Key Features: Theoretical discussions covering granulation and engineering perspectives. Covers new advances in expert systems, process modelling and bioavailability Chapters on emerging technologies in particle engineering Updated Current research and developments in granulation technologies An introduction to pharmaceutical chemistry for undergraduate pharmacy, chemistry and medicinal chemistry students. Essentials of Pharmaceutical Chemistry is a chemistry introduction that covers all of the core material necessary to provide an understanding of the basic chemistry of drug molecules. Now a core text on many university courses, it contains numerous worked examples and problems. The 4th edition includes new chapters on Chromatographic Methods of Analysis,

and Medicinal Chemistry - The Science of Drug Design. Lipospheres in Drug Targets and Delivery: Approaches, Methods, and Applications presents an overview of the most recent applications of lipospheres primarily in the field of medicine, pharmaceutics, and biotechnology. It includes chapters on preparation, characterization, delivery (of peptides, proteins, vaccines, nucleic acids), therapeutic applic

Handbook of Pharmaceutical Excipients Chinese Pharmacopoeia 2010 is an official and authoritative compendium of drugs. It covers most traditional Chinese medicines, most western medicines and preparations, giving information on the standards of purity, description, test, dosage, precaution, storage, and the strength for each drug. It is published in three volumes, and contains up to 4567 monographs with 1386 new admissions. In Volume I, it contains monographs of Chinese crude drugs and the prepared slices. Vegetable oil/fat and its extract, the patented Chinese traditional medicines, single ingredient of Chinese crude drug preparations etc. it has 2165 monographs with 1019 new admissions (439 articles of the prepared slice) and 634 revised; Volume II deals with monographs of chemical drugs, antibiotics, biochemical preparations, radiopharmaceuticals and excipients for pharmaceutical use, contains 2271 monographs with 330 new admissions and 1500 revised; Volume III contains biological products, has 131 monographs with 37 new admissions and 94 revised

Martin's Physical Pharmacy and Pharmaceutical Sciences is considered the most comprehensive text Page 20/23

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. Drug metabolism/pharmacokinetics and drug interaction studies have been extensively carried out in order to secure the druggability and safety of new chemical entities throughout the development of new drugs. Recently, drug metabolism and transport by phase II drug metabolizing enzymes and drug transporters, respectively, as well as phase I drug metabolizing enzymes, have been studied. A combination of biochemical advances in the function and regulation of drug metabolizing enzymes and automated analytical technologies are revolutionizing drug metabolism research. There are also potential drug-drug interactions with co-administered drugs due to inhibition and/or induction of drug metabolic enzymes and drug transporters. In addition, drug interaction studies have been actively performed to Page 21/23

develop substrate cocktails that do not interfere with each other and a simultaneous analytical method of substrate drugs and their metabolites using a tandem mass spectrometer. This Special Issue has the aim of highlighting current progress in drug metabolism/pharmacokinetics, drug interactions, and bioanalysis.

Focusing on the application of physical pharmacy, drug design, and drug regulations as they relate to produce effective dosage forms for drug delivery, Integrated Pharmaceutics provides a comprehensive picture of pharmaceutical product design, describing the science and art behind the concepts of dosage form development. Combining physical pharmacy, product design, and regulatory affairs issues in a single book, the authors address topics governing drug regulations of United States, European, and Japanese agencies and detail new regulatory guidelines, including quality by design, design space analysis, and blend sample uniformity.

The first book to introduce molecular modeling and its applications in crystallization - written by leading experts in the field.

With contributions from the fields of pharmacy, dietetics, and medicine, Handbook of Food-Drug Interactions serves as an interdisciplinary guide to the prevention and correction of negative food-drug interactions. Rather than simply list potential food-drug interactions, this book provides explanations

and gives specific recommendations based on th Copyright: d02a439ea90d6bfe6533960c8cc9945e