

Casarett And Doull S Essentials Of Toxicology

Fertilizers have been used extensively around the globe since the Green Revolution, due to the high subsidies. However, extensive fertilizer use exacerbates soil degradation and causes yield stagnation, and as a result threatens food security and soil sustainability, especially in developing countries. This means that sustainable soil and environmental management are vital to provide food and nutritional security for present and future generations. This has led to the International Union of Soil Science (IUSS) declaring 2015-2024 the International Decade of Soils. This book focuses on the impact of sustainable management of soil and environment on improving the functioning of soil-ecosystems and agronomic productivity, and also discusses food security, nutrient cycling, recent advances in INM technologies, eco-friendly cultivation, agricultural practices to reduce greenhouse gas (GHG) emissions, as well as conservation agriculture and its effects, and strategies for soil sustainability. Offering a comprehensive overview of management in the context of the sustainability of soil and the agroecosystems that it supports, it demonstrates the options available and provides insights into restoring soil health and matching soil nutrient supply with crop demand to ensure nutritional security in an eco-friendly environment.

Develop a strong foundation in the concepts and principles of toxicology with this concise and accessible resource For more than 25 years, Casarett & Doull's Toxicology: The Basics of Poison has set the standard for providing thorough, academic, and authoritative information in clear and engaging ways. Distilling the major principles and concepts from that renowned text, Casarett & Doull's Essentials of Toxicology delivers an accessible and highly readable introduction to the science and clinical field of medical toxicology. The book reflects the expertise of more than 60 renowned contributors. Presented in full-color, this new edition builds on the wide success of previous editions, with extensive updates that make the book more clinically relevant to students and beginners in toxicology, pharmacology, pharmacy, and environmental sciences. Chapter-ending self-assessment Q&As and other features make the learning process more effective and efficient. Casarett and Doull's Essentials of Toxicology is organized into seven units: General Principles of Toxicology Disposition of Toxicants Non-organ-directed Toxicity Target Organ Toxicity Toxic Agents Environmental Toxicology Applications of Toxicology Succinct, yet comprehensive, the text covers essential principles, toxicokinetics, how toxic effects are passed on to succeeding generations, how each body system responds to poisons, and the specific effects of a wide range of toxic agents—from pesticides to radiation.

Founded on the paradox that all things are poisons and the difference between poison and remedy is quantity, the determination of safe dosage forms the base and focus of modern toxicology. In order to make a sound determination there must be a working knowledge of the biologic mechanisms involved and of the methods employed to define these mechanisms. While the vastness of the field and the rapid accumulation of data may preclude the possibility of absorbing and retaining more than a fraction of the available information, a solid understanding of the underlying principles is essential. Extensively revised and updated with four new chapters and an expanded glossary, this fifth edition of the classic text, Principles and Methods of Toxicology provides comprehensive coverage in a manageable and accessible format. New topics include 'toxicoponomics', plant and animal poisons, information resources, and non-animal testing alternatives.

Emphasizing the cornerstones of toxicology-people differ, dose matters, and things change, the book begins with a review of the history of toxicology and followed by an explanation of basic toxicological principles, agents that cause toxicity, target organ toxicity, and toxicological testing methods including many of the test protocols required to meet regulatory needs worldwide. The book examines each method or

procedure from the standpoint of technique and interpretation of data and discusses problems and pitfalls that may be associated with each. The addition of several new authors allow for a broader and more diverse treatment of the ever-changing and expanding field of toxicology. Maintaining the high-quality information and organizational framework that made the previous editions so successful, Principles and Methods of Toxicology, Fifth Edition continues to be a valuable resource for the advanced practitioner as well as the new disciple of toxicology. Develop a strong foundation in the concepts and principles of toxicology with this concise and accessible resource Doody's Core Titles for 2021! For more than 25 years, Casarett & Doull's Toxicology: The Basics of Poison has set the standard for providing thorough, academic, and authoritative information in clear and engaging ways. Distilling the major principles and concepts from that renowned text, Casarett & Doull's Essentials of Toxicology delivers an accessible and highly readable introduction to the science and clinical field of medical toxicology. The book reflects the expertise of more than 60 renowned contributors. Presented in full-color, this new edition builds on the wide success of previous editions, with extensive updates that make the book more clinically relevant to students and beginners in toxicology, pharmacology, pharmacy, and environmental sciences. Chapter-ending self-assessment Q&As and other features make the learning process more effective and efficient. Casarett and Doull's Essentials of Toxicology is organized into seven units: General Principles of Toxicology Disposition of Toxicants Non-organ-directed Toxicity Target Organ Toxicity Toxic Agents Environmental Toxicology Applications of Toxicology Succinct, yet comprehensive, the text covers essential principles, toxicokinetics, how toxic effects are passed on to succeeding generations, how each body system responds to poisons, and the specific effects of a wide range of toxic agents—from pesticides to radiation.

Provides an invaluable distillation of key topics in forensic medicine for undergraduate, masters, and postgraduate students Essential Forensic Medicine covers the broad area of the forensic medical sciences, delivering core knowledge in the biomedical sciences, and the law and ethics surrounding them. Concise, accessible chapters cover a wide range of topics from basic forensic identification and examination techniques to forensic toxicology and psychiatry. Written by internationally-recognized experts in the field, this authoritative guide offers complete chapter coverage of the legal system, courts, and witnesses; investigation of the deceased and their lawful disposal; and the duties of a registered medical practitioner and the General Medical Council. It instructs readers on the general principles of scene examination and the medico-legal autopsy including how to interpret the many kinds of injuries one can suffer—including those from blunt impact and sharp force, firearms and explosives, asphyxia and drowning. Further chapters cover sexual offences, child abuse, and using DNA in human identification, mental health, alcohol and drug abuse. A fresh, accessible, up to date textbook on forensic medicine Written by a well-known experts with decades of experience in the field Includes numerous figures and tables, and detailed lists of key information Features numerous case studies to reinforce key concepts and ideas explored within the book Helps students to prepare for examinations and enables practitioners to broaden their understanding of the discipline Part of the "Essential Forensic Science" series, Essential Forensic Medicine is a highly useful guide for advanced undergraduate students, master's students, and new practitioners to the field.

Casarett & Doull's Essentials of Toxicology, Fourth Edition McGraw-Hill Education / Medical

A contribution to the ongoing debate about how to manage the growing risks of anthropogenic chemicals in the environment, Essentials of Toxic Chemical Risk weaves together coverage of the science that underlies toxic chemical risk assessment, the physiological and molecular bases of chemical toxicity, the process of assessing toxic chemical risk to human health and the environment, and the strategies employed in managing it. The book links toxic chemical risk to the real world of people and communities confronted with the vexing problem of how to deal with products that make their lives better but that also harbor a potential for harm. The book introduces the basics of toxicology from a risk

assessment perspective, using a jargon-free, journalistic style that makes scientific concepts accessible to a wide audience without "dumbing down" the science. It covers the fate and transport of chemicals in the environment, dose-effect, animal toxicity testing, human epidemiology, the uptake, distribution, and elimination of toxic chemicals including first-order rate constants and calculations of body burdens, and the cellular basis of cancer and other diseases that can be caused by toxic chemicals. The book also introduces risk management and discusses the balance between precaution and socio-economic benefits, as embodied by the Toxic Substances Control Act, the Canadian Environmental Protection Act, and the European Union's innovative REACH directive (Registration, Evaluation, Authorization, and Restriction of chemicals). Putting equal emphasis on the twin issues of risk assessment and risk management, the author has carefully selected topics that shed light on risk management decisions and cover ecotoxicology and organismic toxicology. The book provides a thorough introduction to the science of toxicology and to the policy debates and scientific uncertainties that make risk management a work in progress.

Essentials of Environmental Health is a clear and comprehensive study of the major topics of environmental health, including a background of the field and "tools of the trade" (environmental epidemiology, environmental toxicology, and environmental policy and regulation); Environmental diseases (microbial agents, ionizing and non-ionizing radiation); and Applications and domains of environmental health (water and air quality, food safety, waste disposal, and occupational health).

The newest addition to the highly regarded Robbins family of pathology references, Robbins Essential Pathology is a concise resource that covers the core knowledge needed for coursework and exams in an integrated, multimedia format designed for today's students. Ideal for use with an integrated medical curriculum, this easy-to-study multimedia package provides reliable Robbins content in a concentrated, highly efficient format, now fully integrated with interactive digital resources (cases, MCQs, images). Efficient, effective, and up to date, this new Robbins learning resource delivers the essential information you need to obtain a strong scientific foundation in pathology. The most concise Robbins text available, providing high-quality content and a case-based approach in a focused, multimedia learning package for coursework and exam preparation. Focuses on the core knowledge of disease mechanisms and essential clinical aspects that medical students need to know. Features more than 500 images and tables that illustrate key disorders and concepts.

"This resource will educate students and pharmacists on traditional drug information topics while providing an extensive background on more recent practice areas. This is a user-friendly text with multiple examples that can be used in education and training, as well as clinical practice. Each chapter includes learning objectives, key terms, examples and cases, and review questions"--

Your comprehensive and current introduction to the fascinating field of Pharmacology, applied to Nursing and Health!

Now fully updated in line with changes in clinical practice, new drugs and research developments. This clear and readable text will guide you through how drugs act within the body coupled with their clinical application. Sections covering social, legal and professional issues are included alongside the scientific principles of pharmacology. Drug groups are considered according to their pharmacological effects, their action on physiological processes and the conditions they are used to treat.

Casarett and Doull's has set the standard for toxicology reference texts for years, and is the market leading title to this day. It serves the general toxicology market, and is to the field what Goodman and Gilman is to pharmacology. The books are often purchased together, and form a knock-out punch along with our DiPiro textbook; combined, these three titles produce millions of dollars in revenue and more than 100,000 in unit sales. Casarett & Doull's is, in other words, one part of a triad that forms the best pharmacology/pharmacy/toxicology collection in all of medical publishing

This book is a good basic guide to the polymers that are used in the construction industry. The types of polymers that can be used are discussed and specific applications are also covered. There is also a very comprehensive section on the health and safety aspects of using polymers in buildings.

This is the second edition of the comprehensive, concise summary of apoptosis research. It covers the major concepts, molecular architecture, the biochemical pathways, and pathophysiological significance of apoptosis. This book provides a guideline of standard biochemical and cell biologic approaches to apoptosis bench work with an emphasis on translational clinical applications for immune disorders, cancer research, ischemia, and neuronal degeneration. Since the original publication in 2003, the apoptosis field has expanded rapidly – chapters not only need to be revised and expanded, but there is a need for all new chapters covering exciting advances in bioinformatics, systems biology, oxidative stress, etc.

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Toxicology's gold-standard text - completely updated to reflect the latest breakthroughs and discoveries A Doody's Core Title for 2019! Casarett & Doull's Toxicology: The Basic Science of Poisons, Ninth Edition equips you with an unsurpassed understanding of modern toxicology, including the key principles, concepts, mechanisms, chemical-specific toxicity, and modes of thought that are the foundation of the discipline. This trusted classic not only delivers a comprehensive review of the essential components of toxicology, it offers the most up-to-date, revealing, and in-depth look at the systemic responses of toxic substance available anywhere. Casarett & Doull's Toxicology: The Basic Science of Poisons, Ninth Edition is logically divided into seven sections: •General Principles of Toxicology •Disposition of Toxicants •Non-Organ Directed Toxicity •Target Organ Toxicity •Toxic Agents •Environmental Toxicology •Applications of Toxicology Many new contributors capture the progress made in toxicology over the past few years: This edition is markedly updated from the previous edition, with more than one-third of the chapters authored by scientists who have not made previous contributions

to the book. Sharing their expertise, they deliver dynamic new coverage of the importance of apoptosis, autophagy, cytokines, growth factors, oncogenes, cell cycling, receptors, gene regulation, protective mechanisms, repair mechanisms, transcription factors, signaling pathways, transgenic mice, knock-out mice, humanized mice, polymorphisms, microarray technology, second-generation sequencing, genomics, proteomics, epigenetics, exposome, microbiota, read across, adverse outcome pathways, high-content screening, computational toxicology, innovative test methods, and organ-on-a-chip in understanding the mechanisms of toxicity and the regulation of chemicals. A true "essential" If you are in need of an up-to-date, all-in-one overview of the biomedical and environmental aspects of toxicology - written by experts, and presented in full color, your search ends here.

The book provides easy-to-understand diverse specialized topics in toxicology using self-study questions and answers. The answers are in the form of text along with custom made diagrams and explanations that help the student audience to understand and grasp the matter easily. Problem Solving Questions in Toxicology is written specifically as a study guide for the toxicology board and other examinations. . This comprehensive examination of occupational health and safety explores hazardous agents found in the occupational environment, reviews their potential health effects, and identifies procedures for prevention of occupational illnesses and injuries. In 10 chapters, Occupational Health and Safety for the 21st Century first takes the reader through a detailed history of occupational health and safety efforts since Ancient Greece. It then examines each of the occupationally associated diseases and their epidemiology, including cancers, respiratory diseases, fertility and pregnancy abnormalities, hearing loss, infectious diseases, injuries and fatalities, and job stress. The final chapters examine prevention programs and research methods for this rapidly evolving field. Designed for undergraduate students across a broad spectrum of health and safety disciplines the book presents concepts in an accessible and engaging style. Key Features: Engaging, real-world vignettes in each chapter Loaded with charts, tables, and figures illustrating the most current data in the field Offers thorough coverage of occupational health policy, epidemiology, toxicology, chemical hazards, psychosocial aspects of work, and prevention efforts Student & Instructor Resources: This text comes packaged with Navigate 2 Advantage Access, a comprehensive package of mobile-ready course materials including: Learn: A complete eBook with interactive tools Practice: A virtual Study Center with robust practice activities and flashcards Assess: A homework and testing Assessment center with prepopulated quizzes and examinations Analyze: Dashboards with learner and educator views that reports actionable data

Homeostasis and Toxicology of Non-Essential Metals synthesizes the explosion of new information on the molecular, cellular, and organismal handling of metals in fish in the past 15 years. These elements are no longer viewed by fish physiologists as "heavy metals" that kill fish by suffocation, but rather as interesting moieties that enter and leave fish by specific pathways, which are subject to physiological regulation. The metals featured in this volume are those about which there has been most public and scientific concern, and therefore are those most widely studied by fish researchers. Metals such as Ag, Al, Cd, Pb, Hg, As, Sr, and U have no known nutritive function in fish at present, but are toxic at fairly low levels. The companion volume, Homeostasis and Toxicology of Essential Metals, Volume 31A, covers metals that are either proven to be or are strongly suspected to be essential in trace amounts, yet are toxic in higher doses. Metals such as Cu, Zn, Fe, Ni, Co, Se, Mo and Cr. In addition, three chapters in Volumes 31A and 31B on Basic Principles (Chapter 1, 31A), Field Studies and Ecological Integration (Chapter 9, 31A) and Modeling the Physiology and Toxicology of Metals (Chapter 9, 31B) act as integrative summaries and make these two volumes a vital set for readers. All major essential metals of interest are covered in metal-specific chapters Each metal-specific chapter is written by fish physiologists/toxicologists who are recognized authorities for that metal A common format is featured throughout this

two volume edition

The most complete, trusted reference text covering the full span of medical toxicology A Doody's Core Title ESSENTIAL PURCHASE for 2011! "This reference stands alone as the basic text in the field of toxicology. This authoritative reference is written by many distinguished professionals in the field, and offers clear, concise descriptions of the key concepts in toxicology. It is extensive and complete, covering a broad range of topics in sufficient detail. Both as a reference and as an educational tool, this book exceeds its goal of serving as a reference for toxicologists, other scientists, and students of the discipline. 3 Stars."--Doody's Review Service Long established as the gold standard in the field, Casarett & Doull's Toxicology equips you with an unsurpassed understanding of modern toxicology, including the principles, concepts, mechanisms, and modes of thought that are the foundation of the discipline. The new seventh edition features is updated throughout and includes many new contributors and new content on chemical terrorism.

Understand the essential principles of toxicology and how poisons affect the human body with this accessible and engaging summary A Doody's Core Title for 2017! General Principles of Toxicology Disposition of Toxicants Nonorgan-directed Toxicity Target Organ Toxicity Toxic Agents Environmental Toxicology Applications of Toxicology Casarett & Doull's Essentials of Toxicology is an easy-to-absorb distillation of the major principles and concepts that were presented in depth in Casarett & Doull's Toxicology: The Basic Science of Poisons, Eighth Edition, the field's gold-standard text. Presented in full color, the book concisely describes the science of toxicology, and includes important concepts from anatomy, physiology, and biochemistry to facilitate the understanding of the principles and mechanisms of toxicant action on specific organ systems. A summary of key points at the beginning and review questions at the end of each chapter help you study, understand, and memorize the material. Reflecting the expertise of more than sixty renowned contributors, Casarett & Doull's Essentials of Toxicology is logically divided into seven sections: Succinct and comprehensive, there is no better text for gaining an understanding of essential principles, toxicokinetics, how toxic effects are passed on to succeeding generations, how each body system responds to poisons, and the specific effects of a wide range of toxic agents than Casarett & Doull's Essentials of Toxicology.

This unique book bridges the gap between toxicology and chemistry at a level understandable by a wide spectrum of readers with various interests and a broad range of backgrounds in chemistry, biochemistry, and toxicology. The third edition has been thoroughly updated and expanded to reflect recent advances in important areas of research, including toxicogenetics and toxic effects on various body systems. Toxicological Chemistry and Biochemistry, Third Edition begins by outlining the basic concepts of general chemistry, organic chemistry, and biochemistry needed to understand the topics in the book. The author then presents an overview of environmental chemistry so that you can understand the remainder of the material covered within that framework. He also discusses biodegradation, bioaccumulation, and biochemical processes that occur in water and soil. The new chapter on toxic effects considers toxicities to the endocrine and reproductive systems, and the section on xenobiotics analysis deals with the determination of toxicants and their metabolites in blood and other biological materials. The chapter on the genetic aspects of toxicology discusses the ways in which chemical damage to DNA can cause mutations, cancer, and other toxic effects on specific body systems, and it considers the role of genetics in determining individual susceptibilities to various toxicants. Toxicological Chemistry and Biochemistry, Third Edition retains the basic information and structure that made the first two editions popular with students and industry professionals, while enhancing the usefulness of the book and modernizing it in important areas. Review questions and supplementary references at the end of each chapter round out the third edition of this bestselling work.

The most concise and authoritative introduction to the principles of toxicology and how poisons affect the human body - now in full color

Casarett & Doull's Essentials of Toxicology is an easy-to-absorb distillation of the field's gold-standard text Casarett & Doull's Toxicology: The Basic Science of Poisons. Presented in full color for the first time, the book combines an accessible and engaging approach with coverage of essential introductory concepts to provide you with a solid grounding in basic and medical toxicology. Succinct, yet comprehensive, the text covers essential principles, toxicokinetics, how toxic effects are passed on to succeeding generations, how each body system responds to poisons, and the specific effects of a wide range of toxic agents - from pesticides to radiation. Features: A complete basic overview of poisons and their clinical management Reflects the expertise of more than fifty renowned contributors A summary of important points is included at the beginning of each chapter and multiple-choice review questions appear at the conclusion Important chapters on forefront topics such as Analytic/Forensic Toxicology, Clinical Toxicology, Occupational Toxicology, Air Pollution, and Ecotoxicology Condensed Table of Contents: General Principles of Toxicology, Disposition of Toxicants, Nonorgan-Directed Toxicity, Target Organ Toxicity, Toxic Agents, Environmental Toxicology, Applications of Toxicology.

Toxicologic pathology integrates toxicology and the disciplines within it (such as biochemistry, pharmacodynamics and risk assessment) to pathology and its related disciplines (such as physiology, microbiology, immunology, and molecular biology). Fundamentals of Toxicologic Pathology Second Edition updates the information presented in the first edition, including five entirely new chapters addressing basic concepts in toxicologic pathology, along with color photomicrographs that show examples of specific toxicant-induced diseases in animals. The current edition also includes comparative information that will prove a valuable resource to practitioners, including diagnostic pathologists and toxicologists. 25% brand new information, fully revised throughout New chapters: Veterinary Diagnostic Toxicologic Pathology; Clinical Pathology; Nomenclature: Terminology for Morphologic Alterations; Techniques in Toxicologic Pathology New color photomicrographs detailing specific toxicant-induced diseases in animals Mechanistic information integrated from both toxicology and pathology discussing basic mechanisms of toxic injury and morphologic expression at the subcellular, cellular, and tissue levels

Essentials of Medical Geology reviews the essential concepts and practical tools required to tackle environmental and public health problems. It is organized into four main sections. The first section deals with the fundamentals of environmental biology, the natural and anthropogenic sources of health elements that impact health and illustrate key biogeochemical transformations. The second section looks at the geological processes influencing human exposure to specific elements, such as radon, arsenic, fluorine, selenium and iodine. The third section presents the concepts and techniques of pathology, toxicology and epidemiology that underpin investigations into the human health effects of exposure to naturally occurring elements. The last section provides a toolbox of analytical approaches to environmental research and medical geology investigations. Essentials of Medical Geology was first published in 2005 and has since won three prestigious rewards. The book has been recognized as a key book in both medical and geology fields and is widely used as textbook and reference book in these fields. For this revised edition, editors and authors have updated the content that evolved a lot during 2005 and added two new chapters, on public health, and agriculture and health. This updated volume can now continue to be used as a textbook and reference book for all who are interested in this important topic and its impacts the health and wellbeing of many millions of people all over the world. · Addresses key topics at the intersection of environmental science and human health · Developed by 60 international experts from 20 countries and edited by professionals from the International Medical Geology Association (IMGA) · Written in non-technical language for a broad spectrum of readers, ranging from students and professional researchers to policymakers and the general public · Includes color illustrations throughout, references for further investigation and other aids to the reader

The most concise and authoritative introduction to the principles of toxicology and how poisons affect the human body – now in full color A Doody's Core Title ESSENTIAL PURCHASE for 2011! Casarett & Doull's Essentials of Toxicology is an easy-to-absorb distillation of the field's gold-standard text Casarett & Doull's Toxicology: The Basic Science of Poisons. Presented in full color for the first time, the book combines an accessible and engaging approach with coverage of essential introductory concepts to provide you with a solid grounding in basic and medical toxicology. Succinct, yet comprehensive, the text covers essential principles, toxicokinetics, how toxic effects are passed on to succeeding generations, how each body system responds to poisons, and the specific effects of a wide range of toxic agents – from pesticides to radiation. Features: A complete basic overview of poisons and their clinical management Reflects the expertise of more than fifty renowned contributors A summary of important points is included at the beginning of each chapter and multiple-choice review questions appear at the conclusion Important chapters on forefront topics such as Analytic/Forensic Toxicology, Clinical Toxicology, Occupational Toxicology, Air Pollution, and Ecotoxicology Condensed Table of Contents: General Principles of Toxicology, Disposition of Toxicants, Nonorgan-Directed Toxicity, Target Organ Toxicity, Toxic Agents, Environmental Toxicology, Applications of Toxicology.

Fundamentals of Environmental and Toxicological Chemistry: Sustainable Science, Fourth Edition covers university-level environmental chemistry, with toxicological chemistry integrated throughout the book. This new edition of a bestseller provides an updated text with an increased emphasis on sustainability and green chemistry. It is organized based on the five spheres of Earth's environment: (1) the hydrosphere (water), (2) the atmosphere (air), (3) the geosphere (solid Earth), (4) the biosphere (life), and (5) the anthrosphere (the part of the environment made and used by humans). The first chapter defines environmental chemistry and each of the five environmental spheres. The second chapter presents the basics of toxicological chemistry and its relationship to environmental chemistry. Subsequent chapters are grouped by sphere, beginning with the hydrosphere and its environmental chemistry, water pollution, sustainability, and water as nature's most renewable resource. Chapters then describe the atmosphere, its structure and importance for protecting life on Earth, air pollutants, and the sustainability of atmospheric quality. The author explains the nature of the geosphere and discusses soil for growing food as well as geosphere sustainability. He also describes the biosphere and its sustainability. The final sphere described is the anthrosphere. The text explains human influence on the environment, including climate, pollution in and by the anthrosphere, and means of sustaining this sphere. It also discusses renewable, nonpolluting energy and introduces workplace monitoring. For readers needing additional basic chemistry background, the book includes two chapters on general chemistry and organic chemistry. This updated edition includes three new chapters, new examples and figures, and many new homework problems.

Homeostasis and Toxicology of Essential Metals synthesizes the explosion of new information on the molecular, cellular, and organismal handling of metals in fish in the past 15 years. These elements are no longer viewed by fish physiologists as "heavy metals" that kill fish by suffocation, but rather as interesting moieties that enter and leave fish by specific pathways, which are subject to physiological regulation. The metals featured in this volume are those about which there has been most public and scientific concern, and therefore are those most widely studied by fish researchers. Metals such as Cu, Zn, Fe, Ni, Co, Se, Mo and Cr are either proven to be or are strongly suspected to be essential in trace amounts, yet are toxic in higher doses. The companion volume, Homeostasis and Toxicology of Non-Essential Metals, Volume 31B, covers metals that have no known nutritive function in fish at present, but which are toxic at fairly low levels, such as Ag, Al, Cd, Pb, Hg, As, Sr, and U. In addition, three chapters in Volumes 31A and 31B on Basic Principles (Chapter 1, 31A), Field Studies and Ecological Integration (Chapter 9, 31A) and Modeling the Physiology and Toxicology of Metals (Chapter 9, 31B) act as integrative summaries and make

these two volumes a vital set for readers. All major essential metals of interest are covered in metal-specific chapters. Each metal-specific chapter is written by fish physiologists/toxicologists who are recognized authorities for that metal. A common format is featured throughout this two volume edition.

As the first title in the Essential Public Health series, *Essentials of Environmental Health* is a clear and comprehensive study of the major topics of environmental health, including: background of the field and “tools of the trade” (environmental epidemiology, environmental toxicology, and environmental policy and regulation); environmental diseases (microbial agents, ionizing and non-ionizing radiation); and applications and domains of environmental health (water and air quality, food safety, waste disposal, and occupational health). Perfect for the beginning student as well as the experienced health professional, each chapter concludes with study questions and exercises to engage the reader in further study. The forthcoming companion website for this edition will provide additional resources and learning aids, including PowerPoints, an instructor's manual, test questions, and flashcards.

Health Sciences & Professions

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Understand the essential principles of toxicology and how poisons affect the human body with this accessible and engaging summary. A Doody's Core Title for 2017! *Casarett & Doull's Essentials of Toxicology* is an easy-to-absorb distillation of the major principles and concepts that were presented in depth in *Casarett & Doull's Toxicology: The Basic Science of Poisons*, Eighth Edition, the field's gold-standard text. Presented in full color, the book concisely describes the science of toxicology, and includes important concepts from anatomy, physiology, and biochemistry to facilitate the understanding of the principles and mechanisms of toxicant action on specific organ systems. A summary of key points at the beginning and review questions at the end of each chapter help you study, understand, and memorize the material. Reflecting the expertise of more than sixty renowned contributors, *Casarett & Doull's Essentials of Toxicology* is logically divided into seven sections: Succinct and comprehensive, there is no better text for gaining an understanding of essential principles, toxicokinetics, how toxic effects are passed on to succeeding generations, how each body system responds to poisons, and the specific effects of a wide range of toxic agents than *Casarett & Doull's Essentials of Toxicology*.

Bringing together a distinguished interdisciplinary team of contributors, this volume provides a comprehensive exploration of translational toxicology—a systematic approach to developing therapeutic interventions that can protect against, mitigate, or reverse the effects of exposures. In particular, the book addresses modes of action and biomarkers, developmental risks of exposures, and potential translational toxicology therapeutics. The result is a compelling application of developmental toxicology in a new therapeutic discipline that is destined to become part of standard medical practice. *Translational Toxicology: Defining a New Therapeutic Discipline* is an essential text for regulatory authorities, scientists, and physicians who are concerned with environmental exposures, public health, nutrition, and pharmaceutical research and development. Basic science, epidemiological, and clinical investigators will also find this book a significant resource.

Loomis's Essentials of Toxicology is an introductory text on the science of harmful biologic effects associated with exposures to chemicals of all types. The scope of this book includes a discussion of the major types of chemicals involved; the general properties of chemicals and biologic systems as they influence the occurrence of detrimental biologic effects; the methods used to demonstrate these effects; and the basis for clinical diagnosis and therapy of harmful effects of chemicals on humans. Individual examples are used to demonstrate each of the principles under discussion. This text is an invaluable resource for toxicologists as well as a comprehensive introduction to the topic for

graduate and advanced undergraduate students in toxicology and public health. The "classic textbook" in toxicology Completely revised and updated Includes both principles and methods Requires minimal background in chemistry and biology

The groundbreaking Encyclopedia of Ecology provides an authoritative and comprehensive coverage of the complete field of ecology, from general to applied. It includes over 500 detailed entries, structured to provide the user with complete coverage of the core knowledge, accessed as intuitively as possible, and heavily cross-referenced. Written by an international team of leading experts, this revolutionary encyclopedia will serve as a one-stop-shop to concise, stand-alone articles to be used as a point of entry for undergraduate students, or as a tool for active researchers looking for the latest information in the field. Entries cover a range of topics, including: Behavioral Ecology Ecological Processes Ecological Modeling Ecological Engineering Ecological Indicators Ecological Informatics Ecosystems Ecotoxicology Evolutionary Ecology General Ecology Global Ecology Human Ecology System Ecology The first reference work to cover all aspects of ecology, from basic to applied Over 500 concise, stand-alone articles are written by prominent leaders in the field Article text is supported by full-color photos, drawings, tables, and other visual material Fully indexed and cross referenced with detailed references for further study Writing level is suited to both the expert and non-expert Available electronically on ScienceDirect shortly upon publication

As drug development shifts over time to address unmet medical needs and more targeted therapies are developed, previously unseen pharmacological or off-target effects may occur in treatment. Designed to provide practical information for the bench toxicologic pathologist working in pharmaceutical drug research, Toxicologic Pathology: Nonclinical Safety Assessment presents a histopathologic description of lesions observed during drug development and discusses their implication in the drug development process. Divided into two sections, the book systematically assists pathologists in making a determination as to the origin and potential importance of a lesion and its relevance for assessing human risk. The first section includes eight "concept" chapters to orient pathologists in areas that are important for effective interaction with other pathologists as well as the many non-pathologists involved in drug development. The second section is made up of organ-based chapters, each including light microscopic and electron microscopic descriptions of pathological lesions, differential diagnoses, biological consequences, pathogenesis, mechanism of lesion formation, and the expected clinical pathology correlates. This volume presents critical information—both published and unpublished and gained through personal experience—to improve the quality of drug safety evaluation and to expedite and improve the efficiency of the process. This book is crafted to assist students, residents, and toxicologic pathologists in their early career phase by serving as a resource that can effectively be used as a ready reference next to the microscope. In addition, more experienced pathologists will find this volume to be invaluable during their assessments. The book is also a valuable reference for toxicologists to assist in understanding compound-related pathological findings and to provide background for working on a range of toxicological problems.

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