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International Encyclopedia of Unified Science - Charles William Morris 1969

Khan's The Physics of Radiation Therapy - Faiz M. Khan 2014-04-03
Expand your understanding of the physics and practical clinical applications of advanced radiation therapy technologies with Khan's The Physics of Radiation Therapy, 5th edition, the book that set the standard in the field. This classic full-color text helps the entire radiation therapy team—radiation oncologists, medical physicists, dosimetrists, and radiation therapists—develop a thorough understanding of 3D conformal radiotherapy (3D-CRT), stereotactic radiosurgery (SRS), high dose-rate remote afterloaders (HDR), intensity modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT), Volumetric Modulated Arc Therapy (VMAT), and proton beam therapy, as well as the physical concepts underlying treatment planning, treatment delivery, and dosimetry. In preparing this new Fifth Edition, Dr. Kahn and new co-author Dr. John Gibbons made chapter-by-chapter revisions in the light of the latest developments in the field, adding new discussions, a new chapter, and new color illustrations throughout. Now even more precise and relevant, this edition is ideal as a reference book for practitioners, a textbook for students, and a constant companion for those preparing for their board exams. Features Stay on top of the latest advances in the field with new sections and/or discussions of Image Guided Radiation Therapy (IGRT), Volumetric Modulated Arc Therapy (VMAT), and the Failure Mode Event Analysis (FMEA) approach to quality assurance. Deepen your knowledge of Stereotactic Body Radiotherapy (SBRT) through a completely new chapter that covers SBRT in greater detail. Expand your visual understanding with new full color illustrations that reflect current practice and depict new procedures. Access the authoritative information you need fast through the new companion website which features fully searchable text and an image bank for greater convenience in studying and teaching. This is the tablet version which does not include access to the supplemental content mentioned in the text.

Reaction Mechanisms in Inorganic Chemistry - M. L. Tobe 1974

Atomic Habits - James Clear 2018-10-16

The #1 New York Times bestseller. Over 4 million copies sold! Tiny Changes, Remarkable Results No matter your goals, Atomic Habits offers a proven framework for improving—every day. James Clear, one of the world's leading experts on habit formation, reveals practical strategies that will teach you exactly how to form good habits, break bad ones, and master the tiny behaviors that lead to remarkable results. If you're having trouble changing your habits, the problem isn't you. The problem is your system. Bad habits repeat themselves again and again not because you don't want to change, but because you have the wrong system for change. You do not rise to the level of your goals. You fall to the level of your systems. Here, you'll get a proven system that can take you to new heights. Clear is known for his ability to distill complex topics into simple behaviors that can be easily applied to daily life and work. Here, he draws on the most proven ideas from biology, psychology, and neuroscience to create an easy-to-understand guide for making good habits inevitable and bad habits impossible. Along the way, readers will be inspired and entertained with true stories from Olympic gold medalists, award-winning artists, business leaders, life-saving physicians, and star comedians who have used the science of small habits to master their craft and vault to the top of their field. Learn how to: make time for new habits (even when life gets crazy); overcome a lack of motivation and willpower; design your environment to make success easier; get back on track when you fall off course; ...and much more. Atomic Habits will reshape the way you think about progress and success, and give you the tools and strategies you need to transform your habits—whether you are a team looking to win a championship, an organization hoping to redefine an industry, or simply

an individual who wishes to quit smoking, lose weight, reduce stress, or achieve any other goal.

The 4 States of Consciousness - Michael Mathiesen 2016-10-09

Every living thing with a brain has some form of Consciousness, or an awareness of who or what they are and the role they play in the universe. But few of the living really know what to do with that information.

Electrons make up the first state of Consciousness. We now know that they can learn about each other and bind together for life like a marriage in what's known as 'Entanglements.' Whenever the state of one 'Entangled' electron is changed, the other one in the pair knows about it and it changes instantly to show unification. This happens instantly no matter how far away the two may be from one another. How do they know? The only answer is 'Consciousness'. From there, the forces of Nature allow the Electrons to pass their subatomic level of Consciousness up to the level of Atoms, structured out of the building blocks of the electrons, protons, etc. From there, the Atoms, or Elements are able to pass up their form of Consciousness to the molecular level. Remember the Avogadro's Number? From the molecular level, molecules are able to pass on their level of Consciousness to all living things, the 4th and highest State of Consciousness for all living things - what I call the Feedback Loop. We are all part of that loop. It's a loop because even at the highest level of Consciousness, we still use Electrons to create and transport our thoughts throughout our brains. This book is an answer to some of the greatest questions of all time and they are: 'Where do we come from?' 'Why are we here?' and 'What can we do about it?'

The Atomic Theory - Joseph John Thomson 1914

The Nature of Matter - Otto Robert Frisch 1973

The Hydrogen Atom - S.G. Karshenboim 2007-12-03

For more than a century, studies of atomic hydrogen have been a rich source of scientific discoveries. These began with the Balmer series in 1885 and the early quantum theories of the atom, and later included the development of QED and the first successful gauge field theory. Today, hydrogen and its relatives continue to provide new fundamental information, as witnessed by the contributions to this book. The printed volume contains invited reviews on the spectroscopy of hydrogen, muonium, positronium, few-electron ions and exotic atoms, together with related topics such as frequency metrology and the determination of fundamental constants. The accompanying CD contains, in addition to these reviews, a further 40 contributed papers also presented at the conference "Hydrogen Atom 2" held in summer 2000. Finally, to facilitate a historical comparison, the CD also contains the proceedings of the first "Hydrogen Atom" conference of 1988. The book includes a foreword by Norman F. Ramsey.

An Introduction to Chemistry - Mark Bishop 2002

This book teaches chemistry at an appropriate level of rigor while removing the confusion and insecurity that impair student success. Students are frequently intimidated by prep chem; Bishop's text shows them how to break the material down and master it. The flexible order of topics allows unit conversions to be covered either early in the course (as is traditionally done) or later, allowing for a much earlier than usual description of elements, compounds, and chemical reactions. The text and superb illustrations provide a solid conceptual framework and address misconceptions. The book helps students to develop strategies for working problems in a series of logical steps. The Examples and Exercises give plenty of confidence-building practice; the end-of-chapter problems test the student's mastery. The system of objectives tells the students exactly what they must learn in each chapter and where to find it.

Structure and Properties of Ceramics - A. Koller 1994-06-03

Modern ceramic materials differ from the traditional materials which were only based on natural substances. It is now possible to prepare ceramics

using a wide range of properties and as an area this field has evolved as a very broad scientific and technical field in its own right. In practice one encounters ceramics in practically all branches of materials science and the characteristics are so wide ranging that the common basis of these substances is not always immediately apparent. All ceramic materials are prepared by ceramic technology, and powder substances are used as the initial raw materials. Their physical properties are an expression not only of their composition, but primarily of their structure. Thus in order to fully understand the properties of ceramics, a knowledge of their structure is essential. This book is intended as a source of such knowledge. All the chapters are written by authors with vast experience in the various fields of ceramics who provide a detailed description of the interrelationships between the structure and behaviour of ceramic materials.

Radiation Oncology Physics - International Atomic Energy Agency 2005
This publication is aimed at students and teachers involved in teaching programmes in field of medical radiation physics, and it covers the basic medical physics knowledge required in the form of a syllabus for modern radiation oncology. The information will be useful to those preparing for professional certification exams in radiation oncology, medical physics, dosimetry or radiotherapy technology.

Introduction to Computational Chemistry - Frank Jensen 2016-12-14
Introduction to Computational Chemistry 3rd Edition provides a comprehensive account of the fundamental principles underlying different computational methods. Fully revised and updated throughout to reflect important method developments and improvements since publication of the previous edition, this timely update includes the following significant revisions and new topics: Polarizable force fields Tight-binding DFT More extensive DFT functionals, excited states and time dependent molecular properties Accelerated Molecular Dynamics methods Tensor decomposition methods Cluster analysis Reduced scaling and reduced prefactor methods Additional information is available at:
www.wiley.com/go/jensen/computationalchemistry3

2D Metal Carbides and Nitrides (MXenes) - Babak Anasori 2019-10-30

This book describes the rapidly expanding field of two-dimensional (2D) transition metal carbides and nitrides (MXenes). It covers fundamental knowledge on synthesis, structure, and properties of these new materials, and a description of their processing, scale-up and emerging applications. The ways in which the quickly expanding family of MXenes can outperform other novel nanomaterials in a variety of applications, spanning from energy storage and conversion to electronics; from water science to transportation; and in defense and medical applications, are discussed in detail.

Chemistry for Pharmacy Students - Professor Satyajit D. Sarker 2013-05-28

"This book has succeeded in covering the basic chemistry essentials required by the pharmaceutical science student... the undergraduate reader, be they chemist, biologist or pharmacist will find this an interesting and valuable read." -Journal of Chemical Biology, May 2009
Chemistry for Pharmacy Students is a student-friendly introduction to the key areas of chemistry required by all pharmacy and pharmaceutical science students. The book provides a comprehensive overview of the various areas of general, organic and natural products chemistry (in relation to drug molecules). Clearly structured to enhance student understanding, the book is divided into six clear sections. The book opens with an overview of general aspects of chemistry and their importance to modern life, with particular emphasis on medicinal applications. The text then moves on to a discussion of the concepts of atomic structure and bonding and the fundamentals of stereochemistry and their significance to pharmacy- in relation to drug action and toxicity. Various aspects of aliphatic, aromatic and heterocyclic chemistry and their pharmaceutical importance are then covered with final chapters looking at organic reactions and their applications to drug discovery and development and natural products chemistry. accessible introduction to the key areas of chemistry required for all pharmacy degree courses student-friendly and written at a level suitable for non-chemistry students includes learning objectives at the beginning of each chapter focuses on the physical properties and actions of drug molecules

Chemistry 2e - Paul Flowers 2019-02-14

Chemistry 2e is designed to meet the scope and sequence requirements of the two-semester general chemistry course. The textbook provides an important opportunity for students to learn the core concepts of chemistry and understand how those concepts apply to their lives and the world around them. The book also includes a number of innovative features, including interactive exercises and real-world applications, designed to

enhance student learning. The second edition has been revised to incorporate clearer, more current, and more dynamic explanations, while maintaining the same organization as the first edition. Substantial improvements have been made in the figures, illustrations, and example exercises that support the text narrative. Changes made in Chemistry 2e are described in the preface to help instructors transition to the second edition.

The Craft of Scientific Presentations - Michael Alley 2006-05-17

This timely and hugely practical work provides a score of examples from contemporary and historical scientific presentations to show clearly what makes an oral presentation effective. It considers presentations made to persuade an audience to adopt some course of action (such as funding a proposal) as well as presentations made to communicate information, and it considers these from four perspectives: speech, structure, visual aids, and delivery. It also discusses computer-based projections and slide shows as well as overhead projections. In particular, it looks at ways of organizing graphics and text in projected images and of using layout and design to present the information efficiently and effectively.

An Introduction to Nanoscience and Nanotechnology - Alain Nouaillhat 2010-01-05

This book recalls the basics required for an understanding of the nanoworld (quantum physics, molecular biology, micro and nanoelectronics) and gives examples of applications in various fields: materials, energy, devices, data management and life sciences. It is clearly shown how the nanoworld is at the crossing point of knowledge and innovation. Written by an expert who spent a large part of his professional life in the field, the title also gives a general insight into the evolution of nanosciences and nanotechnologies. The reader is thus provided with an introduction to this complex area with different "tracks" for further personal comprehension and reflection. This guided and illustrated tour also reveals the importance of the nanoworld in everyday life.

Concepts of Biology - Samantha Fowler 2018-01-07

Concepts of Biology is designed for the single-semester introduction to biology course for non-science majors, which for many students is their only college-level science course. As such, this course represents an important opportunity for students to develop the necessary knowledge, tools, and skills to make informed decisions as they continue with their lives. Rather than being mired down with facts and vocabulary, the typical non-science major student needs information presented in a way that is easy to read and understand. Even more importantly, the content should be meaningful. Students do much better when they understand why biology is relevant to their everyday lives. For these reasons, Concepts of Biology is grounded on an evolutionary basis and includes exciting features that highlight careers in the biological sciences and everyday applications of the concepts at hand. We also strive to show the interconnectedness of topics within this extremely broad discipline. In order to meet the needs of today's instructors and students, we maintain the overall organization and coverage found in most syllabi for this course. A strength of Concepts of Biology is that instructors can customize the book, adapting it to the approach that works best in their classroom. Concepts of Biology also includes an innovative art program that incorporates critical thinking and clicker questions to help students understand--and apply--key concepts.

Biology Today and Tomorrow Without Physiology - Cecie Starr 2020-01-01

The Sixth Edition of BIOLOGY TODAY AND TOMORROW WITHOUT PHYSIOLOGY helps students build critical-thinking skills they will use as responsible, science-literate citizens. Packed with beautiful art and current applications, the book's straightforward writing style and chunked content help students grasp the fundamentals of biology without overwhelming them with detail. Content updates reflect current research, new technology and the social implications of both, while active learning tools are woven into the narrative and art. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

QUANTUM PHYSICS FOR BEGINNERS - Richard J. Schrödinger 2021-05-10

Is it possible for two objects to be in two places at once? Can cause and effect happen in reverse? Are you curious about the physics of baseball? Is time travel possible? Believe it or not, it is possible: welcome to the Quantum World! Unlike other arguments, however, the real difficulty is not in understanding, but in accepting something completely senseless, precisely in the right meaning of the term: not sensible, that is, contrary to the perception of our senses. You will notice that quantum mechanics is much "easier" than the theory of relativity. In fact, you could get a child to

help you digest certain concepts. The great difficulty does not lie in their complexity, but their absurdity in terms of logic acquired after many years of existence in a world that constantly follows certain rules. The more the brain is free of preconceptions and ingrained notions, the better it is.

★★★In this book you will learn:★★★ What the interference is; How many dimensions the Universe has; Quantum wave function; What Particles of Light are. The relation between waves and particles; The Heisenberg Uncertainty Principle; How particles can be in multiple places at once; Quantum entanglement; introduction to classical mechanics; black holes; ...and much more! Quantum Physics for Beginners is at the basis of all the technological innovations of today, from atomic energy to computer microelectronics, from digital clocks to lasers, semiconductor systems, photoelectric cells, diagnostic and treatment equipment for many diseases. In short, today we can live in a "modern" way thanks to Quantum Physics and its applications. This short but comprehensive beginner's guide to quantum mechanics explains the most important and stunning quantum experiments that show quantum physics is real. If you are a physic beginner looking for astrophysics books or books that can explain Physics in a way understandable also for kids, then this book is perfect for you! Are you ready? Let's dive into the fascinating science of Quantum Physics by scrolling up the page and pressing the "Buy Now" button!

A Book of Set Theory - Charles C Pinter 2014-07-23

"This accessible approach to set theory for upper-level undergraduates poses rigorous but simple arguments. Each definition is accompanied by commentary that motivates and explains new concepts. A historical introduction is followed by discussions of classes and sets, functions, natural and cardinal numbers, the arithmetic of ordinal numbers, and related topics. 1971 edition with new material by the author"--

Quantum Electronics - IntroBooks 2018-02-22

Quantum Electronics is that discipline of Physics which deals with the impact of quantum mechanics on the specific behavior of electrons in elements or that of any matter. To get an in depth understanding of the quantum electronics as a whole, it is required that atomic physics, which studies and explains the inner workings of atoms in matter, has to be understood very well. Atomic Physics is widely acclaimed as the most active of the testing grounds of the quantum theory and is rightly the field of extensive research for both its contribution to quantum electronics and technology in general, as well as for its contribution to all physics fundamentally. Not only quantum electronics, but a plethora of other disciplines are heavily indebted to Atomic Physics in that regard, some of them are quantum chemistry, astrophysics, solid-state physics, laser physics etc. According to one of the greatest pioneers of quantum mechanics, Mr. Feynman, if for some reason, all the information regarding science that is known to man today has to go except only one sentence that could be passed on to the next generation of creatures, then the most important of all information to fit into that one sentence would be the idea of atoms or atomic hypothesis / fact, whichever you want to call it - that describes little particles that are under constant movement and attracting each other if apart and repelling each other when squeezed--With a little bit of thinking and imagination applied to that one sentence, one can easily observe the huge information as well as the great evaluation made about our world! The primary task of Atomic Physics is to determine the wave functions as well as the energies emitted out of the quantized electron, leaving everything else related to the nucleus is left to Nuclear Physics to determine. So, for concept building we need to put stress on the basics of atomic physics before moving on the applications of Quantum Electronics.

A Treatise on the Motion of Vortex Rings - Joseph John Thomson 1883

Automate the Boring Stuff with Python, 2nd Edition - Al Sweigart 2019-11-12

The second edition of this best-selling Python book (over 500,000 copies sold!) uses Python 3 to teach even the technically uninclined how to write programs that do in minutes what would take hours to do by hand. There is no prior programming experience required and the book is loved by liberal arts majors and geeks alike. If you've ever spent hours renaming files or updating hundreds of spreadsheet cells, you know how tedious tasks like these can be. But what if you could have your computer do them for you? In this fully revised second edition of the best-selling classic *Automate the Boring Stuff with Python*, you'll learn how to use Python to write programs that do in minutes what would take you hours to do by hand--no prior programming experience required. You'll learn the basics of Python and explore Python's rich library of modules for performing

specific tasks, like scraping data off websites, reading PDF and Word documents, and automating clicking and typing tasks. The second edition of this international fan favorite includes a brand-new chapter on input validation, as well as tutorials on automating Gmail and Google Sheets, plus tips on automatically updating CSV files. You'll learn how to create programs that effortlessly perform useful feats of automation to:

- Search for text in a file or across multiple files
- Create, update, move, and rename files and folders
- Search the Web and download online content
- Update and format data in Excel spreadsheets of any size
- Split, merge, watermark, and encrypt PDFs
- Send email responses and text notifications
- Fill out online forms

Step-by-step instructions walk you through each program, and updated practice projects at the end of each chapter challenge you to improve those programs and use your newfound skills to automate similar tasks. Don't spend your time doing work a well-trained monkey could do. Even if you've never written a line of code, you can make your computer do the grunt work. Learn how in *Automate the Boring Stuff with Python, 2nd Edition*.

Biology: Concepts and Applications - Cecie Starr 2016-12-05

Authors Cecie Starr, Christine A. Evers, and Lisa Starr partnered with the National Geographic Society to develop this edition of *BIOLOGY: CONCEPTS AND APPLICATIONS*. Renowned for its clear writing style and unparalleled visuals, this trendsetting book applies exclusive National Geographic content to engage students and emphasize that biology is an ongoing endeavor carried out by a diverse community of scientists. Each chapter explores core concepts aligned with the American Association for the Advancement of Science (AAAS) initiative "Vision and Change in Undergraduate Biology Education" to help students master associated learning objectives. By continuously challenging students to question what they read and to apply the concepts they learn, the text allows our citizens and future policy-makers to hone critical thinking skills as they gain scientific literacy. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Introduction to Chemistry - IntroBooks 2018-02-20

Chemistry studies the nature (atomic and molecular structure, etc.), properties, composition and transformations of matter. Here are some benefits that chemistry can provide: ♦ fabrics of the clothes we use in day-to-day are materials obtained through the development of Chemistry; the artificial fibers (nylon, tergal, etc.), synthetic rubbers, plastics, part of a group of materials called polymers; polymers have been numerous applications: plastic bags, towels, bottles, plastic pipes, electrical coatings, toys, records, upholstery, pan coatings; Biochemistry has allowed not only to know precise mechanisms of the body, such as influence them, enabling the development of molecular biology and pharmacology, fundamental to the progress of medicine. And in the area of Food Engineering, for example, is that chemistry plays a significant role? Yes. It is vital!

Chemistry 2e - Paul Flowers 2019-02-14

Chemistry 2e is designed to meet the scope and sequence requirements of the two-semester general chemistry course. The textbook provides an important opportunity for students to learn the core concepts of chemistry and understand how those concepts apply to their lives and the world around them. The book also includes a number of innovative features, including interactive exercises and real-world applications, designed to enhance student learning. The second edition has been revised to incorporate clearer, more current, and more dynamic explanations, while maintaining the same organization as the first edition. Substantial improvements have been made in the figures, illustrations, and example exercises that support the text narrative. Changes made in Chemistry 2e are described in the preface to help instructors transition to the second edition.

The Elegant Universe - Brian Greene 2000

Introduces the superstring theory that attempts to unite general relativity and quantum mechanics

Nitrogen oxides (NOx) why and how they are controlled -

A New System of Chemical Philosophy - John Dalton 1827

MongoDB: The Definitive Guide - Kristina Chodorow 2013-05-10

Manage the huMONGOus amount of data collected through your web application with MongoDB. This authoritative introduction—written by a core contributor to the project—shows you the many advantages of using document-oriented databases, and demonstrates how this reliable, high-performance system allows for almost infinite horizontal scalability. This updated second edition provides guidance for database developers,

advanced configuration for system administrators, and an overview of the concepts and use cases for other people on your project. Ideal for NoSQL newcomers and experienced MongoDB users alike, this guide provides numerous real-world schema design examples. Get started with MongoDB core concepts and vocabulary Perform basic write operations at different levels of safety and speed Create complex queries, with options for limiting, skipping, and sorting results Design an application that works well with MongoDB Aggregate data, including counting, finding distinct values, grouping documents, and using MapReduce Gather and interpret statistics about your collections and databases Set up replica sets and automatic failover in MongoDB Use sharding to scale horizontally, and learn how it impacts applications Delve into monitoring, security and authentication, backup/restore, and other administrative tasks

A Web Notebook: A First Course in Using the Internet and Web Design - Tony Hawken 2010-03-30

This is an introductory course book. It teaches people how to use the Internet and to be able to create web pages using HTML. It is intended for students studying computing on an Access to Higher Education programme, though it could be used to benefit many other students as well. The book takes very little for granted, and has numerous examples with brief explanatory notes. There are also example assignments and solutions.

The Birth of Particle Physics - Laurie M. Brown 1986-10-31

A distinctive collection of essays, discussions, and personal descriptions of the evolution of particle physics.

Group Theory - IntroBooks 2018-02-19

By many expert mathematicians, group theory is often addressed as a central part of mathematics. It finds its origins in geometry, since geometry describes groups in a detailed manner. The theory of polynomial equations also describes the procedure and principals of associating a finite group with any polynomial equation. This association is done in such a way that makes the group to encode information that can be used to solve the equations. This equation theory was developed by Galois. Finite group theory faced a number of changes in near past times as a result of classification of finite simple groups. The most important theorem when practicing group theory is theorem by Jordan holder. This theorem shows how any finite group is a combination of multiple finite simple groups. Group theory is a term that is mainly used fields related to mathematics such as algebraic calculations. In abstract algebra, groups are referred as algebraic structures. Other terms of algebraic theories, such as rings, fields and vector spaces are also seen as group. Of course with some additional operations and axioms, mathematicians accept them as a group. The methods and procedures of group theory effect many parts and concepts of mathematics as well as algebra on a large scale. Linear algebraic groups and lie groups are two main branches or say categories of group theory that have advanced enough to be considered as a subject in their own perspectives.

Anatomy and Physiology - J. Gordon Betts 2013-04-25

Biology Today and Tomorrow with Physiology - Cecie Starr 2015-03-31

Strike the perfect balance between level of detail and accessibility! Written for a one-semester, non-Biology majors course, BIOLOGY TODAY AND TOMORROW is packed with applications that are relevant to a student's daily life. The clear, straightforward writing style, in-text learning support, and trendsetting art engage students and help them understand key concepts. The accompanying MindTap for Biology is the most engaging and easiest to customize online solution in Biology. Overall, this accessible introduction helps students develop an

understanding of biology and the process of science while building the critical-thinking skills they need to become responsible citizens of the world. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version. **Chalkbored: What's Wrong with School and How to Fix It** - Jeremy Schneider 2007-09-01

Chemistry: An Atoms First Approach - Steven S. Zumdahl 2011-01-01 Steve and Susan Zumdahl's texts focus on helping students build critical thinking skills through the process of becoming independent problem-solvers. They help students learn to think like a chemists so they can apply the problem solving process to all aspects of their lives. In CHEMISTRY: AN ATOMS FIRST APPROACH, the Zumdahls use a meaningful approach that begins with the atom and proceeds through the concept of molecules, structure, and bonding, to more complex materials and their properties. Because this approach differs from what most students have experienced in high school courses, it encourages them to focus on conceptual learning early in the course, rather than relying on memorization and a plug and chug method of problem solving that even the best students can fall back on when confronted with familiar material. The atoms first organization provides an opportunity for students to use the tools of critical thinkers: to ask questions, to apply rules and models and to evaluate outcomes. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The Development of Modern Chemistry - Aaron J. Ihde 1984-01-01

From ancient Greek theory to the explosive discoveries of the 20th century, this authoritative history shows how major chemists, their discoveries, and political, economic, and social developments transformed chemistry into a modern science. 209 illustrations. 14 tables. Bibliographies. Indices. Appendices.

University Physics - Samuel J. Ling 2017-12-19

University Physics is designed for the two- or three-semester calculus-based physics course. The text has been developed to meet the scope and sequence of most university physics courses and provides a foundation for a career in mathematics, science, or engineering. The book provides an important opportunity for students to learn the core concepts of physics and understand how those concepts apply to their lives and to the world around them. Due to the comprehensive nature of the material, we are offering the book in three volumes for flexibility and efficiency. Coverage and Scope Our University Physics textbook adheres to the scope and sequence of most two- and three-semester physics courses nationwide. We have worked to make physics interesting and accessible to students while maintaining the mathematical rigor inherent in the subject. With this objective in mind, the content of this textbook has been developed and arranged to provide a logical progression from fundamental to more advanced concepts, building upon what students have already learned and emphasizing connections between topics and between theory and applications. The goal of each section is to enable students not just to recognize concepts, but to work with them in ways that will be useful in later courses and future careers. The organization and pedagogical features were developed and vetted with feedback from science educators dedicated to the project. VOLUME III Unit 1: Optics Chapter 1: The Nature of Light Chapter 2: Geometric Optics and Image Formation Chapter 3: Interference Chapter 4: Diffraction Unit 2: Modern Physics Chapter 5: Relativity Chapter 6: Photons and Matter Waves Chapter 7: Quantum Mechanics Chapter 8: Atomic Structure Chapter 9: Condensed Matter Physics Chapter 10: Nuclear Physics Chapter 11: Particle Physics and Cosmology