

General Chemistry 10th Edition Petruc

ENGINEERING APPLICATIONS IN SUSTAINABLE DESIGN AND DEVELOPMENT is an invaluable resource for today's engineering student. Focusing on pressing contemporary issues, the text puts product design in the context of models of sustainability. Relevant case studies from across the globe will be of interest to engineers in training, and active learning exercises in each chapter help students learn to apply theory to real world situations. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

La 4eme de couv. indique : "This is a book about discovery and disaster, exploitation and invention, warfare and science, and the relationship between human beings and the chemical elements that make up our planet. It is an introduction to chemistry as you never thought it at school."

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This book explores the relationship between the content of chemistry education and the history and philosophy of science (HPS) framework that underlies such education. It discusses the need to present an image that reflects how chemistry developed and progresses. It proposes that chemistry should be taught the way it is practiced by chemists: as a human enterprise, at the interface of scientific practice and HPS. Finally, it sets out to convince teachers to go beyond the traditional classroom practice and explore new teaching strategies. The importance of HPS has been recognized for the science curriculum since the middle of the 20th century. The need for teaching chemistry within a historical context is not difficult to understand as HPS is not far below the surface in any science classroom. A review of the literature shows that the traditional chemistry classroom, curricula, and textbooks while dealing with concepts such as law, theory, model, explanation, hypothesis, observation, evidence and idealization, generally ignore elements of the history and philosophy of science. This book proposes that the conceptual understanding of chemistry requires knowledge and understanding of the history and philosophy of science. "Professor Niaz's book is most welcome, coming at a time when there is an urgently felt need to upgrade the teaching of science. The book is a huge aid for adding to the usual way - presenting science as a series of mere facts - also the necessary mandate: to show how science is done, and how science, through its history and philosophy, is part of the cultural development of humanity." Gerald Holton, Mallinckrodt Professor of Physics & Professor of History of Science, Harvard University "In this stimulating and sophisticated blend of history of chemistry, philosophy of science, and science pedagogy, Professor Mansoor Niaz has succeeded in offering a promising new approach to the teaching of fundamental ideas in chemistry. Historians and philosophers of chemistry --- and above

Medical University of South Carolina At last. . . a combined chemistry & physics nursing anesthesia text. This textbook offers combined coverage of chemistry and physics to help students learn the content needed to master the underlying principles of nursing anesthesia. Because many graduate nursing students are uncomfortable with chemistry and physics, this text presents only the specific content in chemistry and physics that relates to anesthesia. Written in a conversational, accessible style, the book teaches at a highly understandable level, so as to bridge the gap between what students recall from their undergraduate biochemistry and physics courses, and what they need to know as nurse anesthetists. The book contains many illustrations that demonstrate how the scientific concepts relate directly to clinical application in anesthesia. Chapters cover key topics relating to anesthesiology, including the basics of both chemistry and physics, fluids, a concentration on gas laws, states of matter, acids and bases, electrical circuits, radiation, and radioactivity. With this text, students will benefit from: A review of the math, chemistry, and physics basics that relate to clinical anesthesia A conversational presentation of just what students need to know, enabling a fast and complete mastery of clinically relevant scientific concepts Heavy use of illustrations throughout chapters to complement the text End-of-chapter review questions that help students assess their learning PowerPoint Slides available to qualified instructors.

The development of "tailormade" electrode surfaces using electroactive polymer films has been one of the most active and exciting areas of electrochemistry over the last 15 years. The properties of these materials have been examined by a wide range of scientists from a variety of perspectives, and now electroactive polymer research is considered to be a reasonably mature area of research endeavor. Much is now understood about the fundamental mechanism of conduction in these materials. A wide range of electrochemical techniques may be used to probe the conductivity processes in these materials, and more recently, a number of in situ spectroscopic techniques have been used to further elucidate the structure of these materials. The in situ spectroscopies and allied techniques have also been used to obtain correlations between structure and redox activity. The applications found for electroactive polymers are many and varied, and range from thin film amperometric chemical and biological sensors, electrocatalytic systems, drug delivery devices, and advanced battery systems through to molecular electronic devices. The research literature on electroactive polymers is truly enormous and can daunt even the most hardened researcher. The vast quantity of material reported in the literature can also intimidate beginning graduate students. Hence the present book. The original idea for this book arose as a result of a series of lectures on chemically modified electrodes and electroactive polymers given by the writer to final-year undergraduates at Trinity College Dublin.

This book combines emulsion knowledge into a single, comprehensive volume, ideal for professionals and students involved in the areas of

pharmaceutical science who are looking to learn about this emergent research concept. Compiles the step-by-step investigations made concerning the potential of nanosized emulsions on both drug delivery and drug targeting areas by different group of scientists in various laboratories across the world Inverts the common nano-emulsions coverage trend of focusing on focused on the particulate system itself, instead exploring the way to turn nanosized emulsions as biomedical tool, as well as, treating the in vitro and in vivo aspects after administration Provides an overview of the current state-of-the art regarding the development of tocol emulsions, emulsion adjuvants in immunization research, oxygen-carrying emulsions (called as fluorocarbon emulsion) and emulsions for delivering drugs to nasal and topical (ocular and transdermal) routes

Setelah lebih dari sepuluh tahun mengampu mata kuliah bidang kimia anorganik, penulis menyadari bahwa jumlah bahan ajar atau buku teks bidang kimia anorganik yang berbahasa Indonesia masih terbatas, sementara buku teks yang kebanyakan berbahasa Inggris belum dapat dipahami secara baik oleh mahasiswa. Oleh karena itu, perlu adanya banyak buku ajar berbahasa Indonesia yang disusun secara sederhana, sistematis, dan sesuai dengan tingkatan mahasiswa sebagai acuan perkuliahan agar lebih mengefisienkan dan mengefektifkan proses pembelajaran. Pokok bahasan dalam buku ini merupakan bagian dari kimia anorganik yang memfokuskan pada struktur atom, struktur senyawa, dan ikatan kimia dalam senyawa anorganik. Buku ini dipersiapkan untuk digunakan sebagai salah satu bahan ajar bagi mahasiswa kimia perguruan tinggi tahun pertama yang mengambil perkuliahan bidang kimia anorganik, yang secara khusus membahas konsep dasar kimia anorganik, yaitu struktur dan ikatan kimia. Di samping itu, buku ini dapat juga digunakan sebagai bahan bacaan pelengkap bagi para pengampu kimia anorganik dari program studi Kimia dan Pendidikan Kimia. Karena pengguna buku ajar ini merupakan mahasiswa tahun pertama/awal maka penyajian materi tidak dilengkapi dengan penjabaran matematika secara detail, tetapi disusun secara sederhana dan singkat tanpa mengurangi prinsip dasar untuk setiap topik. Dengan demikian, diharapkan buku ajar ini dapat bermanfaat bagi mahasiswa dalam mempermudah memahami pokok bahasan yang dipelajari dan menjadi dasar bagi mata kuliah lanjut dalam mata kuliah Kimia Anorganik. Dalam buku ajar ini pembahasan tentang struktur ditekankan pada senyawa anorganik yang dibentuk oleh unsur utama. Meskipun demikian, sedikit pembahasan untuk unsur logam transisi (struktur senyawa kompleks) disajikan juga sebagai tambahan karena kompleks secara umum termasuk senyawa anorganik. Pemahaman lebih lanjut tentang struktur dan ikatan kimia kompleks dapat dibaca pada buku Kimia Koordinasi. Untuk penjelasan struktur dan ikatan dalam kimia anorganik secara lengkap dan rinci, pembaca dapat membaca buku acuan sebagaimana disebutkan dalam bagian akhir buku ini.

A modern and concise treatment of the solid state electronic devices that are fundamental to electronic systems and information technology is provided in this book. The main devices that comprise semiconductor integrated circuits are covered in a clear manner accessible to the wide range of scientific and engineering disciplines that are impacted by this technology. Catering to a wider audience is becoming increasingly important as the field of electronic materials and devices becomes more interdisciplinary, with applications in biology, chemistry and electro-mechanical devices (to name a few) becoming more prevalent. Updated and state-of-the-art advancements are included along with emerging trends in electronic devices and their applications. In addition, an appendix containing the relevant physical background will be included to assist readers from different disciplines and provide a review for those more familiar with the area. Readers of this book can expect to derive a solid foundation for understanding modern electronic devices and also be prepared for future developments and advancements in this far-reaching area of science and technology.

?Buku ini terdiri atas 12 bab, yang mencakup seluruh materi pada Kimia SMA/MA dari kelas X sampai kelas XII. Pada setiap bab, terdapat

chemistry, embracing the power of visual learning and conquering the challenges of effective problem solving and assessment.

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"For a first course in Materials Sciences and Engineering taught in the departments of materials science, mechanical, civil and general engineering. This text provides balanced, current treatment of the full spectrum of engineering materials, covering all the physical properties, applications and relevant properties associated with engineering materials. It explores all of major categories of materials while also offering detailed examinations of a wide range of new materials with high-tech applications."--Publisher's website.

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