Modern Inorganic Chemistry

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Introduction to Modern Inorganic Chemistry
Modern Inorganic Chemistry
K.M. Mackay and R. Ann Mackay
Program
Industrial Inorganic Chemistry
From Elements to Applications
A Text Book of Modern Inorganic Chemistry
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Modern Inorganic Chemistry
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Modern Aspects of Inorganic Chemistry
An Intermediate Text
Modern inorganic Chemistry
Mellor's Modern Inorganic Chemistry, Revised and Edited by G.D. Parkes in Collaboration with J.W. Mellor
Advanced Inorganic Chemistry - Volume II

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Metal Dihydrogen and σ-Bond Complexes Springer Science & Business Media
Inorganic pharmaceutical chemistry text geared to actual practice in the profession of pharmacy & the health sciences. Provides theoretical & practical background to students. Compendial references.
The Jahn-Teller Effect and Vibronic Interactions in Modern Chemistry Marcel Dekker Incorporated
A revised and updated English edition of a textbook based on teaching at the final year undergraduate and graduate level. It presents structure and bonding, generalizations of structural trends, crystallographic data, as well as highlights from the recent literature.
Introduction to Modern Inorganic Chemistry John Wiley & Sons
According to R.H. Crabtree, Metal Dihydrogen and sigma-Bond Complexes is described as `the definitive account of twentieth-century work in the area of sigma complexation'. It covers not only Kubas' discovery of dihydrogen coordination and the study of its structure and general properties but also discusses both the theoretical beliefs and experimental results of bonding and activation of dihydrogen on metal centers and the coordination and activation of C-H, B-H, X-H, and X-Y bonds, giving an overview of `one of the hottest areas in chemistry'.
VI. Topics in Modern Inorganic Chemistry ; November 26-28, 1962, Houston, Texas McGraw-Hill College
In 1988 the Mossbauer effect community completed 30 years of continual contribution to the fields of nuclear physics, solid state science, and a variety of related disciplines. To celebrate this anniversary, Professor Gonser of the Universitat des Saarlandes has contributed a chapter to this volume on the history of the effect. Although Mossbauer spectroscopy has reached its mature years, the chapters in this volume illustrate that it is still a dynamic field of science with applications to topics ranging from permanent magnets to biologi cal mineralization. During the discussion of a possible chapter for this volume, a potential author asked, "Do we really need another Mossbauer book?" The editors responded in the affirmative because they believe that a volume of this type offers several advantages. First, it provides the author with an opportunity to write a personal view of the subject, either with or without extensive pedagogic content. Second, there is no artificially imposed restriction on length. In response to the question, "How long should my chapter be?," we have responded that it should be as long as is necessary to clearly present, explain, and evaluate the topic. In this type of book, it is not necessary to condense the topic into two, four, or eight pages as is now so often a requirement for publication in the research literature.
Modern Approach to Inorganic Chemistry Springer Science & Business Media
Comprehensive Inorganic Chemistry II reviews and examines topics of relevance to today's inorganic chemists. Covering more interdisciplinary and high impact areas, Comprehensive Inorganic Chemistry II includes biological inorganic

chemistry, solid state chemistry, materials chemistry, and nanoscience. The work is designed to follow on, with a different viewpoint and format, from our 1973 work, Comprehensive Inorganic Chemistry, edited by Bailar, Emeléus, Nyholm, and Trotman-Dickenson, which has received over 2,000 citations. The new work will also complement other recent Elsevier works in this area, Comprehensive Coordination Chemistry and Comprehensive Organometallic Chemistry, to form a trio of works covering the whole of modern inorganic chemistry. Chapters are designed to provide a valuable, long-standing scientific resource for both advanced students new to an area and researchers who need further background or answers to a particular problem on the elements, their compounds, or applications. Chapters are written by teams of leading experts, under the guidance of the Volume Editors and the Editors-in-Chief. The articles are written at a level that allows undergraduate students to understand the material, while providing active researchers with a ready reference resource for information in the field. The chapters will not provide basic data on the elements, which is available from many sources (and the original work), but instead concentrate on applications of the elements and their compounds. Provides a comprehensive review which serves to put many advances in perspective and allows the reader to make connections to related fields, such as: biological inorganic chemistry, materials chemistry, solid state chemistry and nanoscience. Inorganic chemistry is rapidly developing, which brings about the need for a reference resource such as this that summarise recent developments and simultaneously provide background information. Forms the new definitive source for researchers interested in elements and their applications; completely replacing the highly cited first edition, which published in 1973.

Inorganic Structural Chemistry Elsevier Science Limited

The field of gas phase inorganic ion chemistry is relatively new; the early studies date back approximately twenty years, but there has been intense interest and development in the field in the last ten years. As with much of modern chemistry, the growth in gas phase inorganic ion chemistry can be traced to the development of instrumentation and new experimental methods. Studies in this area require sophisticated instruments and sample introduc tion/ ionization methods, and often these processes are complicated by the need for state-selecting (or collisionally stabilizing) the reactive species in order to assign the chemistry unequivocally. At the present level of experimental development, a wide range of experiments on diverse ionic systems are possible and many detailed aspects of the chemistry can be studied. Gas Phase Inorganic Chemistry focuses on the reactions of metal ions and metal clusters, and on the study of these species using the available modern spectroscopic methods. Three of the twelve chapters cover the chemistry of ionic monometal transition metal ions and the

chemistry of these species with small diatomics and model organics. Two of the chapters focus on the studies of the chemical and physical properties of (primarily) transition metal clusters, and these chapters review experimental methods and capabilities. Two chapters also deal with the chemistry of transition metal carbonyl clusters, and these chapters address issues important to cluster growth and activation as well as the characterization of such species.

New Perspectives

Prentice Hall

Units and nomenclature; Atomic structure; Valency; The structures of the elements and their compounds; Reactions in water and in non-aqueous solvents; Co-ordination chemistry; The distribution and extraction of the chemical elements; Solvent extraction and ion exchange; The comparative chemistry of the representative elements; The comparative chemistry of the transition elements.

Modern Inorganic Pharmaceutical Chemistry

S. Chand Publishing

The first half of the title of this book may delude the uninitiated reader. The term '"Jahn-Teller effect," taken literally, refers to a special effect inherent in particular molecular systems. Actually, this term implies a new approach to the general problem of correlations between the structure and properties of any molecular polyatomic system, including solids. Just such a new approach, or concept (in some sense, a new outlook or even a new way of thinking), which leads not to one special effect but to a series of different effects and laws, is embodied in the many (~ 4000) studies devoted to the investigation and application of the Jahn-Teller effect. The term "vibronic interactions" seems to be most appropriate to the new concept, and this explains the origin of the second half of the title. The primary objective of this book is to present a systematic develop ment of the concept of vibronic interactions and its applications, and to illustrate its possibilities and significance in modern chemistry. In the first three chapters (covering about one-third of the book) the theoretical background of the vibronic concept and Jahn-Teller effect is given. The basic ideas are illustrated fully, although a comprehensive presentation of the theory with all related mathematical deductions is beyond the scope of this book. In the last three chapters the applications of theory to spectro scopy, stereochemistry and crystal chemistry, reactivity, and catalysis, are illustrated by a series of effects and laws.

Synthetic Inorganic Chemistry John Wiley & Sons

Stability constants are fundamental to understanding the behavior of metal ions in aqueous solution. Such understanding is important in a wide variety of areas, such as metal ions in biology, biomedical applications, metal ions in the environment, extraction metallurgy, food chemistry, and metal ions in many industrial processes. In spite of this importance, it appears that many inorganic chemists have lost an appreciation for the importance of stability constants, and the thermodynamic aspects of complex formation, with attention focused over the last thirty years on newer areas, such as organometallic chemistry.

This book is an attempt to show the richness of chemistry that can be revealed by stability constants, when measured as part of an overall strategy aimed at understanding the complexing properties of a particular ligand or metal ion. Thus, for example, there are numerous crystal structures of the Li+ ion with crown ethers. What do these indicate to us about the chemistry of Li+ with crown ethers? In fact, most of these crystal structures are in a sense misleading, in that the Li+ ion forms no complexes, or at best very weak complexes, with familiar crown ethers such as l2-crown-4, in any known solvent. Thus, without the stability constants, our understanding of the chemistry of a metal ion with any particular ligand must be regarded as incomplete. In this book we attempt to show how stability constants can reveal factors in ligand design which could not readily be deduced from any other physical technique.

Mössbauer Spectroscopy Applied to Inorganic Chemistry CRC Press

The easy way to get a grip on inorganic chemistry Inorganic chemistry can be an intimidating subject, but it doesn't have to be! Whether you're currently enrolled in an inorganic chemistry class or you have a background in chemistry and want to expand your knowledge, Inorganic Chemistry For Dummies is the approachable, hands-on guide you can trust for fast, easy learning. Inorganic Chemistry For Dummies features a thorough introduction to the study of the synthesis and behavior of inorganic and organometallic compounds. In plain English, it explains the principles of inorganic chemistry and includes worked-out problems to enhance your understanding of the key theories and concepts of the field. Presents information in an effective and straightforward manner Covers topics you'll encounter in a typical inorganic chemistry course Provides plain-English explanations of complicated concepts If you're pursuing a career as a nurse, doctor, or engineer or a lifelong learner looking to make sense of this fascinating subject, Inorganic Chemistry For Dummies is the quick and painless way to master inorganic chemistry.

Comprehensive Inorganic Chemistry II

John Wiley & Sons

Inorganic chemistry continues to generate much current interest due to its array of applications, ranging from materials to biology and medicine. Techniques in Inorganic Chemistry assembles a collection of articles from international experts who describe modern methods used by research students and chemists for studying the properties and structure

Introduction to Modern Inorganic Chemistry Springer Science & Business Media

Synthetic Inorganic Chemistry: New Perspectives presents summaries of the work of some of the most creative researchers in the field. The book highlights the most novel approaches and burgeoning applications of synthetic inorganic chemistry in development. Topics include non-precious metals in catalysis, smart inorganic polymers, new inorganic therapeutics, new photocatalysts for hydrogen production, and more. As the first volume in the Developments in Inorganic Chemistry series, this work is a valuable resource for students and researchers

working in inorganic chemistry and material science. Illustrates the scope and vitality of modern synthetic inorganic chemistry Shows the centrality of inorganic chemistry, addressing a variety of global challenges Serves to define the current, important and expanding roles of synthetic inorganic chemistry in interdisciplinary areas such as materials science, synthetic organic chemistry, homogeneous and heterogeneous catalysis

Techniques in Inorganic Chemistry Elsevier

Advanced Inorganic Chemistry - Volume II is a concise book on basic concepts of inorganic chemistry. Beginning with Coordination Chemistry, it presents a systematic treatment of all Transition and Inner-Transition chemical elements and their compounds according to the periodic table. Special topics such as Pollution and its adverse effects, chromatography, use of metal ions in biological systems, to name a few, are discussed to provide additional relevant information to the students. It primarily caters to the undergraduate courses (Pass and Honours) offered in Indian universities.

Modern Inorganic Chemistry in Australia and New Zealand Springer Science & Business Media

Satya Prakash's Modern Inorganic Chemistry(for Students of B.Sc., M.Sc. and Also Useful for Competitive Examinations)Modern Inorganic Synthetic ChemistryElsevier

Inorganic Chemistry For Dummies Oxford University Press

An introductory textbook on the structural principles of inorganic-chemical molecules and solids. Traditional concepts and modern approaches are considered and demonstrated with the aid of examples. The most important structural types are examined from different perspectives.

Mellor's Modern Inorganic Chemistry Springer Science & Business Media

This book provides an up-to-date survey of modern industrial inorganic chemistry in a clear and concise manner. Production processes are described in close detail, aspects such as the disposition of raw materials and energy consumption, the economic significance of the product and technical applications, as well as ecological problems, being discussed. From reviews of the previous edition: '... Overall this is an extremely useful, authoritative reference book dealing with a topic in which it is often difficult to obtain up-to-date information. ...' Chemistry and Industry 'One of few texts available that concisely describes the current state of industrial inorganic chemistry. ...' The New York Public Library '... and as for modern uses of inorganic chemistry, I'd recommend this book as a welcome addition to any professional library...' Chemtech 'This book fills an important niche in its sector. Industrial scientists and engineers, academics, and students can be recommended to turn to it with reasonable confidence that the most important areas are described. ...' Endeavour '... it fills a currently existing gap in the market.' Journal of Chemical Technology and Biotechnology

Metal Complexes in Aqueous Solutions Satya Prakash's Modern Inorganic Chemistry(for Students of B.Sc., M.Sc. and Also Useful for Competitive

Examinations)Modern Inorganic Synthetic Chemistry
Modern Inorganic Synthetic Chemistry, Second Edition captures, in five distinct sections, the latest advancements in inorganic synthetic chemistry, providing materials chemists, chemical engineers, and materials scientists with a valuable reference source to help them advance their research efforts and achieve breakthroughs. Section one includes six chapters centering on synthetic chemistry under specific conditions, such as high-temperature, low-temperature and cryogenic, hydrothermal and solvothermal, high-pressure, photochemical and fusion conditions. Section two focuses on the synthesis and related chemistry problems of highly distinct categories of inorganic compounds, including superheavy elements, coordination compounds and coordination polymers, cluster compounds, organometallic compounds, inorganic polymers, and nonstoichiometric compounds. Section three elaborates on the synthetic chemistry of five important classes of inorganic functional materials, namely, ordered porous materials, carbon materials, advanced ceramic materials, host-guest materials, and hierarchically structured materials. Section four consists of four chapters where the synthesis of functional inorganic aggregates is discussed, giving special attention to the growth of single crystals, assembly of nanomaterials, and preparation of amorphous materials and membranes. The new edition’s biggest highlight is Section five where the frontier in inorganic synthetic chemistry is reviewed by focusing on biomimetic synthesis and rationally designed synthesis. Focuses on the chemistry of inorganic synthesis, assembly, and organization of wide-ranging inorganic systems Covers all major methodologies of inorganic synthesis Provides state-of-the-art synthetic methods Includes real examples in the organization of complex inorganic functional materials Contains more than 4000 references that are all highly reflective of the latest advancement in inorganic synthetic chemistry Presents a comprehensive coverage of the key issues involved in modern inorganic synthetic chemistry as written by experts in the field

Gas Phase Inorganic Chemistry John Wiley & Sons

Topics in Modern Inorganic Chemistry Elsevier

Mellor's Modern Inorganic Chemistry

Life By Mark Manson
• Dog Man: Twenty Thousand Fleas Under The Sea: A Graphic Novel (dog Man #11): From The Creator Of Captain Underpants
• How To Catch A Mermaid