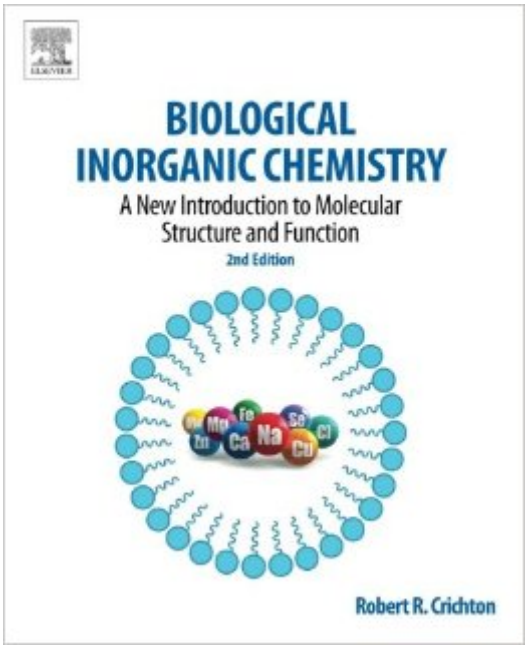
Biological Inorganic Chemistry, Second Edition: A New Introduction To Molecular Structure And Function



Synopsis

Biological Inorganic Chemistry: A New Introduction to Molecular Structure and Function, Second Edition, provides a comprehensive discussion of the biochemical aspects of metals in living systems. Beginning with an overview of metals and selected nonmetals in biology, the book then discusses the following concepts: basic coordination chemistry for biologists; structural and molecular biology for chemists; biological ligands for metal ions; intermediary metabolism and bioenergetics; and methods to study metals in biological systems. The book also covers metal assimilation pathways; transport, storage, and homeostasis of metal ions; sodium and potassium channels and pumps; magnesium phosphate metabolism and photoreceptors; calcium and cellular signaling; the catalytic role of several classes of mononuclear zinc enzymes; the biological chemistry of iron; and copper chemistry and biochemistry. In addition, the book discusses nickel and cobalt enzymes; manganese chemistry and biochemistry; molybdenum, tungsten, vanadium, and chromium; non-metals in biology; biomineralization; metals in the brain; metals and neurodegeneration; metals in medicine and metals as drugs; and metals in the environment.Winner of a 2013 Textbook Excellence Awards (Texty) from the Text and Academic Authors AssociationReadable style, complemented by anecdotes and footnotesEnables the reader to more readily grasp the biological and clinical relevance of the subjectColor illustrations enable easy visualization of molecular mechanisms

Book Information

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Customer Reviews

This book is an essential source for anyone teaching the biological side of chemistry. It’s also a very

good textbook for any biology student interested in non-carbon chemistry. Whereas, some parts of this book (ion channels, Ca-signaling) are discussed in several other textbooks several metal and non-metal element are usually completely ignored in an average biochemistry books. This book offers a easy to read source for not only finding a list of essential elements for life but also their role in several biologically important molecules. Moreover each element have separate chapter which makes this book much easier to read then the first edition.

I like it, the book is very modern and tidy, it have many information. the chapters are correct and simple. excellent

Good textbook

Biological Inorganic Chemistry, Second Edition: A New Introduction to Molecular Structure and Function Biological Inorganic Chemistry: Structure and Reactivity Molecular Visions (Organic, Inorganic, Organometallic) Molecular Model Kit #1 by Darling Models to accompany Organic Chemistry Inorganic and Organometallic Reaction Mechanisms (Brooks/Cole Series in Inorganic Chemistry) Inorganic Chemistry: Principles of Structure and Reactivity (4th Edition) Metals in Biological Systems (Ellis Horwood Series in Inorganic Chemistry) Organic Chemistry: Structure and Function Bioinorganic Chemistry -- Inorganic Elements in the Chemistry of Life: An Introduction and Guide Introduction to Cluster Chemistry (Prentice Hall Inorganic and Organometallic Chemistry Series) Anatomy & Physiology: The Unity of Form and Function: Anatomy & Physiology: The Unity of Form and Function Structural Methods in Molecular Inorganic Chemistry 1006/ Researcher Inorganic Chemistry D-set (HGS Polyhedron Molecular Model) Learn VBA Fast, Vol. III: Excel function design course, with practice exercises (The VBA Function Design Course Book 3) Molecular Pathology of Nervous System Tumors: Biological Stratification and Targeted Therapies (Molecular Pathology Library) Anti-Cancer Molecules: Structure, Function, and Design (Annals of the New York Academy of Sciences) Advanced Organic Chemistry: Part A: Structure and Mechanisms: Structure and Mechanisms Pt. A Chemistry: An Introduction to General, Organic, and Biological Chemistry (11th Edition) Landmarks in Organo-Transition Metal Chemistry: A Personal View (Profiles in Inorganic Chemistry) NMR Spectroscopy in Inorganic Chemistry (Oxford Chemistry Primers) Modern Quantum Chemistry: Introduction to Advanced Electronic Structure Theory (Dover Books on Chemistry)