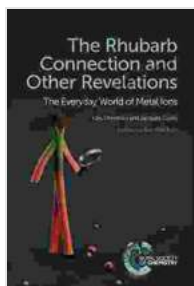


# The Everyday World of Metal Ions: A Comprehensive Guide

Embark on an extraordinary journey into the captivating realm of metal ions, the elemental building blocks that orchestrate a symphony of chemical reactions and shape our everyday lives. With 'The Everyday World of Metal Ions' as your guide, witness the ubiquitous presence of these microscopic wonders and unravel the secrets that lie within their atomic structures.



## The Rhubarb Connection and Other Revelations: The Everyday World of Metal Ions by Lars Öhrström

★★★★★ 5 out of 5

Language : English  
File size : 6879 KB  
Text-to-Speech : Enabled  
Screen Reader : Supported  
Enhanced typesetting : Enabled  
Word Wise : Enabled  
Print length : 188 pages



## Metal Ions: The Unsung Heroes of Chemistry

Metal ions, the positively charged counterparts of metallic elements, are the unsung heroes of chemistry, quietly playing a pivotal role in countless processes that govern our world. From the vibrant hues of stained glass to the intricate workings of our bodies, metal ions leave an indelible mark on our surroundings.

# THE CHEMISTRY OF COLOURED GLASS

Coloured glass is a material that has been developed for a wide range of applications. It is made by adding various metal ions to the glass. The color of the glass depends on the type of metal ion used. The most common colors are green, blue, red, and yellow.

## COLOURED GLASS

### COMPOSITION

$\text{SiO}_2$  70-75%

silicon dioxide

$\text{CaO}$  10-15%

calcium oxide

$\text{Na}_2\text{O}$  13-16%

sodium oxide

Other metal ions like iron, cobalt, nickel, manganese, selenium, cerium, and chromium are also used to produce different colors.

These metal ions are added to the glass in small amounts (0.1% to 1%).

The color of the glass depends on the type of metal ion used.

For example, iron ions produce green glass, cobalt ions produce blue glass, and nickel ions produce red glass.

Other metal ions like manganese, selenium, cerium, and chromium are also used to produce different colors.

These metal ions are added to the glass in small amounts (0.1% to 1%).

The color of the glass depends on the type of metal ion used.

For example, iron ions produce green glass, cobalt ions produce blue glass, and nickel ions produce red glass.

Other metal ions like manganese, selenium, cerium, and chromium are also used to produce different colors.

These metal ions are added to the glass in small amounts (0.1% to 1%).

The color of the glass depends on the type of metal ion used.

For example, iron ions produce green glass, cobalt ions produce blue glass, and nickel ions produce red glass.

Other metal ions like manganese, selenium, cerium, and chromium are also used to produce different colors.



These are the colors of the glass and the metal ions used to produce them. The color of the glass depends on the type of metal ion used.

© 2018 by The Chemistry of Coloured Glass. All rights reserved. For more information, visit [www.chemistryofcolouredglass.com](http://www.chemistryofcolouredglass.com).

Dive into the pages of 'The Everyday World of Metal Ions' to discover the remarkable diversity of these chemical entities, their unique properties, and the fascinating applications that stem from their atomic configurations.

## Exploring the Properties of Metal Ions

Within the depths of 'The Everyday World of Metal Ions,' embark on a voyage of discovery, exploring the fundamental properties that define these elemental building blocks. Delve into the intricacies of:

- **Atomic structure:** Uncover the arrangement of protons, electrons, and neutrons within metal ions, understanding how it influences their behavior.

- **Ionization potential:** Witness the energy required to remove an electron from a metal ion, a crucial factor in determining its reactivity.
- **Oxidation states:** Explore the diverse oxidation states of metal ions, shedding light on their ability to participate in various chemical reactions.

## **Metal Ions in the Spotlight: Everyday Applications**

'The Everyday World of Metal Ions' illuminates the myriad applications of these chemical entities in our daily lives, showcasing their practical significance in:

- **Medicine:** Discover the therapeutic properties of metal ions, their use in diagnostic imaging, and their role in combating diseases like cancer.
- **Industry:** Witness the transformative power of metal ions in metallurgy, catalysis, and the production of electronic devices.
- **Agriculture:** Explore the essential role of metal ions in plant nutrition, soil health, and optimizing crop yields.

## **'The Everyday World of Metal Ions': A Treasure Trove of Knowledge**

'The Everyday World of Metal Ions' stands as an indispensable resource for students, researchers, and anyone captivated by the wonders of chemistry. Its comprehensive coverage, coupled with vivid illustrations and engaging narratives, makes it an accessible guide for all.

Within the pages of this captivating book, you will:

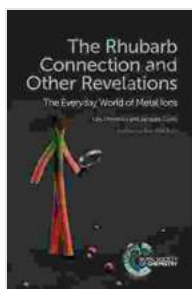
- Gain a profound understanding of metal ions and their properties.

- Discover the diverse applications of metal ions in various fields.
- Unravel the intricate connections between metal ions and everyday life.

## Embark on Your Metal Ions Adventure Today

Embark on an extraordinary journey into the world of metal ions, where hidden wonders await your discovery. Free Download your copy of 'The Everyday World of Metal Ions' today and unlock the secrets of these microscopic marvels that shape our world.

Let 'The Everyday World of Metal Ions' be your guide as you immerse yourself in the fascinating realm of chemistry, unraveling the intricate tapestry of metal ions and their profound impact on our lives.

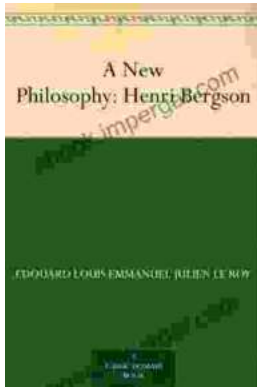


### The Rhubarb Connection and Other Revelations: The Everyday World of Metal Ions by Lars Öhrström

★★★★★ 5 out of 5

Language : English  
File size : 6879 KB  
Text-to-Speech : Enabled  
Screen Reader : Supported  
Enhanced typesetting : Enabled  
Word Wise : Enabled  
Print length : 188 pages





## **New Philosophy Henri Bergson: A Revolutionary Approach to Understanding Reality**

In his groundbreaking work, *New Philosophy Henri Bergson*, the renowned philosopher challenges traditional notions of time, space, and reality....



## **Discover the Secrets of Optimal Health with "The Healthy Life Cook 2nd Edition"**

Preface: Embark on a Transformative Culinary Journey Welcome to the world of "The Healthy Life Cook 2nd Edition," an indispensable culinary companion designed to empower...