

Second Edition

Practical Approaches to BIOLOGICAL INORGANIC CHEMISTRY

Edited by Robert R. Crichton and Ricardo O. Louro

A review of spectroscopic and analytical techniques used to investigate the structures and mechanisms of biological inorganic systems that contain metals

Practical Approaches to Biological Inorganic Chemistry, Second Edition is a hands-on text that guides readers from the basic principles and techniques of biological inorganic chemistry to the information that can be derived from these techniques. Examples are drawn from the experience of the authors, all of whom are recognized experts in the field. Each chapter presents an overview of a technique, including relevant theory, clearly describes what it is and how it works, then explains how the technique is used to evaluate biological structures.

Now in its second edition, the book is updated throughout to reflect the latest developments in all techniques discussed. Practical examples, problems, and figures illustrate each technique and aid in understanding. The text is designed for researchers and students who want to learn both the basics and more advanced aspects of key methods in biological inorganic chemistry.

Key Features

- Includes new chapters on Raman spectroscopy and molecular magnetochemistry
- Reflects the latest developments in the field with updated figures and content throughout
- Provides examples and worked-out problems to illustrate the material and test the reader's understanding of each technique

Robert R. Crichton is emeritus professor, faculty of science, Université Catholique de Louvain in Belgium. He has nearly 40 years of experience in teaching the subject and has published over 200 scientific articles and several books. Since 1985 he has organized a series of over 20 advanced courses on metals in biology in Louvain-la-Neuve, which have trained over 1300 doctoral and postdoctoral students, many of whom are today leaders in the field. The third edition of his textbook, *Biological Inorganic Chemistry: A New Introduction to Molecular Structure and Function* received the 2019 TEXTY Textbook Excellence Award in physical sciences from the Text and Academic Authors Association.

Ricardo O. Louro is a researcher and professor at Universidade Nova de Lisboa. He has more than 15 years of experience in teaching the subject and has published over 80 research articles on the broad area of Biological Inorganic Chemistry and edited and contributed to several books. Since 2009, together with Robert Crichton, he has organized advanced courses on metals in biology in several locations across Europe that have helped shape the scientific community that investigates this area of research.



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