

Book Review

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Bioorganometallics: biomolecules, labeling, medicine

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The term 'bioorganometallics' refers to the study of organometallic moieties of biological and medical interest; hitherto this has received scant acceptance as a field of chemistry. Recent developments in research such as the discovery of the anticancer activity of aryl ruthenium complexes and the growing number of organometallic active sites discovered at the heart of enzymes has led to a re-evaluation of this burgeoning subject. The publication of this text serves to define the field and introduce a variety of opportunities for developing and applying bioorganometallic research. This it does well as the contributors are unquestionably leaders in the field.

The publication of this text is timely and I would particularly recommend it to those pursuing medicinal, bioinorganic or organometallic research. It would be equally useful as a reference for those constructing postgraduate or later-stage undergraduate courses in bioinorganic, inorganic medicine or bioanalysis.

The first chapter introduces bioorgano metallic chemistry and the three main applications covered in the book: enzymatics, bioanalysis and medicine. This is achieved admirably and the authors communicate an obvious passion for the rich history of the subject.

Chapters 2–4 cover organometallic compounds in medicine. This content is often classified as medicinal inorganic chemistry. The inclusion of organometallic therapies within this text is extremely important and will be of particular interest to organometallic chemists, who will recognize the classes of complexes mentioned, but will not necessarily be aware of their great potential in pharmaceuticals.

Chapters 5–10 cover the labeling, tracing and sensing of biomolecules. This represents over half of the book and is very detailed. Consequently this text is a must for researchers active in this field but some of the detail is of limited general interest.

Chapters 11 and 12 cover bioorgano metallic enzymatics. This is currently a very dynamic area of research with many new active sites discovered every year. This considered, this account is disappointingly short. Written by leaders in the field, these chapters provide a

valuable introduction but by no means a comprehensive review of the subject. Unfortunately the authors of chapter 12 'Synthetic models of bioorganometallic reaction centers' missed the opportunity to direct the reader to several useful reviews of this topic and consequently have overlooked some key developments.

Overall the publication of *Bioorganometallics: Biomolecules, Labeling, Medicine* is warmly welcomed and provides an excellent introduction and literature resource to organometallic compounds in biology and medicine. I would urge anyone with an interest in bioinorganic chemistry, organometallic chemistry or biomolecule labeling to obtain a copy—the strength and breadth of bioorganometallic research will surprise and inspire you!

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