Unfortunately, a negative remark about the layout has to be made, as it does not always appear to be as good as it ought to be, in view of the importance of the covered arguments and of the good scientific level of the book.

Marco Zecca
Dipartimento di Chimica Inorganica, Metallorganica e Analitica
Università di Padova
Padua, Italy

Iron Biominerals

Edited by R. B. Frankel and R. P. Blakemore, Plenum Publishing Corporation, New York, 1991, 435 pp, US$ 95.-

This book represents the Proceedings of a Conference on Iron Biominerals held from July 31 to Aug. 1, 1989 at the University of New Hampshire, Durham, New Hampshire. It therefore gives the state-of-the-art in the comprehension and elucidation of the mechanisms of acquisition, storage and deposition of the essential element iron into living organisms. Owing to the relevance of this essential element, the reading of this book is recommended not only to researchers in this field, but also, as a general background, to biochemists, inorganic chemists, medical doctors, and solid state experts, the latter point arising from the peculiar connection, discussed in the book, between living organisms and the formation of ordered inorganic materials.

Great importance is given to magnetotactic bacteria, as expected considering that one of the Editors, Professor R. P. Blakemore, first discovered and characterized these microorganisms.

The book contains 31 articles which have been grouped under 5 main headings, titled Iron Biomineralization, Biological Iron Oxides, Biological Iron Sulfides, Iron Storage in Ferritin, Iron Acquisition.

In Iron Biomineralization three general articles regarding iron biominerals, biominerals and homeostasis, and crystallochemical control of iron oxide biomineralization introduce useful concepts and information which will be developed in most of the following contributions. The section Biological Iron Oxides contains many reports about magnetotactic bacteria and iron biomineralization processes in bacteria and invertebrates. In Biological Iron Sulfides, the magnetotactic organisms from sulfidic environments are reviewed. The aspects of the storage and mobilization of iron in ferritin are summarized in the section on Iron Storage in Ferritin, which includes also two contributions dealing with magnetic resonance imaging of brain. In Iron Acquisition the uptake mechanisms of this metal in microorganisms and in mammals are discussed.

Finally, the book in its 435 pages also contains a large number of references which constitute a precious source of further information.

A. Scozzafava
Laboratorio di Chimica Bioinorganica
via G. Capponi 7
50121 Florence, Italy