

Book Review

EDITED BY KENNETH D. KARLIN
(SERIES EDITOR) and EDWARD
I. STIEFEL (VOLUME EDITOR)

**Progress in Inorganic Chemistry Vol 52.
Dithiolene Chemistry: Synthesis,
Properties and Applications**

Wiley-VCH, 2004,
738 pp; price £93.95
ISBN 0-471-37829-1

Forty years after the initial discoveries in the area of metal dithiolene chemistry, this special edition of *Progress in Inorganic Chemistry* devotes over 700 pages to the development of these unique complexes in a very diverse range of fields. Despite the intense interest in these complexes, this is the first text that brings together in-depth articles on such a range of relevant aspects of their chemistry, physical properties and uses. The book has 11 chapters that cover all the key aspects of dithiolenes, including synthesis, structural trends, electrochemistry, spectroscopy, optical, solid-state and biological properties. This is a key strength of the book and allows coverage of applications as diverse as superconductors, sensors, laser dyes, enzyme modelling

and magnetic materials. The quite comprehensive coverage that is achieved is an excellent mechanism to encourage specialists within one area of dithiolene chemistry to become better acquainted with other aspects of the subject, with the potential to lead to new innovative chemistry in the field.

Each of the chapters gives a self-contained review of a selected area of dithiolene chemistry, and although this inevitably leads to some repetition of introductory material, this is not unduly intrusive. Thus, the book can be taken as either a single text giving an overview of the field or can be accessed through individual articles, each relevant in its own specialist area. Authors are authoritative figures within the relevant field, and the multi-author format also crucially allows an unprecedented level of depth and content in each chapter. With chapters typically of 50–100 pages, each topic is dealt with in a level of detail that has generally not been achieved before, even in individual review articles on the sub-disciplines.

The appearance of this book is very timely. *Comprehensive Coordination Chemistry II* (Elsevier, 2004), unlike its predecessor, has no chapter devoted to metal

dithiolene complexes and no other single source of detailed information that I am aware of is currently available. The recognition of dithiolenes as important ligands in bioinorganic chemistry has also been largely developed in the last 10 years, and this provides an interesting new perspective that earlier general reviews could not have not addressed in detail.

The book is clearly aimed at researchers in dithiolene and related areas. With highly specialist chapters and no single introductory overview, it is not likely to be the best starting point for undergraduates or researchers in other fields who are seeking a first introduction. A price of £93.95 also suggests that the book will appeal to libraries and research groups rather than individuals. I would recommend this book as an extremely useful addition to a well-stocked chemistry library and an essential single-volume overview for interested research groups.

Neil Robertson

Department of Chemistry
University of Edinburgh, UK

DOI:10.1002/aoc.639