Since this material was generated on a computer, the editor has made use of the indexing capabilities of the computer such that the indexing is probably one of the most detailed that one can ever expect to see in a book of this kind. Thus every compound is listed in a compound index not only in the standard *Chemical Abstracts* order but also in various permuted orders such that one can look up any element component to find a particular compound. In addition there is a general subject index and an author index for the innumerable references. The formula index also includes the structural presentation of the specific molecule, not just simply its formula, and also indications of whether this species is simply being used as a reactant or is a compound whose preparation is described, etc. An indication of the completeness of the compound index can be obtained from the fact that it is 110 pages long while the author index is 37 pages long. While this is obviously useful, the reader will have to decide whether the additional cost that this must have generated is worthwhile.

This book contains an incredible amount of real preparative chemistry and as such it makes fascinating reading to those whose interests lie in the subtleties of chemical reactions. This series should certainly be purchased by those who call themselves synthetic chemists.

The Editor's desk

The Chemistry of Macrocyclic Ligand Complexes by Leonard F. Lindoy. Cambridge University Press, The Edinburgh Building, Shaftesbury Rd., Cambridge CB2 2RU, 1989. Price $69.50. ISBN 0-521-25261-X.

Lindoy has been involved with macrocyclic chemistry throughout his career and is therefore eminently suited to present an exposé of this subject. The book begins with a survey of the various types of natural and synthetic macrocycles together with aspects of their structure, especially hole size. This is followed by a chapter dealing with synthetic procedures presented in a fairly general fashion. It is a useful and complete survey of a wide range of strategies, especially template and ring closures. The third chapter extends the categories of macrocycle by discussing macrocycles with pendent groups, and interlocked and binucleating macrocycles. This is followed by a survey of the polyether crown species, cryptands, and related species. The word 'survey' is pertinent here because this chapter does not contain an in-depth discussion of these species but rather presents the various types of such molecule and their principal properties with leads via the bibliography to further study. There is, however, further discussion of the polyethers in the next chapter which describes host–guest interactions including some of the elegant supramolecular work. This chapter also covers cyclophanes and cyclodextrin.

The next three chapters deal with thermodynamic, kinetic, mechanistic and redox aspects of the macrocycles. These chapters too provide a useful survey but do not attempt a comprehensive review. Redox behaviour is discussed in terms of the specific factors which determine redox behaviour in macrocycles, and mainly but not exclusively in relation to nickel and copper complexes. The final chapter deals briefly with naturally occurring macrocycles such as cyclic antibiotics, cytochromes, vitamin B_{12} etc. The book covers a great deal of ground but lacks a really comprehensive or detailed coverage of any specific issue. To have done so would have obviously produced a much larger work. Thus the book will be invaluable to those newly entering the field and wishing to obtain an overview, or to experts in one area of macrocyclic chemistry requiring a broader perspective. It will not be so useful to the expert looking for further enlightenment in his own field.

The Editor's desk

Carbon Dioxide Activation by Metal Complexes by Arno Behr. VCH, Weinheim, 1988. 161 pp. DM 160.00. ISBN 3-527-26903-7.

This book appears to provide a fairly comprehensive review of the subject of CO_2 activation by transition metal complexes. Both stoichiometric and catalytic reactions relating to the reactions of CO_2 with various hydrocarbons, mediated in some way by metal complexes, are discussed in detail. Photocatalytic and electrocatalytic reactions are not included.

Such a book is a useful addition to the literature at this time when there is concern about the increasing concentration of CO_2 in the Earth's atmosphere. As pointed out by the author, there are many chemical reactions which could be used to transform CO_2 into useful products wherever it occurs in higher than normal concentrations. The vast majority of the 800 literature references are from the 1975–1985 decade, reflecting the recent research activity in this area. Although the publisher implies that the literature is covered up to 1987, it seems unlikely that this is so since there are only a handful of references from 1986 and 1987.

The layout of the book is in four chapters, with the first two being relatively short and introductory in nature. These first two chapters provide a general background and discuss the aims of the book. The third and fourth chapters constitute the bulk of the book and discuss, respectively, stoichiometric and catalytic reactions of CO_2. A large portion of each of these chapters is devoted to quite detailed discussions of work from the author's laboratory, which makes the book a little unbalanced. In some places unnecessary detail is included.