

## Book Review

*Methodicum Chemicum, Volume 7, Hauptgruppenelemente und deren Verbindungen*, F. Korte, editor-in-chief, H. Zimmer and K. Niedenzu, volume editors, Georg Thieme-Verlag, Stuttgart and Academic Press, New York/San Francisco/London, 1976, x + 940 pages, DM 460 (in German).

The idea behind the 'Methodicum Chemicum' series has been discussed in a review of Volumes 1 and 8<sup>\*</sup>. We review here the most recent addition to this series, Volume 7, which deals with the synthesis of inorganic and organic compounds of the main group elements. As such, it is the companion to Volume 8 which covers the compounds of the transition elements. In relatively short chapters (one is only two pages in length), 41 authors who for the most part are experienced research workers in the areas about which they write present critical and well-referenced discussions of the preparative routes to the diverse and varied compounds of all of the main group elements. There are 40 chapters in all which cover the following topics: the rare gases; hydrides of Groups I—III; the alkali metals; main group metal nitrides; carbides of Groups I—IV; beryllium; magnesium; calcium, strontium and barium; elemental boron and metal borides; covalent boron compounds; ionic boron compounds; carboranes; aluminum; gallium, indium and thallium; carbon—halogen compounds (4 chapters); silicon hydrides; silicon compounds; germanium; tin; lead; non-metal derivatives of nitrogen; inorganic acids of phosphorus; phosphorus—nitrogen compounds; organophosphorus compounds (4 chapters); arsenic, antimony and bismuth; inorganic sulfur compounds, carbon—sulfur compounds (4 chapters); acyclic and cyclic sulfur—nitrogen compounds; selenium and tellurium; interhalogen compounds. The overall coverage appears to reflect the interests and research activities of the editors: it is very much biased in favor of the organic chemistry of the elements covered. Although the focus of this volume is on the preparation of main group element compounds, not on their detailed properties and reactivity, a few of the chapters go beyond the merely preparative aspects. Thus Schlosser in his chapter on phosphorus ylides covers almost every aspect of this compound class in addition to their preparation. In any case, the coverage can at best be only rather sketchy. The expert in a particular area will not find the chapter in this volume which deals with his field very useful to him. However, this book will be of value to him since in it he will find selected leading references to preparations of compounds outside his field of expertise when he requires such assistance. This is the objective of the 'Methodicum Chemicum': to orient the outsider within a particular area by means of a brief discussion backed up by useful references.

The literature surveyed, the preface tells us, is complete through the end of 1971 but some references as late as 1973 are included. Here we encounter again a basic problem with the 'Methodicum Chemicum': many of the Chapters were originally written in English and then had to be translated into German, with resultant delays. The English version of this book, which will be published

\* *J. Organometal. Chem.*, 80 (1974) C17.

C22

at a later date, will be even more out of date. Nevertheless, as a source of basic references for compound syntheses this book is very useful and its value is enhanced by an excellent subject index.

*Department of Chemistry,  
Massachusetts Institute of Technology,  
Cambridge, Massachusetts 02139 (U.S.A.)*

DIETMAR SEYFERTH