

*Catalysis, Science and Technology, Volume 3*, Ed. J.R. Anderson and M. Boudart, Springer Verlag, Berlin, Heidelberg and New York, 1982, pp. 287, DM 128.

Like Volume 1 of this series, Volume 3 is of interest to organometallic chemists only in part. Volume 2, dealing mainly with catalysts themselves, contained little direct organometallic content. This volume consists of five reviews, the first (Donath) entitled *The History of Catalysis in Coal Liquefaction*. The second (Boreskov), concerning the catalytic activation of dioxygen, has a section on the oxidation of hydrocarbons, but it is written from a physical chemical viewpoint. The next review (Vannice) on the catalytic activation of CO on metal surfaces provides useful background information but little organometallic chemistry. The same is true for the final two chapters on chemisorption on non-metallic surfaces (Morrison) and chemisorption of dihydrogen (Knor).

In summary, mainly heterogeneous catalysts, little on catalysis per se, and useful for background rather than for direct reference. As with most Springer chemistry books, it is beautifully produced.

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*Organometallic Chemistry Reviews; Annual Surveys: Silicon — Germanium — Tin — Lead*; edited by D. Seyferth and R.B. King (*Journal of Organometallic Chemistry Library 13*). Elsevier Scientific Publishing Company, Amsterdam, 1982, 706 pages. Dfl. 350.00; US\$ 149.00.

With one exception, the literature covered in this volume is for the year 1980. The germanium section, however, covers 1979. The authors and format are for the most part as in the corresponding preceding volume in the series (Volume 11). The chapter headings and authors are as follows, (with, in brackets, the number of references shown first, and then the number of pages). "Silicon-functional compounds: Synthesis and reactivity; Annual Survey for the year 1980", by J.Y. Corey (512, 125); "Silicon — Application to organic synthesis; Annual Survey covering the year 1980" by G.M. Rubottom (512, 142); "Organosilicon reaction mechanisms; Annual Survey covering the year 1980" by F.K. Cartledge (284, 54); "Silicon: Bonding and structure; Annual Survey covering the year 1980" by C.H. Yoder (298, 48); "Silicon: The silicon-carbon bond; Annual Survey for the year 1980" by G.L. Larson (290, 99) (this is a new title and author); "Germanium; Annual Survey covering the year 1979" by D. Quane (239, 51) (the 1978 literature was covered by this author in Vol. 10); "Tin; Annual Survey covering the year 1980" by P.G. Harrison (281, 103); "Lead; Annual Survey covering the year 1980" by J. Wolters and D. de Vos (194, 37).

There is, additionally, an author index of 35 pages, which cites the position of articles in bibliographical lists at the end of each chapter; however, as the references are given in order of their occurrence in the text, the paper are readily identified with respect to their content.

The expertise of these authors is well established and the work will undoubtedly be of considerable value to researchers in the field. There are very few errors and only rarely is there significant duplication between various chapters. As usual, the book is prepared by a direct photo-reproduction process, but there is not a uniformity in the text throughout. Nevertheless, the production is pleasing, and the book can be highly recommended.

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*Organosilicon Compounds, Vols. 7, 8/(1), 8(2), and 8/(3), by V. Chvalovský and J. Rathouský, Institute of Chemical Process Fundamentals of the Czechoslovak Academy of Sciences, 1980.*

Organosilicon chemists around the world, and many other chemists who occasionally use organosilicon compounds, owe a great debt to Drs. Chvalovský and Rathouský and their colleagues for producing this very valuable series of volumes, in which all known organosilicon compounds are listed with appropriate literature citations, and the main methods of preparation and reactions are indicated. The availability of this compilation results in a huge saving in time in literature searching, and makes a major contribution to the development of organosilicon chemistry.

These latest issues, which have recently become available, summarize information published (or communicated to the authors) in the period from the beginning of 1976 to the end of 1977. It is noteworthy that while the first two volumes, covering material appearing up to October 1961, listed 12,000 compounds, Volumes 3 and 4, covering the next eight years included 22,000 more compounds, and Volumes 5 and 6, covering the next six years, another 32,000, while these new volumes include 17,000 new compounds even though they are concerned with only a two-year period.

Unfortunately these new volumes cannot be purchased in the ordinary way, and have to be obtained by negotiation of an exchange of books with the Librarian of the Institute of Chemical process Fundamentals, Czechoslovak Academy of Sciences, 165 02 Prague P — Suchdol, Czechoslovakia. It is to be hoped that this will not greatly restrict their distribution, since they deserve to be very widely available. A determined effort to obtain them should be made by any institution in which organosilicon chemistry is explored or used.

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