

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).