

Book Reviews

Organosilicon Chemistry From Molecules to Materials. By N. Auner and J. Weis. VCH: Weinheim; 1994, 349 pp., hardback DM 128, £ 52. ISBN 3-527-29061-3.

In the early 1940s, Eugene Rochow and Richard Müller independently developed the 'Direct Synthesis' of chlorosilanes. The discovery that reaction between chloromethane and a silicon/copper powder at 300 °C gave mainly dichlorodimethylsilane and some chlorotrimethylsilane gave birth to the now giant silicone industry. Some fifty years later, a symposium on organosilicon chemistry was held in Munich; both early pioneers participated, and both were awarded the Wacker Silicon Award for 1992. This book, edited by Norbert Auner and Johann Weis, respectively an academic and an industrialist, contains some 64 papers, covering the lecture and poster contributions presented at that symposium. The papers, all of which are in English and complete with references, are grouped thematically into

five sections. These five sections concern the chemistry of tetravalent organosilicon compounds, subvalent and unsaturated organosilicon compounds, hypervalent organosilicon compounds, organosilicon metal compounds with emphasis on transition metal coordination chemistry and catalytic activity, and finally the formation and application of silicon and silicone polymers and ceramics. Each section is conveniently prefaced by a short introduction, also with references, written by the editors. An author address list and author and subject indices are provided. Many of the contributors are from Germany; however, Austria, France, the Netherlands, the UK, the USA and Japan are all represented. Although I believe the contributions to have been submitted in camera-ready form, there is a pleasing consistency of presentation and commendable virtual freedom from errors. I would question the appeal of this book to those synthetic organic chemists whose main interest in organosilicon chemistry is in the control of reactivity and/or protection provided by silyl substitution in producing ultimately silicon-free products. However, I do recommend this book highly to those scientists in academia and industry who are active in molecular organosilicon chemistry and/or silicon-based materials science; the various contributions give a good overview of many of the 'cutting-edge' areas of activity in those fields.

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