

## Book reviews

---

### **Römpf encyclopedia of natural products**

W. Steglich, B. Fugmann and S. Lang-Fugmann (eds)

Georg Thieme Verlag, Stuttgart, 2000

x + 748 pages. DM 498

ISBN 3-13-117711-X

---

Natural products have provided targets for synthetic chemists for many years. The diversity of their structures and the range of their biological activities have provided the stimulus for many studies. The development of organometallic chemistry has brought many more of these compounds within the ambit of the synthetic chemist. Since the majority of natural products are chiral, there is the opportunity to use these compounds both as chiral starting materials and as components of chiral reagents or catalysts. This *Römpf Encyclopedia of Natural Products* provides a valuable source of information for this work.

This English language edition of the encyclopedia is a translation and major revision, including an update of the German edition, which was published in 1997. The objective of the encyclopedia is to provide a source of information on the major natural products. Although the choice of entries is inevitably selective and restricted to secondary metabolites, nevertheless a very wide and useful range of natural products is included. The literature in this revision has been covered up to the end of 1999. Each entry contains sources, structural information, formulae, physical constants, details of biological activity and uses, together with leading references. There are also entries for a number of terms that are used in natural product chemistry and for collective names for groups of natural products. The entries are concise, informative and clear, providing a useful summary of the pertinent material. They are very well cross-referenced. Useful synthetic derivatives are additionally included. There is a formula index and an index of Latin names for species. The entries have been contributed by a panel of 39 authors who have covered the major groups of natural products, including antibiotics, terpenoids, steroids, fatty acids, alkaloids, flavonoids and sugars.

This book contains a wealth of information and is a very useful addition to the reference library. It provides, in one volume, a valuable source of information on the major natural products and it can be recommended to those departments whose research is likely to bring synthetic and organometallic chemists into contact with natural products.

JAMES R. HANSON  
*University of Sussex, UK*

[DOI: 10.1002/aoc.151]

### **Silicon-containing polymers**

R. G. Jones, W. Ando and J. Chojnowski (eds)

Kluwer Academic Publishers, Dordrecht, 2000

xx + 768 pages. £196

ISBN 0-412-83110-4

---

This book on silicon-containing polymers has the subtitle *The Science and Technology of their Synthesis and Applications*, which gives a fair indication of its scope, although there is not a great deal on the technology in the sense of processing details. It consists of 28 articles by well-qualified practitioners in the various fields, and is presented in the following four sections.

*Section 1, Polysiloxanes* (editor J. Chojnowski): synthesis of linear polysiloxanes (41 pages); organosiloxane block and graft copolymers (36 pages); side-group modified polysiloxanes (33 pages); silicone copolymer networks and interpenetrating polymer networks (22 pages); preparation and properties of silicone elastomers (16 pages); polysilsesquioxanes (27 pages); thermal properties of polysiloxanes (27 pages); surface properties and applications (19 pages); and polysiloxanes—direction of applications and perspectives (10 pages). (I found this last essay, which speculates on possible future developments, especially interesting, but I would have welcomed some elaboration of the statement that the vacant *d*-orbitals of silicon represent a key factor in the chemistry of polysiloxanes, or at least some supporting references.)

*Section 2, Polycarbosilanes and Polysilazanes* (editor R. G. Jones): polycarbosilanes (77 pages); and polysilazanes (26 pages).

*Section 3, Polysilanes and Related Polymers* (editor R. G. Jones): synthesis of polysilanes by the Wurtz reductive-coupling reaction (21 pages); synthesis of polysilanes by new procedures: part 1, ring-opening polymerisations and the polymerisation of masked disilanes (25 pages); part 2, catalytic dehydropolymerisation of hydrosilanes (18 pages); modification and functionalisation of polysilanes (19 pages); hydrosilylation and silylation in organopolymer synthesis (21 pages);  $\sigma$ - and  $\pi$ -conjugated organosilicon polymers (51 pages); electronic structure and spectroscopy of polysilanes (31 pages); electronic and optical properties in device applications of polysilanes (22 pages); and