

### Book review

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*Silicon-Based Polymer Science. A Comprehensive Resource.* J.M. Zeigler and F.W.G. Fearon (Eds.), American Chemical Society, Washington, DC, 1989, xxii + 801 pages. US\$ 129.95. ISBN 0-8412-1546-4

This volume (number 224 in the Advances in Chemistry Series) arose from an International Topical Workshop on Advances in Silicon-Based Polymer Science sponsored by the Division of Polymer Chemistry of the American Chemical Society, and held in Oahu, Hawaii in November 1987.

After a brief preface by the editors (in which they point out that "The world is built from silicon-based polymers. Silicate materials in many shapes or forms account for more than 90% of the land mass") there is a most enjoyable and exceptionally well-written Introduction by E.G. Rochow. Then there is an effective simple (44 page) outline of the main features of organosilicon chemistry by T.J. Barton and P. Boudjouk, followed by a helpful introduction to features of organosilicon polymers by J.E. Mark. Subsequent material is presented in sections as follows: (i) one-dimensional to three-dimensional siloxanes (14 articles); (ii) polysilanes and related polymers (14 articles); (iii) preceramic polymers (4 articles); (iv) other silicon-based polymers (8 articles, the last an interesting account by D.R. Weyenberg and T.H. Lane headed "Future directions for silicon-based polymers"). There is a good (and so necessarily hand-made) subject index compiled by A.M. Rouhi, a valuable feature of a book such as this.

This is a timely volume, which should serve both as a valuable source of information and a stimulus to further research. It is well produced (though to my eye the pages have the rather old-fashioned appearance common in books published by the American Chemical Society) and should be readily available in the libraries of all institutions concerned with development of new materials.

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