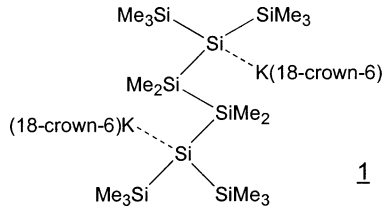
ORGANOMETALLICS

Volume 25, Number 9, April 24, 2006

Editor's Page

While alkali-metal derivatives of silyl anions of the type R_3SiM have been known for a long time through the work of C. A. Kraus, H. Gilman, G. A. Razuvaev, and others, the alkali-metal derivatives of polysilanyl monoanions and polysilanylene dianions of the types $R_3Si(SiR_2)_nM$ and $M(SiR_2)_nM$ ($n \geq 2$), respectively, have been much less developed. A very active contributor to the recent development of this interesting area of organosilicon chemistry is Professor Christoph Marschner of the Technical University (TU) of Graz in Austria, the author of the review on polysilanyl anions and dianions in this issue of *Organometallics*. His very productive research program has provided many new linear and cyclic polysilanyl anions and polysilanylene dianions. An example of the latter type, **1** (**69** in the review), whose X-ray crystal structure was published in 2003 (*Organometallics* **2003**, *22*, 3724), is featured on the cover of this issue.



1

Dianionic derivatives such as **1** are particularly useful in the synthesis of cyclic polysilanes, the potassium derivatives of which in their turn are useful reagents for further syntheses. Dianionic derivatives thus have added an important and very interesting new dimension to polysilane chemistry.

That Professor Marschner has become the leader in the current development of the new polysilane chemistry is made noteworthy by the fact that he started out as a synthetic organic chemist, having worked on the synthesis of carbo analogues of carbohydrates for his Ph.D. research at the TU Graz. After his graduation in 1992, he spent a postdoctoral year at Stanford University with Professor Barry Trost, working on transition-metal-catalyzed organic processes. The switch to polysilane chemistry came after his return to the TU Graz as a research associate, still in organic chemistry, when Professor Edwin Hengge, Director of the Institute for Inorganic Chemistry and a well-known specialist in polysilane chemistry, talked him into what was to be a short-term project on transition-metal-catalyzed processes in organosilicon chemistry. As a result, Professor Marschner became acquainted with and interested in the polysilane chemistry being pursued in the Hengge group. Leaving organic chemistry, Professor Marschner joined the Inorganic Chemistry Institute and began independent research on polysilanyl and polysilanylene anion chemistry, which he had recognized as a potentially fertile area.

Ably assisted by Dr. Judith Baumgartner, who has determined the X-ray crystal structures of many of the new polysilanes and polysilane anion derivatives prepared by his students, Professor Marschner has very creatively developed (and is continuing to develop) the field of polysilane chemistry by means of his versatile anionic reagents, preparing linear, branched, cyclic, and bicyclic polysilanes as well as polysilanes containing heteroelements, both main-group and transition elements. The synthetic approach that has been so successful in his chemistry also has served well in the preparation of germyl, stannyl, and phosphide anions. It is obvious that the present excellent review is only a progress report of a very active and fertile area of organosilicon chemistry.

The cover molecule figure was kindly provided by Professor Arnold L. Rheingold.

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Editor
OM060106O

10.1021/om060106o CCC: $33.50
Publication on Web 03/14/2006