Acyclische und cyclische Silylazine und Azinylsilane

Acyclic and Cyclic Silyalzines and Azinylsilanes

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C-lithiated bis(*tert*-butyl-methyl)ketazine reacts with halosilanes to give the monosilylketazines, *t*-Bu(Me)C=N-N=C(*t*-Bu)-CH_2R, (**1** – **7**). (**1**: R = $SiMe_3$; **2**: R = $SiClMe_2$; **3**: R = SiClMePh; **4**: R = Cl_2SiPh; **5**: R = $SiCl_3$; **6**: R = $SiMe_2Ph$; **7**: R = F_2SiN(*t*-Bu)$SiMe_3$). The bis(ketazinyl)silanes [*t*-Bu(RCH_2) C = N-N = CCH_2-*t*-Bu]$_2$ $SiMe_2$ **8**, **9** are formed in the reaction of the same lithiated ketazine or **1** with Cl_2SiMe_2 in a molar ratio of 2 : 1, (**8**: R = H; **9**: R = $SiMe_3$). Di(silyl)ketazines (**10**, **11**) are obtained from lithiated **1** and $ClSiMe_2Ph$ in a molar ratio of 1:1 and from dilithiated ketazine with F_2Si(*i*-Pr)$_2$ in a molar ratio of 1 : 2 [*t*-Bu(RH_2C)C=N-N=C(CH_2R')*t*-Bu, **10**: R = $SiMe_3$, R' = $SiMe_2Ph$; **11**: R,R' = FSi(*i*-Pr)$_2$]. The tris(ketazinyl)fluorosilane **12** is isolated from the reaction of SiF_4 with the lithiated ketazine. 2-Alkenyl-1,2-diaza-3-sila-5-cyclopentenes, *t*-Bu(CH_2)C-[N-SiR,R'-CH_2-C(*t*-Bu)=N], (**14** – **17**) are obtained from the dilithiated ketazine and Hal_2SiRR'. (**14**: Hal = Cl, R = Me, R' = Ph; **15**: Hal = F, R = *t*-Bu, R' = Ph; **16**: Hal = F, R = *t*-Bu, R' = F; **17**: Hal = F, R = N(*t*-Bu)$SiMe_3$, R' = F). X-ray structure analyses are presented for **7**, **11**, and **17**.

Key words: Ketazines, Silylazines, Azinylsilanes, Diazasilacyclopentenes