

## **2,4,6-Tri-*tert*-butylphenylaminofluorsilane und Lithium-bis(2,4,6-tri-*tert*-butylphenyldifluorsilyl)amid – im Kristall ein Polymer**

2,4,6-Tri-*tert*-butylphenylaminofluorosilanes and Lithium-bis(2,4,6-tri-*tert*-butylphenyldifluorosilyl)amide – in the Crystal a Polymer

Regine Herbst-Irmer, Uwe Klingebiel\*, Mathias Noltemeyer

Institut für Anorganische Chemie der Universität Göttingen,  
Tammannstr. 4, D-37077 Göttingen, Germany

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2,4,6-Tri-*tert*-butylphenyl Group, Aminofluorosilane, Lithium-fluorosilylamide, 1,3-Siloxane, Tris(fluorosilyl)amine

2,4,6-Tri-*tert*-butylphenyltrifluorosilane (**1**) reacts with lithium amides to give the aminofluorosilanes (**2** - **7**);  $\text{RSiF}_2\text{NHR}'$  ( $\text{R} = 2,4,6\text{-Me}_3\text{CC}_6\text{H}_2$ ;  $\text{R}' = \text{H}$  (**2**),  $\text{CMe}_3$  (**3**),  $\text{SiMe}_2\text{CMe}_3$  (**4**)),  $(\text{R-SiF}_2)_2\text{NH}$  (**5**),  $\text{RSiF}(\text{NHR}')_2$ ,  $\text{R}' = \text{CMe}_3$  (**6**),  $\text{C}_6\text{H}_5$  (**7**). The reaction of **5** with BuLi in THF leads to the formation of the monomeric lithium derivative **8**,  $\text{R-SiF}_2\text{Li}^+(\text{THF})_3\text{-N}^-\text{-SiF}_2\text{R}$ . The polymeric lithium derivative **9**  $[\text{R-SiF}_2\text{-N}^-\text{-SiRF}_2\text{Li}^+(\text{THF})_2]_n$  is obtained by recrystallisation of **8** in THF. In **8** and **9** lithium is only coordinated to fluorine and THF. Hydrolysis of **8** or **9** lead to the 1,3-disiloxane **10**,  $(\text{RSiF}_2)_2\text{O}$ . **10** shows linearity at the oxygen and short Si-O bond lengths.

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