Synthese und Reaktionsverhalten von Stannyloligosilanen, I. Kettenförmige Stannyloligosilane mit $SiMe_2$-Einheiten

Synthesis and Reactivity of Stannyloligosilanes, I.
Stannyloligosilane Chains Containing $SiMe_2$ Moieties

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Stannyloligosilanes, Preparation, Crystal Structure

Stannyloligosilanes **1** and **2** with terminal organotin groups are available by reacting alkali metal tri- or diorganostannides with α,ω-dichloro- or difluorosilanes, or by treatment of organochlorostannanes with α,ω-difluorosilanes in the presence of magnesium. Attempts to functionalize the triorganotin derivatives **2** by halogenation reagents did not result in the halogen compounds **5**; instead cleavage of silicon-tin bonds is observed. In contrast, reactions of the hydridotin derivatives **1** with CHX_3 (X = Cl, Br) lead to the quantitative formation of the bis(chloro- or bromostannyl)oligosilanes **5**. All compounds were characterized by NMR, IR, MS and elemental analysis. In addition, the triorganotin compound **2i** and the hydridotin species **1b** have been characterized by X-ray crystallography.

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