N-Silylaminotin Trichlorides. Synthesis and Characterisation by Multinuclear Magnetic Resonance Spectroscopy

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Tin, Lead, Amides

N-Silyl-aminotin trichlorides, $R_1 R_2 N-SnCl_3$ [$R_1 = R_2 = SiMe_3$ (1a), $R_1 = SiMe_3$, $R_2 = tBu$ (1b), $R_1 = SiMe_3$, $R_2 = 9$-borabicyclo[3.3.1]nonyl (1c), $R_1 R_2 = Me_2SiCH_2CH_2SiMe_2$ (1d)] were prepared by the reaction of tin tetrachloride with the respective bis(amino)plumbylenes, $(R_1 R_2 N)_2 Pb 4$. The analogous reactions with bis(amino)stannylenes, $(R_1 R_2 N)_2 Sn 3$, afforded only mixtures of the aminotin trichlorides 1 and bis(amino)tin dichlorides, $(R_1 R_2 N)_2 SnCl_2 2$. The products were characterised by $^1H$, $^{11}B$, $^{13}C$, $^{15}N$, $^{29}Si$ and $^{119}Sn$ NMR spectroscopy, and the NMR data of 1 were compared with those of the corresponding N-silylamino(trimethyl)tin compounds 8.