

# Synthesis and Structures of Some Aluminum Pseudohalides

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*Dedicated to Professor Michael Veith on the occasion of his 60<sup>th</sup> birthday*

The reactions of bis(2,2,6,6-tetramethylpiperidino)aluminum bromide ( $\text{tmp}_2\text{AlBr}$ ) with  $\text{Me}_3\text{SiN}_3$  or  $\text{Me}_3\text{SiCN}$  lead to trimeric  $\text{tmp}_2\text{AlN}_3$  and  $\text{tmp}_2\text{AlCN}$ , respectively, while the reaction with  $\text{Me}_3\text{SiOCN}$  produces the bicyclic compound  $[\text{tmpCON}(\text{SiMe}_3)_2]_2$ , **3**. Similarly, di(*tert*-butyl)aluminum bromide reacts with  $\text{Me}_3\text{SiCN}$  to give tetrameric  $(\text{Me}_3\text{C})_2\text{AlCN}$ , **4**. The compounds  $(\text{Me}_3\text{C})_2\text{AlN}_3$  and  $(\text{Me}_3\text{C})_2\text{AlOCN}$ , obtained as oily products, have tetracoordinated Al atoms as shown by NMR spectroscopy, but the degree of oligomerization has not been determined.

*Key words:* Trimeric Bis(tetramethylpiperidino)aluminum Azide, Trimeric Bis(tetramethylpiperidino)aluminum Cyanide, Tetrameric (Di-*tert*-butyl)aluminum Cyanide, X-Ray Structures