

Pentacoordinated Nitrogen Atoms in the Structure of Hexalithium Bis[methylsilyl-tris(methylimide)] Hexakis(tetrahydrofuran)

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Lithiation of tris(methylamino)*methylsilane* using an excess of *n*-butyllithium affords the corresponding trifunctional lithium amide in high yield. The compound crystallizes from tetrahydrofuran as a dimer with six donor molecules: $\{[\text{MeSi}(\text{NMeLi})_3]_2(\text{thf})_6\}$. The cluster is a cage structure grouped around a crystallographic center of inversion. The silicon and lithium atoms are tetrahedrally tetracoordinated, but the nitrogen atoms are pentacoordinated and have a square pyramidal environment of one carbon, one silicon, and three lithium atoms. Parallels can be drawn to other species with polymetallated nitrogen functions. An analogous compound was prepared from tris(methylamino)*vinylsilane*.

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