Hydrazine Adducts of Tri(*tert*-butyl)aluminum, -gallium and -indium – a Systematic Approach

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Treatment of the monomeric trialkylelement compounds $Al(CMe_3)_3$, $Ga(CMe_3)_3$, and $In(CMe_3)_3$ with different hydrazines $H_2N–N(H)R$ (R = Me, CMe_3, C_6H_5) yielded the corresponding adducts $(Me_3C)_3E \leftarrow NH_2–N(H)R$, **1** to **9**, in almost quantitative yields. All products were characterized by crystal structure determinations and shown to have the NH_2 group of the hydrazine ligands attached to the central Group 13 atom. These adducts are excellent starting compounds for the generation of hydrazides by thermolysis with release of butane.

Key words: Aluminum, Gallium, Indium, Hydrazines, Adducts