

Synthesis and Reactivity of Novel Alkali Metal Stannides

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Reactivity and side products of reactions of diorganodihydridostannanes (R_2SnH_2 , $R = Me, ^nBu, ^tBu$) with various alkali metal compounds have been discussed. Alternatively, the synthesis and characterization of a family of novel potassium stannides are described as well. The compounds of type $(RR'_2Si)R''_2SnK$ ($R, R' = Me, Ph$; $R'' = , Me, ^tBu, Ph$) **4–9** were synthesized by reaction of potassium hydride with bis(silyl)stannides $((RR'_2Si)_2SnR''_2)$. All compounds were characterized by multinuclear NMR spectroscopy. In addition, the tri-*tert*-butyltin compound **3** ($LiSn^tBu_3$) and the unsymmetrical silyl substituted stannane **10** were characterized by X-ray crystallography.

Key words: Alkali Metal Stannides, Preparation, Reactivity, ^{119}Sn and ^{29}Si NMR Spectroscopy,
Structure Elucidation