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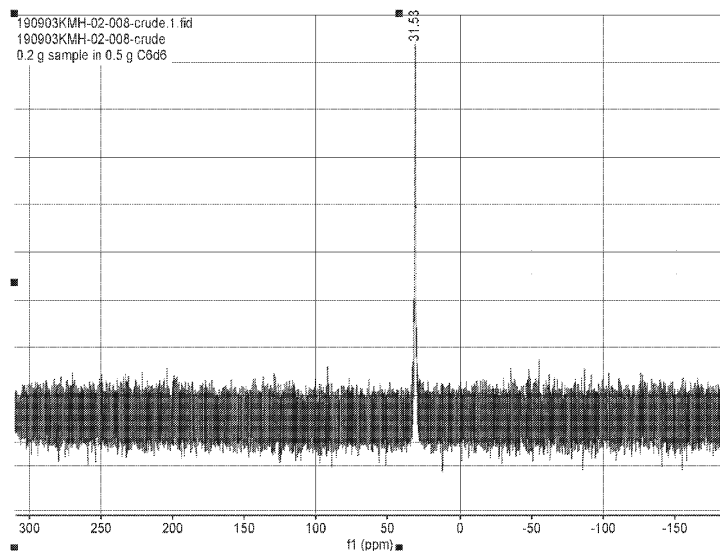


FIG. 1

(57) Abstract: Synthesis reactions are described to efficiently and specifically form compounds of the structure RSnL_3 , where R is an organic ligand to the tin, and L is hydrolysable ligand or a hydrolysis product thereof. The synthesis is effective for a broad range of R ligands. The synthesis is based on the use of alkali metal ions and optionally alkaline earth (pseudo-alkaline earth) metal ions. Compounds are formed of the structures represented by the formulas $\text{RSn}(\text{C}\equiv\text{CSiR}'_3)_3$, $\text{R}'\text{R}''\text{ACSnL}_3$, where A is a halogen atom (F, Cl, Br or I) or an aromatic ring with at least one halogen substituent, $\text{R}'\text{R}''(\text{R}'''\text{O})\text{CSnL}_3$ or $\text{R}'\text{R}''(\text{N}\equiv\text{C})\text{CSnZ}_3$.

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