









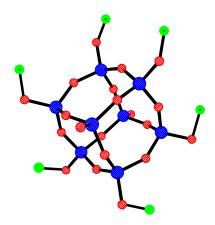
INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Reactions of the $Si_8O_{20}(SnMe_3)_8$ with chloroalkylalanes and aluminum chloride-alkoxides

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Cubic spherosilicate $Si_8O_{20}(SnMe_3)_8$ is a valuable precursor for silica-based materials. Terminal trimethyltin groups allow cross linking via tetralkyltin elimination reaction. The structure of resulting materials could be controlled by molar ratio or reaction temperature.



In our work we investigated reactions of this building unit with alanes and aluminum alkoxides. These reactions could lead to aluminosilicate materials. Products were characterized by solid and liquid phase NMR and IR spectroscopy, byproducts were characterized by GC/MS.