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Title:	Schiff bases of N-(2-aminoethyl)-3-aminopropyltrimethoxysilane and its silatranes: Synthesis and characterization
Authors:	Khullar, S. (/jspui/browse?type=author&value=Khullar%2C+S.) Mandal, S.K. (/jspui/browse?type=author&value=Mandal%2C+S.K.)
Keywords:	Schiff base modified silane Schiff base modified silatranes N-(2-aminoethyl)-3-aminopropyl-trimethoxysilane.
Issue Date:	2015
Publisher:	Springer India
Citation:	Journal of Chemical Sciences, 127(4) pp. 679-685.
Abstract:	This paper aims at the introduction of azomethine group by the condensation reaction of N-(2-aminoethyl)-3-aminopropyltrimethoxysilane with different compounds containing carbonyl group such as 2'-hydroxyacetophenone, salicylaldehyde, pyrrole-2-carboxaldehyde, acetylacetone and ethyl acetoacetate. Further, transesterification reaction of these Schiff base modified silanes with triethanolamine as a tripodal ligand leads to the synthesis of corresponding silatranes 1-5 bearing Schiff base functionalized long chain in the axial position. All the synthesized compounds are characterized by spectroscopic methods, elemental analysis and mass spectrometry. The authentication of Schiff base modified silatranes is scrutinized by single X-ray crystal structure of silatrane 1. The thermal stability of the five silatranes is studied by thermo-gravimetric analysis (TGA).
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