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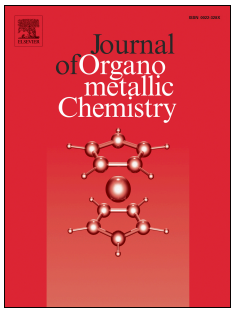

Synthesis, characterization and application of Nd-Salen schiff base complex Immobilized Mesoporous Silica in solvent free synthesis of pyranopyrazoles

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Synthesis, characterisation and Application of Nd-Salen Schiff base complex Immobilized Mesoporous Silica in solvent free synthesis of Pyranopyrazoles

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Abstract

The novel Nd-Salen Schiff base complex Immobilized Mesoporous Silica was synthesized by adsorption of $NdCl_3$ on mesoporous-SiO_2 and characterized soundly with various spectroscopic techniques such as FT-IR, Powder XRD, BET, TGA, SEM/EDX, TEM and ICP-AES analysis. The properties of mesoporous silica surface facilitate and accelerate the synthesis of desired products in high yields. All reactions progressed with high efficacy under solvent-free conditions and gave excellent yields avoiding slow workup and further purification of products.

Keywords: Pyranopyrazoles. Mesoporous silica. Green chemistry. Solvent free.