

عنوان مقاله:

Solid state synthesis of NiO nanoparticles from [(1,2-bis(2-formyl-3-methoxyphenyl)propane)nickel(II)] chloride

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خلاصه مقاله:

In this paper, nickel oxide (NiO) nanoparticles have been prepared by solid state thermal decomposition of an acyclic nickel(II) complex (1,2-bis(2-formyl-3-methoxyphenyl)propane)nickel(II) chloride, $[\text{NiL}]\text{Cl}_2$, in an electrical furnace at optimal temperature, 450 °C for 3.5 h. The nickel(II) complex is obtained via solid state synthesis using nickel(II) chloride and tetradentate O4 acyclic ligand 1,2-bis(2-formyl-3-methoxyphenyl)propane. The structure and morphology of NiO nanoparticles are characterized by Fourier transform infrared spectroscopy (FT-IR), powder X-ray diffraction (XRD), scanning electron microscopy (SEM) and transmission electron microscopy (TEM). XRD and TEM analysis .show that NiO nanoparticles have pure and cubic phase with the average size of 5-10 nm

کلمات کلیدی:

Nickel oxide, nanoparticles, Solid state, nickel(II) complex

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