

Interaction of Trivalent Lanthanide (III) Cations with Bidentate Schiff Base (1E,2E) Diphenylethane-1,2- Hydrazone Oxime

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Abstract: The novel lanthanide (III) complexes $[Ln(BMOH)_3] (NO_3)$ ($Ln=Pr, Nd$ and La), where $(BMOH)^- = (1E,2E)-1,2-$ diphenylethane – 1,2 – diene hydrazone oxime, have been obtained by direct condensation reaction of the Schiff base HBMOH ligand and corresponding hydrated lanthanide (III) nitrates in ethanol. All prepared complexes were characterized by traditional physico-chemical and spectral techniques. In the molecular structure of synthesized complexes, central inner transition metal ions are surrounded by all donor atoms of the HBMOH ligand (two nitrogen donor atoms) and nitrogen atom belonging to monodentate chelating nitrito ligand.

Keywords: Lanthanide (III) Complexes, Spectral Techniques, Transition Metal

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