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Title:	Syntheses, spectral and structural characterization of Ni(II) complexes of 4-amino-5-phenyl/3-pyridyl/thiophen-2H-1,2,4-triazole-3-thione
Authors:	Singh, Sanjay (/jspui/browse?type=author&value=Singh%2C+Sanjay)
Keywords:	Triazole complexes Mixed ligand complexes Ni(II) complexes TGA Supramolecular framework
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Citation:	Journal of Molecular Structure, 1056-1057,(1), pp.326-332.
Abstract:	New mixed ligand complexes [Ni(aptt)2(en)2] (1), [Ni(apytt)2(en)2]·CHCl3 (2) and [Ni(athtt)2(en)2] (3) with 4-amino-5-phenyl-2H-1,2,4- triazole-3-thione (Haptt), 4-amino-5-(pyridin-3-yl)-4,5-dihydro-3H-1,2,4- triazole-3-thione (Hapytt) and 4-amino-5-thiophen-2H-1,2,4-triazole-3-thione (Hathtt) have been prepared containing en as the secondary ligand. The metal complexes have been characterized with the aid of elemental analyses, IR, magnetic susceptibility and single crystal X-ray data. All the complexes are bonded through two nitrogen atoms of two triazole ligands and four nitrogens of two ethylenediamine and the resulting complexes have distorted octahedral geometry. The triazole ligands behave as uninegative monodentate, bonding through triazole nitrogen due to the hard character of the nickel(II). The complexes contain extended hydrogen bonding providing supramolecular framework. The course of the thermal degradation of complex 2 has been investigated by TG-DTA which suggest the loss of CHCl3 molecule around 200 C and finally a residue of NiS is left behind.
Description:	Authors sequences are not necessary in order Only IISERM authors are available in the record.
URI:	https://www.sciencedirect.com/science/article/pii/S0022286013009162?via%3Dihub (https://www.sciencedirect.com/science/article/pii/S0022286013009162?via%3Dihub) http://hdl.handle.net/123456789/3069 (http://hdl.handle.net/123456789/3069)
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