



The X-ray crystallographic structures, spectral and magnetic properties of nickel(II), copper(II) and cobalt(II) complexes with tetra(3-*iso*-propylpyrazol-1-yl)borate.

Autorzy

Joanna Kisała

Zbigniew Ciunik

Krzysztof Drabent

Tomasz Ruman

Stanisław Wołowicz

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Artykuł

Streszczenie

Tetra(3-*iso*-propylpyrazol-1-yl)borate ligand (L) forms mono-ligand LMX and bis-ligand L₂M complexes (where M=Ni(II), and Cu(II), and X=Cl⁻ or NO₃⁻) depending on the stoichiometry of the synthesis, while a polynuclear (NCS)₂Co(L)Co(L)Co(NCS)₂ complex is obtained when excess of cobalt(II) thiocyanate is used. The L coordinates to metal ions in a κ³ fashion in LNiCl, LNi(NO₃)(5-*i*-PrpzH) and LCuCl(5-*i*-PrpzH), whereas a κ² binding mode was found in L₂Ni and in unique (NCS)₂Co(L)Co(L)Co(NCS)₂, in which L bridges two metal ions. The X-ray crystallographic structures, spectral and magnetic properties of nickel(II), copper(II) and cobalt(II) complexes with tetra(3-*iso*-propylpyrazol-1-yl)borate. Tetra(3-*iso*-propylpyrazol-1-yl)borate ligand (L) forms mono-ligand LMX, bis-ligand L₂M (where M=Ni(II) and Cu(II), and X=Cl⁻ or NO₃⁻) and trinuclear (NCS)₂Co(L)Co(L)Co(NCS)₂ complexes depending on the stoichiometry of the synthesis. The L coordinates to metal ions in a κ³ fashion in LNiCl, LNi(NO₃)(5-*i*-PrpzH) and LCuCl(5-*i*-PrpzH), whereas a κ² binding mode was found in L₂Ni and in unique (NCS)₂Co(L)Co(NCS)₂, in which L bridges two metal ions.

Słowa kluczowe

Cobalt, Nickel, Copper, Tetra(3-*iso*-propylpyrazolyl)borate, Structures, Magnetism

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