The Synthesis, Crystal Structure and Spectroscopic Properties of a Dinuclear μ -Pyrazolato-N,N'-Bridged Dinickel(II) Complex of 1,3-Bis(salicylideneamino)propan-2-ol

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The title compound [Ni₂(L)(3,5 prz)], prz = pyrazolate with the formally pentadentate ligand L = 1,3-bis(salicylideneamino)propan-2-olate, was synthesized and identified using elemental analysis and IR spectroscopy. It crystallizes in the monoclinic space group $P2_1/c$ with cell parameters a = 29.873(4), b = 11.131(2), c = 13.166(3) Å, $\beta = 107.770(10)^{\circ}$, V = 4169.0(13) Å³, Z = 4, $D_{cal} = 1.618$ Mg/m³. The nickel ions are bridged by the alkoxo group of the ligand and the N atoms of the μ -pyrazolate group. Each nickel(II) ion is coordinated by two N atoms and two O atoms, forming a square with *trans*-N₂O₂ geometry. The Ni "Ni distance and the Ni-O-Ni angle are 3.371(1) Å and $126.4(1)^{\circ}$, respectively.

Key words: Crystal Structure, Dinuclear Complex, Ni(II) Ion, Schiff Base