The bisoxazoles 1a – 1c that feature structures with two oxazole moieties connected to a 2,6-pyridylenecentral linker and contain different aryl substituents in 4- and 5-positions of the oxazole rings have been synthesized. Single-crystal X-ray structure determinations of the free ligand 1a, containing the NiCl$_2$ complex of 1c as the CH$_3$COOH solvate as well as the 1,4-dioxane-solvated diester intermediate 2a are reported, which show specific molecular conformations and packings in the crystals. The conformation of 1a is *syn* with reference to the oxazole nitrogen atoms and *anti* with reference to the oxazole and pyridine nitrogen atoms. In the Ni$^{2+}$ complex, the metal ion is in an octahedral coordination environment with the nitrogens of 1c and an oxygen of an acetic acid molecule in the basal plane, while two chloride ions occupy the axial positions of three additional acetic acid molecules one is hydrogen-bonded to a chloride and two form a carboxylic dimer, thus giving rise to a 1 : 1 : 4 (1c : NiCl$_2$ : HOAc) stoichiometric ratio. The crystalline 1 : 1 inclusion compound of 2a with 1,4-dioxane suggests a typical clathrate owing to the bulkyness of the host molecule.

**Key words:** Pyridine Derivatives, Oxazole Derivatives, Nickel, Coordination Compound, X-Ray Diffraction Analysis