DANAC, Ramona, CORJA, Ion, PALAMARCIUC, Oleg et al. New M(II) (M=Mn, Co, Ni, Cu, Zn, Pd) coordinative compounds with 2-formylpyridine S-methyl-isothiosemicarbazide. In: Journal of Molecular Structure. 2018, Vol. 1207, 127747. ISSN 0022-2860.

The synthesis and structure of the new organic proligand 2-formylpyridine S-methyl-isothiosemicarbazone in a bi-protonated form ($HL \cdot 2HCl$) and its coordination compounds with Mn(II) - $[Mn(HL)\cdot Cl_2]$, Co(III) - $[CoL_2]\cdot ClO_4$, Ni(II) - $[Ni(HL)_2]\cdot 2ClO_4$, Cu(II) - $[Cu(HL)Cl_2]\cdot (H_2O)$, Zn(II) - $[Zn(HL)_2]\cdot 2(ClO_4)\cdot (H_2O)$ and Pd(II) - $[Pd(HL)\cdot Cl]\cdot Cl$ are reported. According to the X-ray investigation, the ligand has the molecular form of HL in the case of Mn(II), Cu(II), Zn(II) and Pd(II) compounds, and the deprotonated form L^- in case of the Co(III) complex. The ligand coordinates to the metal ions via a N,N,N set of donors atoms in case of Zn(II), Cu(II) and Co(III). For Mn(II), the ligand coordinates via N,N donor atoms, whereas in the case of Pd(II) metal ions, the coordination sphere is N,N,S. This latter coordination mode (via $S(CH_3)$) has been previously reported in case of salicylaldehyde S-alkyl-isothiosemicarbazones.