Synthesis, crystal structure, magnetic, thermal and fluorescent properties of $[Co(H_2O)_4(nia)_2](suc)\cdot(H_2suc)$.

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Streszczenie

A new cobalt(II) complex, [Co(H2O)4(nia)2](suc)·(H2suc) [nicotinamide = nia, succinate = suc2−],has been synthesized and characterized by elemental analysis, IR, TG-DTA and single-crystal X-raydiffraction. It contains [Co(H2O)4(nia)2]2+complex cations, uncoordinated suc2−anios and H2sucspecies. In the complex cation the cobalt(II) ion is coordinated by four aqua and two nia ligands in adistorted octahedral geometry. The suc2−dianion acts as a counter-ion, while H2suc is present as amolecule of solvation. A three-dimensional network is formed by O–H···OandN–H···O hydrogenbonds. The title complex exhibits luminescence in the solid state at room temperature. The magnetismof the complex was studied over the temperature range 1.

Słowa kluczowe

Succinate Complexes, Nicotinamide, crystal structure, Thermal Analysis, magnetic interaction

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