Attempts of synthesis of $Hg(SCN)_4$-based coordination polymers in conjunction with $[Cu(L\text{-}L)_2]^{2+}$ building blocks.

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Streszczenie

Five novel heterobimetallic compounds [Cu(bpzm)2Hg(SCN)4]n (1), [Cu(bdmpzm)2(μ-SCN)Hg(SCN)3] (2), [Cu(pybzim)2(μ-SCN)Hg(SCN)3]·H2O (3), [Cu(bipy)2(μ-SCN)Hg(SCN)3] [Cu(bipy)2(μ-SCN)2Hg(SCN)2] (4) and [Cu(bipy)(NCS)]2[Hg(SCN)4] (5) have been synthesized and structurally characterized (bpzm-bis(pyrazol-1-yl)methane, bdmpzm-bis(3,5-dimethylpyrazol-1-yl)methane, pybzim-2-(2-pyridyl)benzimidazole, phen-1,10-phenantroline and bipy-2,2′-bipyridine). The compounds 2, 3, 4 and 5 are molecular complexes, whereas 1 is an alternating 1-D zigzag chain of [Cu(bpzm)2]2+ and Hg(SCN)4]2− moieties in which the metal atoms are bridged via thiocyanate ions. The polymer 1 has been studied by magnetic measurement.

Słowa kluczowe

Heterobimetallic coordination polymer, copper, mercury, Thiocyanate bridge, X-ray, magnetic measurements

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