**β-Diketonates and their Analogs: Stabilization of the Dimeric M₂{L}₄(D)₂ (M = Co, Ni) Core in the Complexes with Dimethyl-N-trichloroacetylamidophosphate {Cl₃C(O)NP(O)(OCH₃)₂}⁻**

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The coordination compounds of general formula [M{X}₂(2-propanol)]₂ (M = Co(II) (1), Ni(II) (2); {X} = Cl₃CC(O)NP(O)(OCH₃)₂) have been prepared and characterized by means of IR, UV-VIS spectroscopy and X-ray analysis. The compounds are isomorphous according to X-ray powder diffraction studies. Crystal data for 1: triclinic, P₁̅₁ with a = 9.510(2), b = 12.053(2), c = 23.594(5) Å, α = 84.74(3), β = 86.47(3), γ = 75.45(3)°, Z = 2, V = 2604.7(9) Å³, R₁ = 0.067, wR₂ = 0.143 for 6299 unique reflection used). The complex adopts a dimeric centrosymmetric molecular array with Co-O-Co bridges formed via the oxygen atoms of phosphoryl groups. This structure is stabilized by intradimeric hydrogen bonds of the type P=O---H with the coordinated 2-propanol. The metal atoms are coordinated in slightly distorted octahedra (Co-O 2.050(5)-2.140(5) Å). Unlike the β-diketonate compounds of similar structure, the dimeric complexes are stable towards donor species and in 2-propanol solution.