Kristallstruktur des Oxo-Acetatkomplexes
[Co₇(μ₄-O)₂(O₂CCH₃)₁₀(OPEt₃)₂]

Crystal Structure of the Oxo-Acetate Complex
[Co₇(μ₄-O)₂(O₂CCH₃)₁₀(OPEt₃)₂]

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Cobalt, Oxo-Acetate Complex, Crystal Structure

Cobalt(II) acetate reacts with the silylated phosphinimine Me₃SiNPEt₃ at 230 °C to form a reaction mixture from which dark blue single crystals have been isolated by recrystallization from dichloromethane/acetonitrile. They were identified by a crystal structure determination to be [Co₇(μ₄-O)₂(O₂CCH₃)₁₀(OPEt₃)₂]·4CH₃CN (1). Lattice dimensions at 190 K: a = 1048.9(1), b = 1217.5(1), c = 1280.6(1) pm, α = 87.75(1)°, β = 77.72(1)°, γ = 73.90(1)°, space group P ̅1, Z = 1, R₁ = 0.0257. 1 has a centrosymmetric cluster-like structure in which the central cobalt atom is connected via two μ₄-oxygen atoms with the remaining six cobalt atoms to form a distorted Co(Co)₆ octahedral skeleton. In addition, all cobalt atoms are linked by six μ₂-O₂CCH₃⁻ groups and by four μ₃-OC(O)CH₃⁻ bridges.

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