

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 $\bar{1}$, *Z* = 1, *R*₁ = 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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