

Hydrido(acylphenolato)cobalt(III)-Verbindungen mit Trimethylphosphan-Liganden

Hydrido(acylphenolato)cobalt(III) Compounds Containing Trimethylphosphane Ligands

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Acylcobalt(III) Complexes, Reactions, Structure, Hard-Soft Chelating Ligands

Salicylaldehyde derivatives and related β -hydroxy aldehydes CHO-CR=CR'-OH react with $\text{CoMe}(\text{PMe}_3)_4$ via oxidative substitution to form low-spin d^6 complexes $\text{mer-CoH}(\text{CO-CR=CR'-O})(\text{PMe}_3)_3$. Reductive elimination of acyl and hydride functions from *cis* positions at the metal is less favourable than in carbonyl cobalt intermediates through a pronounced stabilization by neutral phosphane σ -donor and dianionic acylenolato chelate ligands. Reactions of the hydride complexes with iodomethane or with protic acids HX afford octahedral molecular complexes $\text{mer-CoX}(\text{CO-CR=CR'-O})(\text{PMe}_3)_3$ ($\text{X} = \text{I}, \text{OAc}$) and $\text{mer-CoX}(\text{CO-CR=CR'-O})(\text{PMe}_3)_2$ ($\text{X} = \text{OAc}, \text{O-CR'=CR-CHO}$) without opening of the acylenolato chelate ring.

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