

# Hexahydro-*closo*-hexaborate as a Ligand in Coordination Compounds: A Second Polymorph of $[\text{Au}_2(\mu\text{-bis-}\eta^3\text{-B}_6\text{H}_6)(\text{PPh}_3)_2]$

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$\mu\text{-bis-}(\eta^3\text{-Hexahydro-}closo\text{-hexaborato})\text{bis}(\text{triphenylphosphine})\text{digold}$ , Polymorphism,  
Crystal Structure

The crystal structure of a second room-temperature polymorph of the complex  $[\text{Au}_2(\mu\text{-bis-}\eta^3\text{-B}_6\text{H}_6)(\text{PPh}_3)_2]$  is presented and compared with the previously reported phase. The change of the solvent which is layered on a solution of  $[\text{Au}_2(\mu\text{-bis-}\eta^3\text{-B}_6\text{H}_6)(\text{PPh}_3)_2]$  in  $\text{CH}_2\text{Cl}_2$  from petroleum ether to *n*-pentane leads to a second form with fundamental differences in the crystal structure. Instead of the octahedrally shaped crystals, space group  $\text{Pa}\bar{3}$ , the crystals in the present determination are orthorhombic needles crystallizing in space group  $\text{Pccn}$  with a remarkable increased calculated density from 1.326 to 1.855  $\text{Mg/m}^3$ .

\* Reprint requests to Prof. Dr. W. Preetz.