

Silver and Gold Complexes with Benzimidazolin-2-ylidene Ligands

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Dedicated to Professor Hubert Schmidbaur on the occasion of his 75th birthday

The dicarbene silver complexes **1a**, **b** of the type [Ag(NHC)₂][AgBr₂] (NHC = *N,N'*-dialkylbenzimidazolin-2-ylidene) have been prepared from the parent benzimidazolium salts by reaction with silver oxide. The silver complexes have been used for the transfer of the carbene ligand to gold(I) giving the gold complexes [AuCl(NHC)] **2a**, **b** in good yields. Crystals of **2a**, **b** have been obtained from chloroform/pentane solutions, and X-ray diffraction structure analyses revealed gold(I) atoms coordinated in a linear fashion by an NHC carbon atom and a chloro ligand.

Key words: *N*-Heterocyclic Carbene, Silver, Gold