New Reactivities of Gold Complexes: 
It is All a Question of Ligand Design!

D. Bourissou 
Laboratoire Hétérochimie Fondamentale et Appliquée 
Université de Toulouse-CNRS, 118 route de Narbonne, 31062 Toulouse, France 
e-mail: dbouriss@chimie.ups-tlse.fr

With the aim to open new avenues in catalysis, we have challenged the presumed reluctance of gold to undergo several key elementary transformations. Thanks to rationale ligand design, we have shown that gold complexes can undergo oxidative addition, migratory insertion and β-H elimination under very mild conditions. The specific properties of gold and the precise role of the “ancillary” ligands will be discussed. Stoechiometric studies and catalytic applications will be presented.

References