

Chiral Imidazo[1,5-*a*]pyridine-Based Ligands for the Au-Catalyzed Enantioselective Intramolecular Hydrocarboxylation of Allenes

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As part of our program aimed at designing chiral ligands for use in selective catalysis,¹⁻³ we report herein the synthesis of gold(I) complexes supported by imidazo[1,5-*a*]pyridine-based ligands^{4,5} featuring chiral aniline moieties at N(2). The synthesis is short, efficient, and modular, allowing for precise control over the steric and electronic properties of the coordination sphere of the metal.

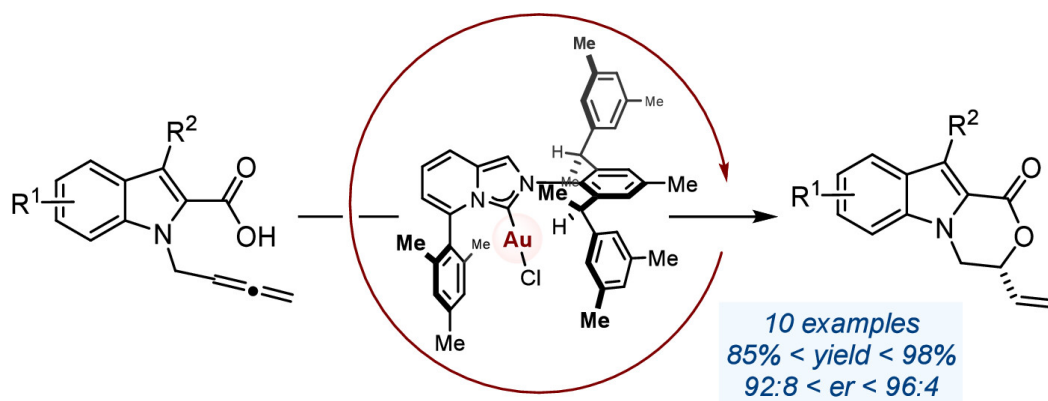


Figure 1. Au-Catalyzed Intramolecular Hydrocarboxylation of Allenes.

The design of these atypical chiral ligands was validated in the Au(I)-catalyzed enantioselective intramolecular hydrocarboxylation of allenes,⁶ which furnished tricyclic N(1)–C(2)-fused oxazinoindolones in high yield and unprecedented levels of enantiocontrol.⁷

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