

Abstract

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Title of thesis: Nucleophile-Assisted Gold(I)-Catalyzed Cyclizations of Enynes

This work is focused on gold(I)-catalyzed cyclizations of substituted enyne in the presence of a nucleophile. The screening of various gold catalysts, silver co-catalysts, solvents and nucleophiles was performed. We achieved the formation of substituted tetrahydropyridine with excellent diastereoselectivity by optimization of the reaction conditions.

To extend our methodology, the second part deals with the gold(I)-catalyzed cyclization of the enyne with chiral center. The cyclization was found to be enantioselective.

Keywords: gold catalysis, tetrahydropyridines, hemiaminals, hemiaminaethers