SYNFACTS

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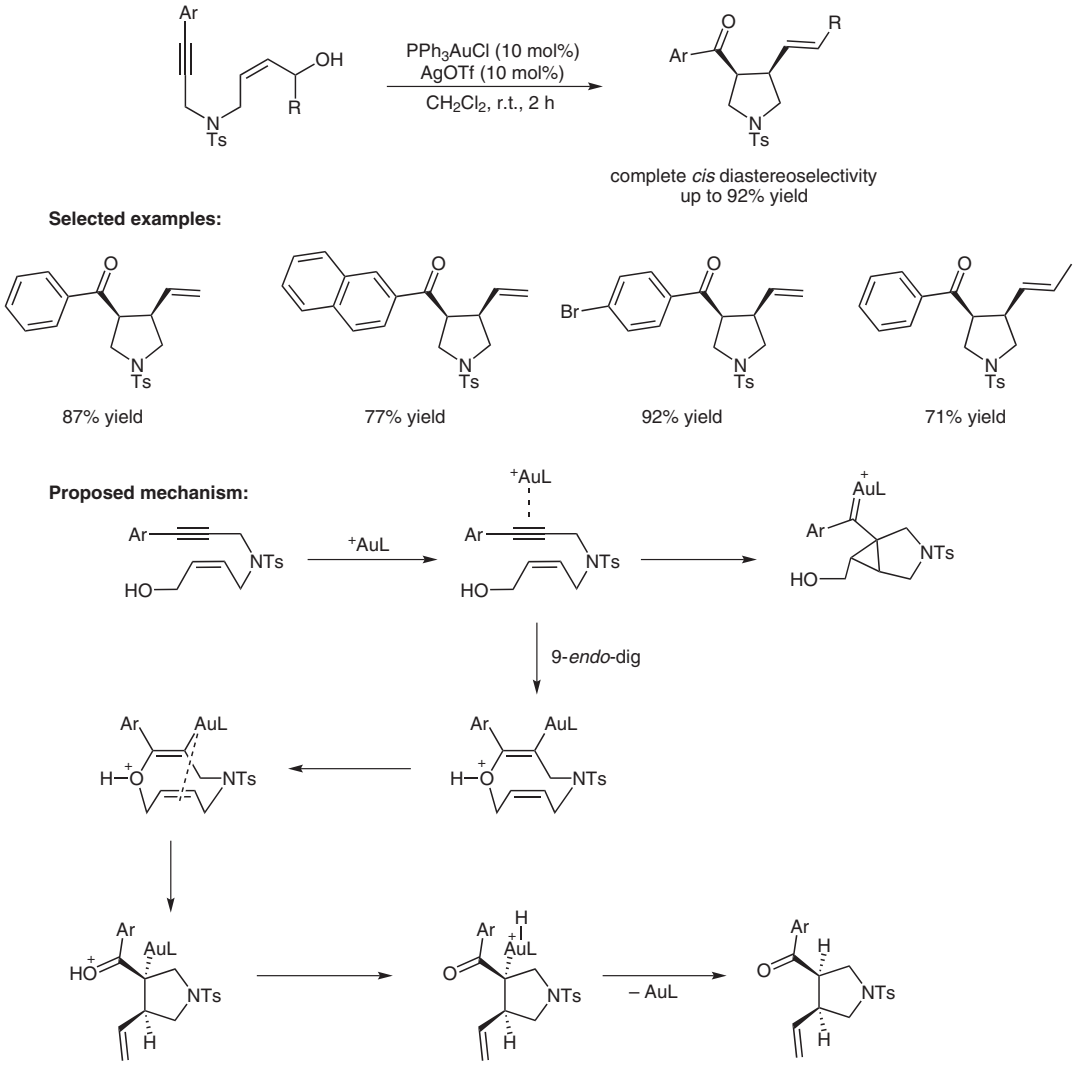
Synthesis of *cis*-Acyl-4-alkenylpyrrolidines via Gold(I)-Catalyzed Cycloisomerization Reaction of (Z)-8-Aryl-5-tosyl-5-azaoct-2-en-7-yn-1-ols
J. Org. Chem. **2010**, *75*, 6031-6034.

Gold(I)-Catalyzed Diastereoselective Pyrrolidine Synthesis



Significance: The authors report a completely diastereoselective gold(I)-catalyzed cyclization to form *cis*-3-acyl-4-alkyenylpyrrolidines. Pyrrolidine products were formed in very nice yields, and this methodology can be extended to cyclopentane derivatives as well.

Comment: The terminal alkynyl aryl group was found to be necessary for cycloisomerization. The authors propose a mechanism where the alkynyl carbon adjacent to the aryl group has significant cationic character, which will promote attack of the alcohol. Thus, electron-neutral and electron-rich aryl groups gave the highest pyrrolidine yields.

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