



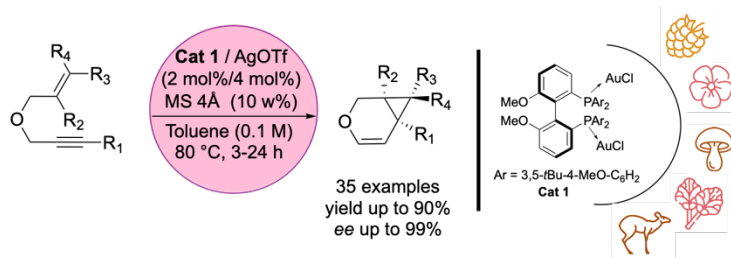
Gold(I)-Catalyzed Enantioselective Cycloisomerization of 1,6-Oxygenated Enynes: a Strategy for Accessing Hedonic Derivatives

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For several years, our group has focused on gold-catalyzed reactions¹²³ and more specifically on the gold-catalyzed cycloisomerization of 1,6-enynes in racemic conditions.⁴ A novel synthetic methodology concerning the gold-catalyzed enantioselective cycloisomerization has been developed starting from readily available 1,6-oxygenated enynes precursors. The optimization of the reaction conditions allowed, in the presence of the chiral cationic Au(I) catalyst (*S*)-DTBM-MeOBIPHEP-(AuCl)₂ associated with AgOTf as co-catalyst, an efficient access to functionalized bicyclic adducts. Although this reaction has been studied by various groups, none has succeeded in obtaining excellent yields and excellent enantiomeric excesses for light molecules.⁵⁶ This efficient synthesis led to new volatile 3-oxabicyclo-[4.1.0]-hept-4-enes in excellent enantiomeric excesses ranging from 87–99%. In addition to the olfactory applications⁷ of these compounds, whose odor depends on the major enantiomer, post-functionalizations have been carried out to further enhance their value.⁸



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