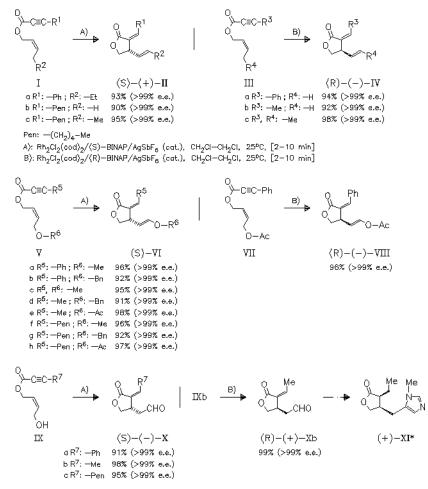
diastereoselective syntheses, enantioselective syntheses (incl. cis/trans-isomerism)

Highly Enantioselective Syntheses of Functionalized  $\alpha$ -Methylene- $\gamma$ -butyrolactones via Rh(I)-Catalyzed Intramolecular Alder Ene 44 - 037 Reaction: Application to Formal Synthesis of (+)-Pilocarpine. Extraordinarily high enantioselectivities are obtained in the title reaction of alkenyl acetylenecarboxylates using catalytic amounts of [RhCl(cod)]<sub>2</sub>, (R)- or (S)-BINAP, and AgSbF<sub>6</sub>. Aldehyde (Xb) is a key intermediate for Bchi's synthesis of (+)-pilocarpine (XI). - (LEI, AIWEN; HE, MINSHENG; ZHANG, XUMU; J. Am. Chem. Soc. 124 (2002) 28, 8198-8199; Dep. Chem., Pa. State Univ., University Park, PA 16802, USA; EN)



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