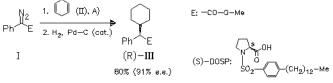
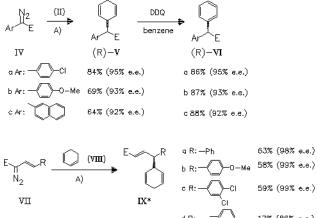
diphenylmethane derivatives

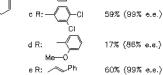
$$\frac{2\ 0710}{42\ -\ 103}$$

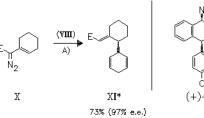
Catalytic Asymmetric Synthesis of Diarylacetates and 4,4-Diarylbutanoates. A Formal Asymmetric Synthesis of (+)-Sertraline. The $Rh_2((S)$ -DOSP)₄-catalyzed decomposition of aryldiazoacetates (I) and (IV) with cyclohexadiene (II) proceeds by insertion of the carbenoid into the allylic C-H bond to furnish (aryl)cyclohexadienylacetates [cf. (V)] with high asymmetric induction. The reaction of vinyldiazoacetates (VIIa)-(VIId) with cyclohexadiene (VIII) in the presence of the chiral rhodium catalyst unexpectedly affords 4-cyclohexadienylbutenoates (IXa)-(IXd) as formal C-H insertion-Cope rearrangement products in excellent stereoselectivity. This reaction can be successfully applied to the synthesis of 6-phenyl-4-cyclohexadienylhexadienoate (IXe) and the corresponding cyclohexylideneacetate (XI). Additionally, derivative (IXc) is shown to be a useful intermediate in the synthesis of the antidepressant (+)-sertraline (XII). — (DAVIES, HUW M. L.; STAFFORD, DOUGLAS G.; HANSEN, TORE; Org. Lett. 1 (1999) 2, 233-236; Dep. Chem. Eng., State Univ. N. Y., Buffalo, NY 14260, USA; EN)

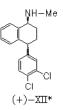


A): Rh₂((S)-DOSP)₄ (cat.), hexanes, 23°C









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