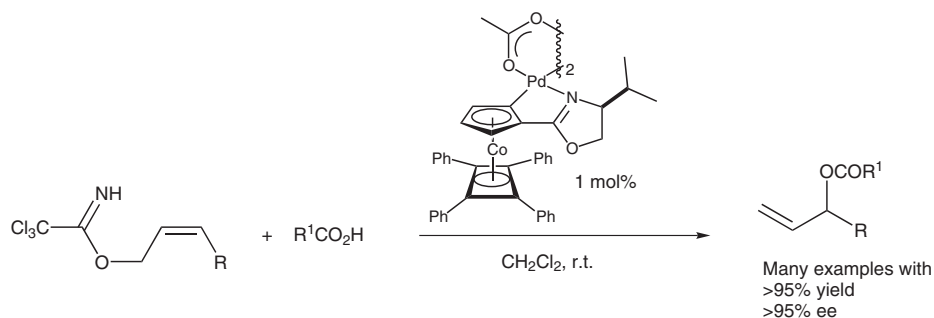


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Catalytic Asymmetric Synthesis of Chiral Allylic Esters

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Catalytic Asymmetric Synthesis of Chiral Allylic Esters



Significance: The conversion of *Z*-allylic alcohols to trichloroacetamide derivatives allows for the formation of highly enantioenriched allylic esters through this palladium-catalyzed pathway. This is the first catalytic asymmetric allylic esterification. The starting trichloroacetimidates can be prepared quite simply from allylic alcohols and trichloroacetonitrile.

Comment: Allylic esters and alcohols are both common and important functionalities in biologically active compounds. Chiral allylic alcohols and their derivatives (such as esters) are often prepared through kinetic resolution of the alcohol. This is a superior alternative that provides high yields and ee's utilizing full molar quantities of starting materials with only catalytic amounts of a chiral source, and furnishes the ester directly.

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Key Words

allylic esters
palladium
trichloroacetamide