

SYNFACTS Highlights in Current Synthetic Organic Chemistry

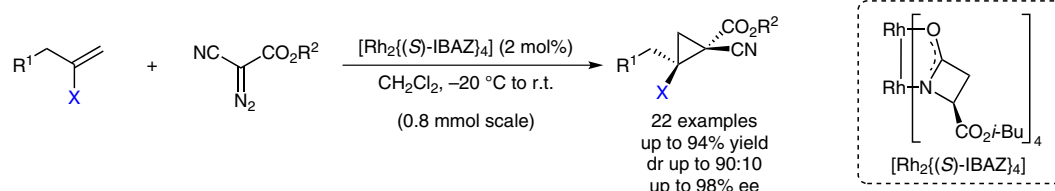
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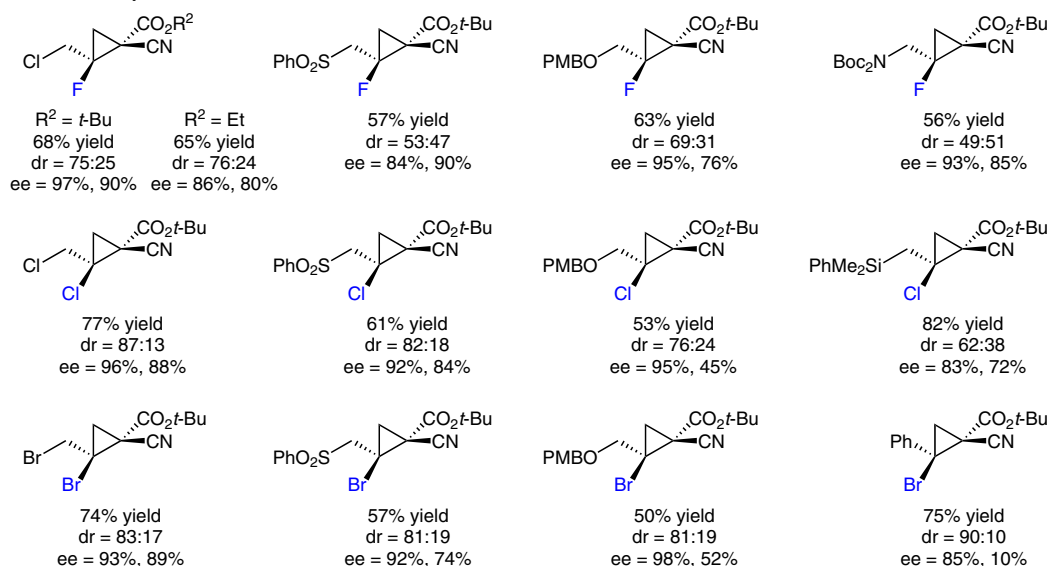
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Catalytic Enantioselective Synthesis of Halocyclopropanes



Selected examples:



Significance: Cyclopropanes are versatile building blocks and are also found in synthetic and natural bioactive products. In this area, the catalytic asymmetric synthesis of halocyclopropanes has been underexplored. In this report, the authors describe a relatively general synthesis of these molecules.

Comment: The diastereoselectivity of the reaction is low to moderate and is generally higher for chloro- and bromo-substituted cyclopropanes than for fluoro-substituted ones. Enantiomeric excesses are usually high for the major diastereomer. In addition, the reaction shows good functional group tolerance and generates products that can be derivatized at more than one position.