M.Sc. Semester-IV
Core Course-9 (CC-9)
Synthetic Organic Chemistry

II. Pericyclic Reactions
6. Ireland-Claisen Rearrangement

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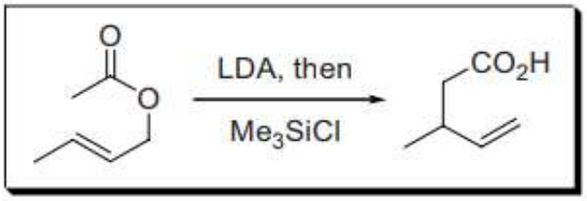
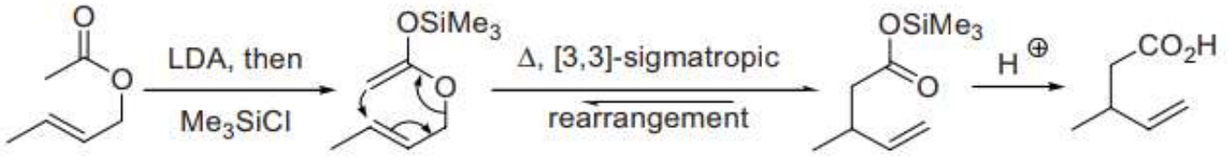
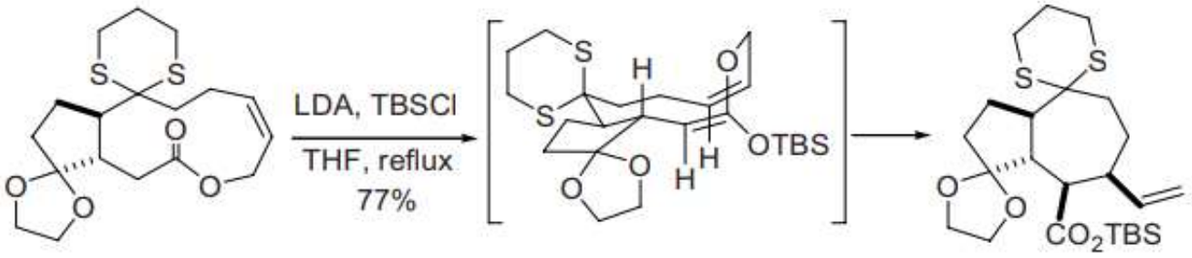
Ireland–Claisen (silyl ketene acetal) rearrangement

Rearrangement of allyl trimethylsilyl ketene acetal, prepared by reaction of allylic ester enolates with trimethylsilyl chloride, to yield γ,δ-unsaturated carboxylic acids. The Ireland–Claisen rearrangement seems to be advantageous to the other variants of the Claisen rearrangement in terms of *E/Z* geometry control and mild conditions.

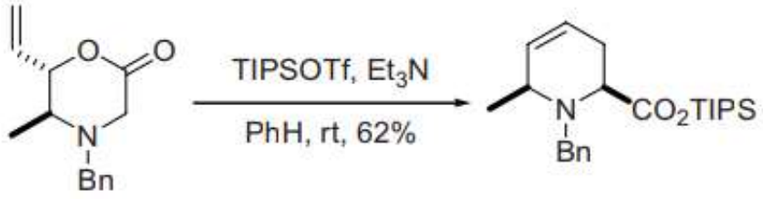




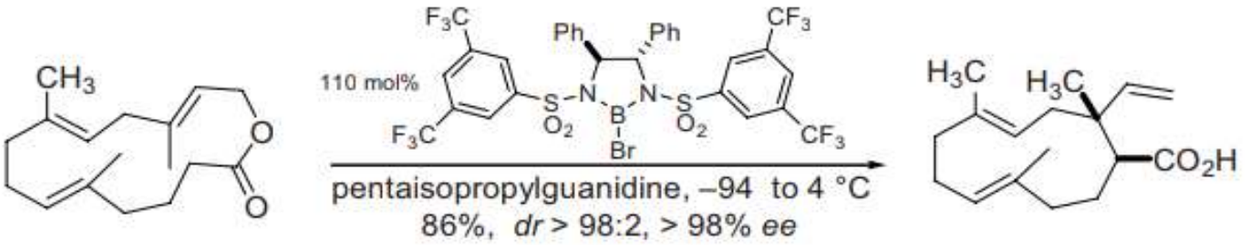
Example 1[2]



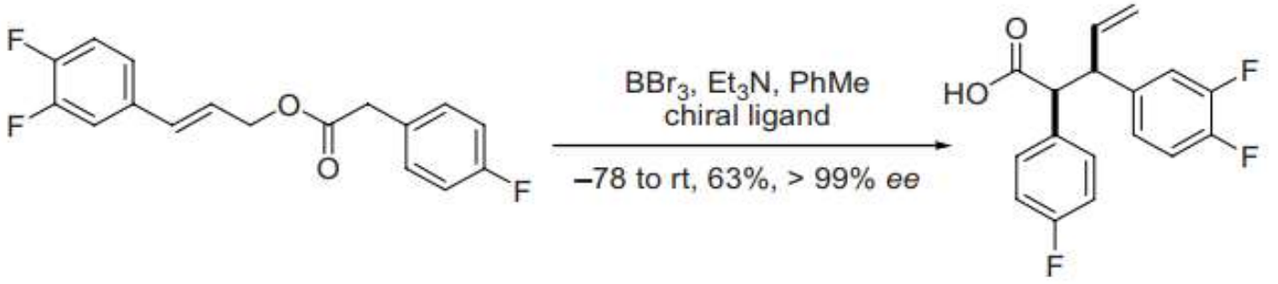
Example 2[3]



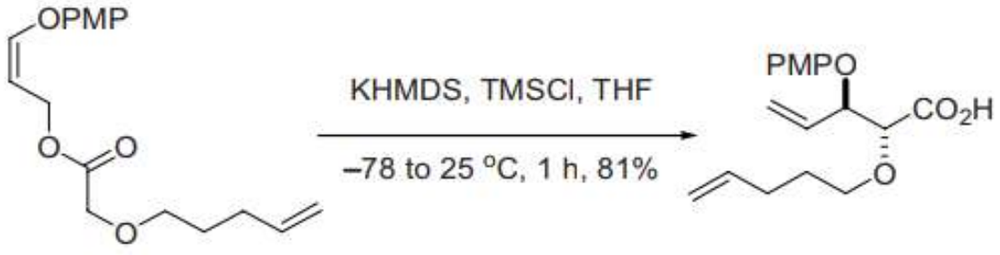
Example 3, Enantioselective ester enolate-Claisen Rearrangement[6]



Example 4, A modified Ireland–Claisen rearrangement[8]



Example 5[9]



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