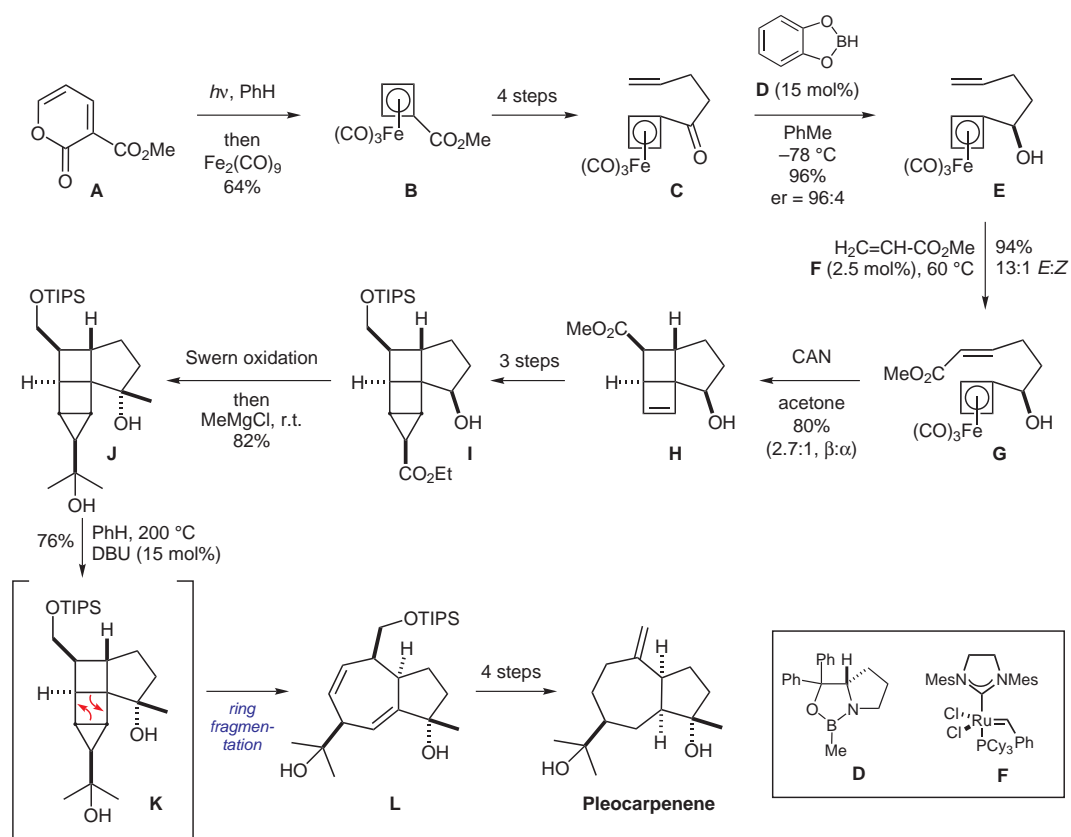


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 Intramolecular Cyclobutadiene Cycloaddition/Cyclopropanation/Thermal Rearrangement: An Effective Strategy for
 the Asymmetric Syntheses of Pleocarpenene and Pleocarpenone
J. Am. Chem. Soc. **2007**, *129*, 486-487.

Synthesis of Pleocarpenene



Significance: Pleocarpenene is a guaianes natural product. Snapper and co-workers used (1) an intramolecular cyclobutadiene cycloaddition reaction and (2) a thermal ring fragmentation reaction *en route* to the 5–7-fused ring system.

Comment: Asymmetric reduction of iron-cyclobutadiene complex **C** using the Corey oxazaborolidine gave enantioenriched **E** that underwent cross-metathesis giving **G**. Subsequent oxidation with cerium ammonium nitrate (CAN) gave **H** as the major diastereoisomer. Later, thermolysis of **J** in the presence of DBU afforded **L** as the product of ring fragmentation.

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