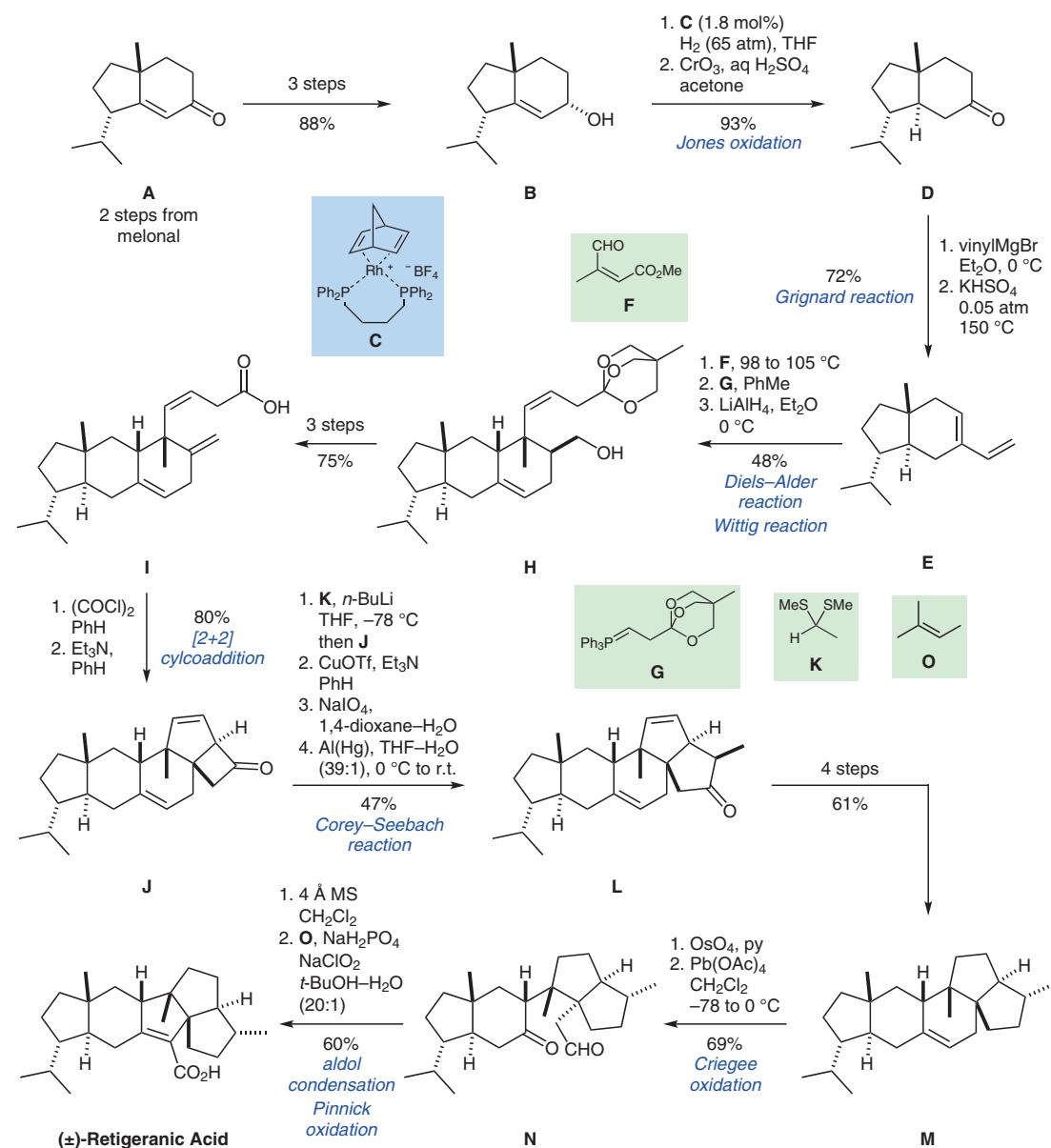


First Synthesis of (±)-Retigeranic Acid



Significance: In 1985, Corey and co-workers reported the first racemic total synthesis of (±)-retigeranic acid. The pentacyclic sesterterpene has eight stereocenters. The key to their synthetic strategy was the construction of the central five-membered ring through a ring contraction sequence.

Comment: Carboxylic acid **I** was converted into the acyl chloride and after treatment with base, a [2+2] cycloaddition gave the ketone **J**. Cyclopentanone **L** was accessed by a ring expansion thereby assembling the carbon skeleton of (±)-retigeranic acid.