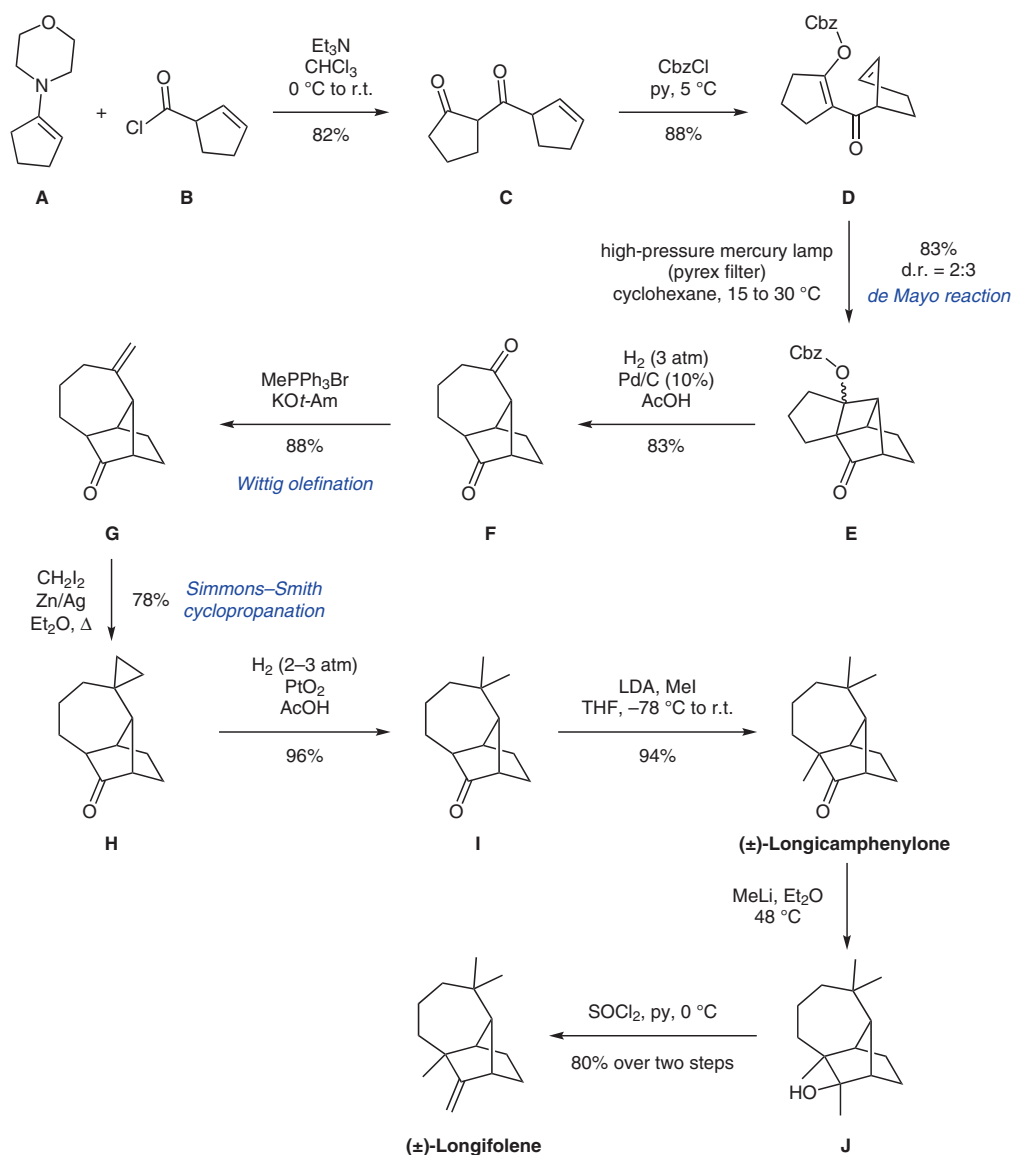


Synthesis of (±)-Longifolene



Significance: Oppolzer and Godel highlighted the synthetic utility of the *de Mayo* reaction sequence in their classical synthesis of longifolene. This tricyclic sesquiterpene occurs in the resin of several *Pinus* species, commonly extracted from its name-sake *Pinus longifolia*, and is valued for its woody odor.

Comment: [2+2] Photocycloaddition of enone **D** and hydrogenolysis of the Cbz group from the ensuing cyclobutanol **E** leads to retro-aldol fragmentation, completing the *de Mayo* sequence. This rapid approach forges the longifolene skeleton **F** in only four steps and 50% overall yield.