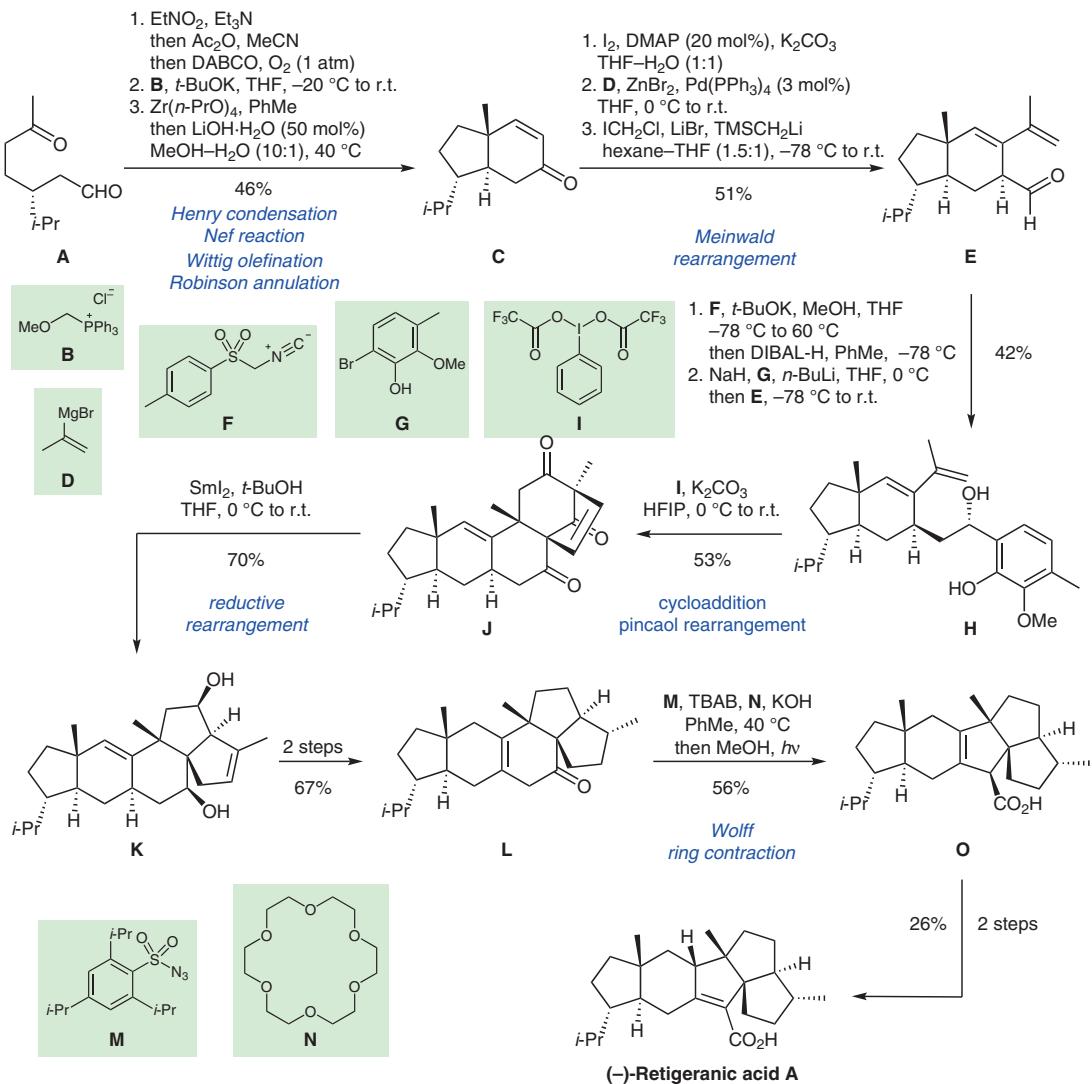


## Synthesis of (-)-Retigeranic Acid A



**Significance:** Ding and co-workers present a total synthesis of (-)-retigeranic acid A, isolated in 1965 from lichens of the *Lobaria retigera*. The pentacyclic carbon framework contains a unique *trans*-hydrindane-fused angular triquinane.

**Comment:** The *trans*-hydrindane is assembled from keto aldehyde **A** featuring a Henry condensation and Nef reaction under oxidative conditions. Homologation and addition of aryl bromide **G** led to benzylic alcohol **H**, that underwent cycloaddition and pinacol rearrangement. From triketone **J**, the carbon skeleton of (-)-retigeranic acid A was accessed via reductive rearrangement and Wolff ring contraction.

Category
Synthesis of Natural Products
Key words
(-)-retigeranic acid A
Henry condensation
Nef reaction
Wittig olefination
Robinson annulation
Meinwald rearrangement
cycloaddition and pinacol rearrangement
reductive rearrangement
Wolff ring contraction

