Synthesis of Schilancitrilactones B and C

Significance: Schilancitrilactones A, B, and C are terpenoid natural products recently isolated from Schisandra lancifolia, a plant used in traditional Chinese medicine. Schilancitrilactone C was shown to exhibit biological activity against HIV-1. The authors disclose total syntheses of schilancitrilactones B and C.

Comment: Known compound A was converted into enone F in nine steps. Intramolecular conjugate addition in aqueous pyridine followed by epoxidation, E1cb-type ring opening, and conjugate reduction set the stage for iodination of the acetal in H. Radical coupling with stannane J afforded the two natural products.