Personal Copy
Synthesis of 6-Deoxyerythronolide B

**Significance:** 6-Deoxyerythronolide B contains a highly functionalized core that is common in polyketide macrolide antibiotics. C–H oxidative macrolactonization is achieved here at a late stage of the synthetic sequence. The oxidation protocol is step 19 of a 22-step sequence that furnished the desired natural product in 7.8% overall yield.

**Comment:** Chelate-controlled cyclization accounts for the high diastereoselectivity, which is destroyed upon addition of TBAF, a reagent that is known to break down palladium chelates.