F. SCHNEIDER, K. SAMARIN, S. ZANELLA, T. GAICH* (UNIVERSITY OF KONSTANZ, GERMANY)

Total Synthesis of the Complex Taxane Diterpene Canataxpropellane


**Synthesis of (−)-Canataxpropellane**

**Significance:** (−)-Canataxpropellane is a taxane diterpenoid that was isolated from *Taxus canadensis*. Gaich and co-workers report the total synthesis of this structurally complex natural product. Key to the synthesis is an intramolecular [2+2] cycloaddition that forms the fully substituted cyclobutane.

**Comment:** Cyclobutane E was assembled in two steps from A and B through Diels–Alder cycloaddition and intramolecular [2+2] cycloaddition. \(^1\)O₂ cycloaddition of F followed by reductive O–O bond cleavage gave H. Oxidation of diol L and pinacol coupling completed the carbon skeleton.