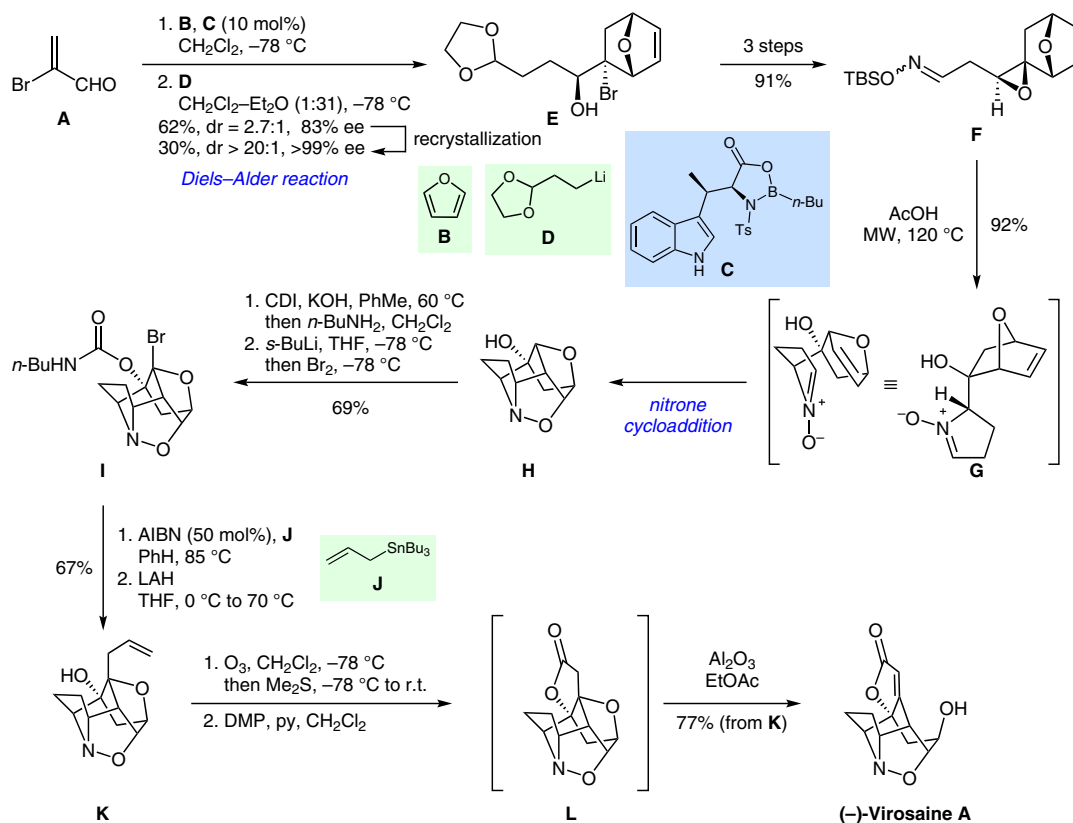


Synthesis of (-)-Virosaine A



Significance: Virosaine A is a highly congested, polycyclic member of the *Securinega* alkaloid family. In their elegant synthetic approach towards (-)-virosaine A, Gleason and Hughes rely on an epoxide opening to trigger the intramolecular [3+2] cycloaddition proposed in its biosynthesis.

Comment: Epoxide opening in oxabicyclo **F** afforded nitronium **G**, which underwent an intramolecular cycloaddition reaction to give the pentacyclic core structure **H**. Subsequent alcohol protection and regioselective lithiation/bromination afforded intermediate **I**, which was converted to (-)-virosaine A by a sequence of five more transformations.