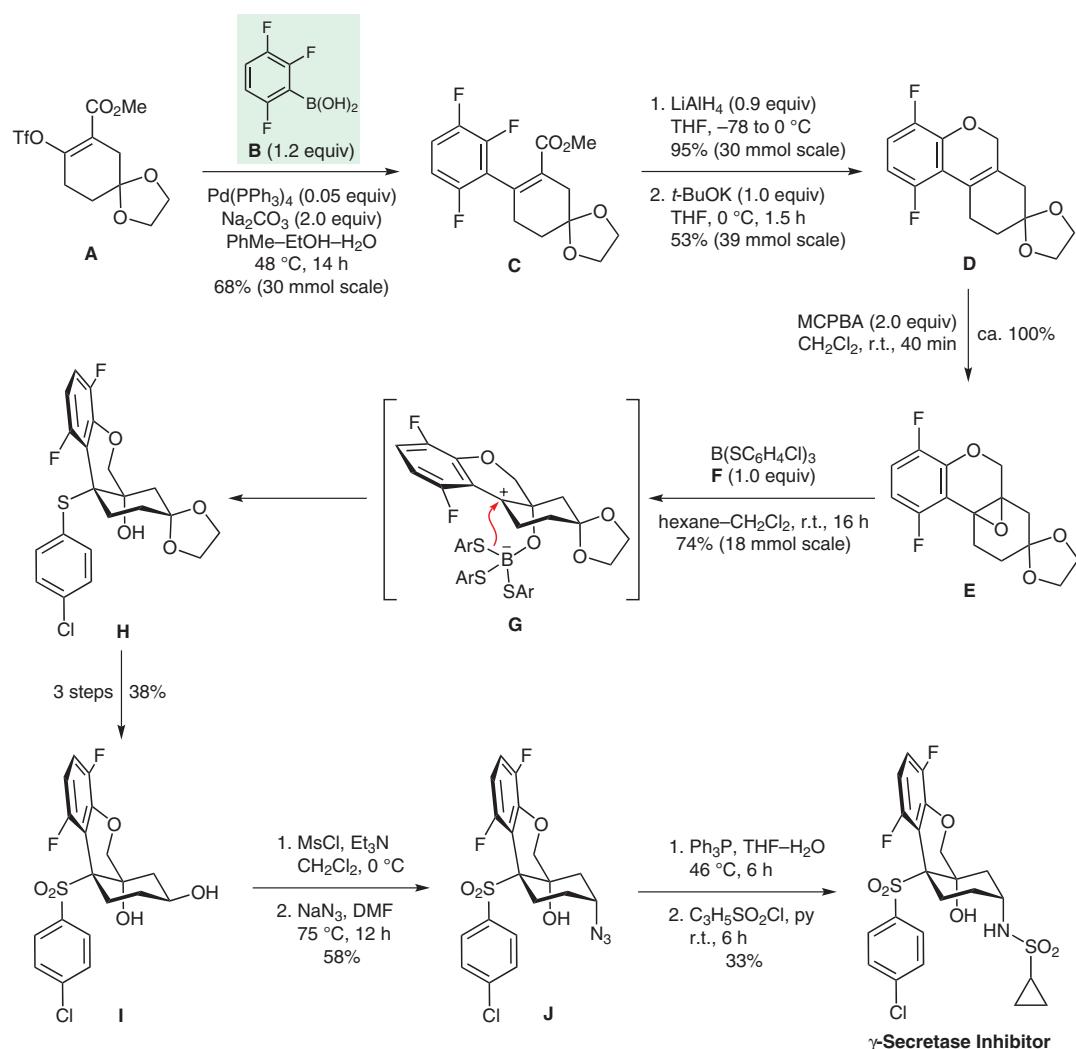


Synthesis of a γ -Secretase Inhibitor



Significance: γ -Secretase inhibitors are of interest for the treatment of Alzheimer's disease. The key step in the synthesis of the target γ -secretase inhibitor is the stereoselective opening of the epoxide **E** using a (triarylthio)boron reagent **F** derived from reaction of BH_3 with *p*-chlorobenzenethiol.

Comment: The *cis* stereochemistry in **H** derives from prior coordination of the (triarylthio)boron reagent to the epoxide oxygen in **E** followed by epoxide ring opening and intramolecular transfer of an arylthio group to the resultant carbocation **G**.