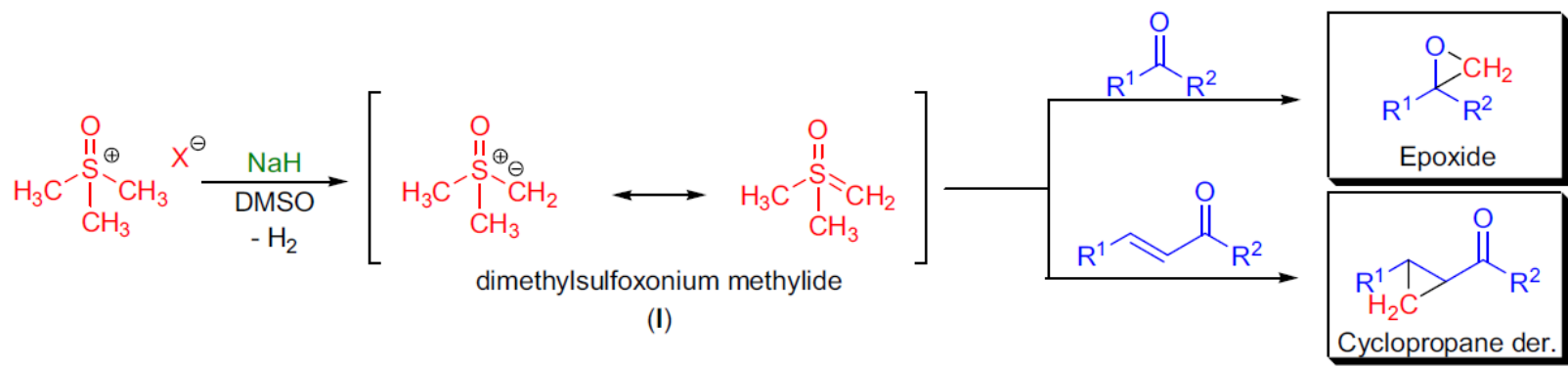
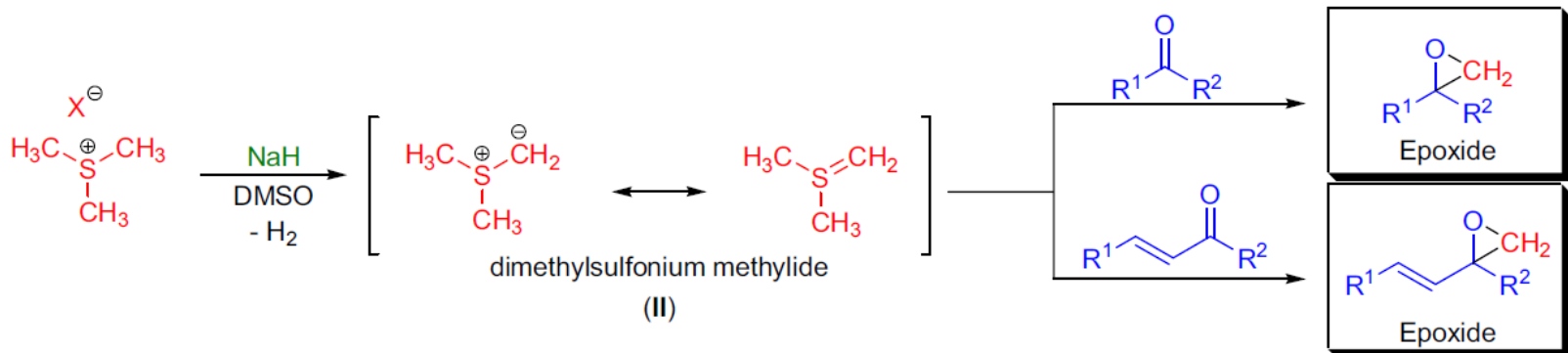


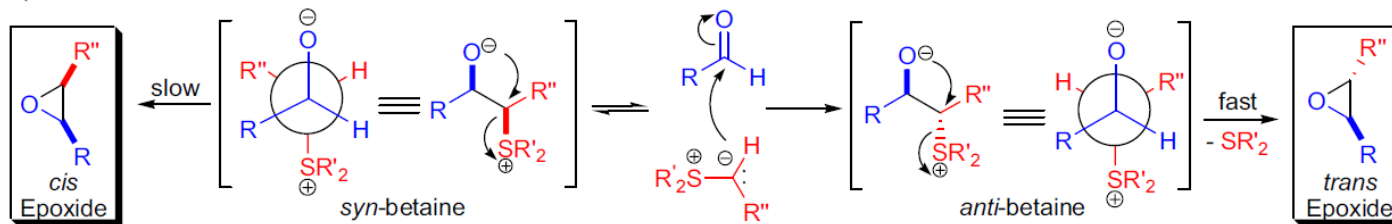
COREY-CHAYKOVSKY EPOXIDATION AND CYCLOPROPANATION



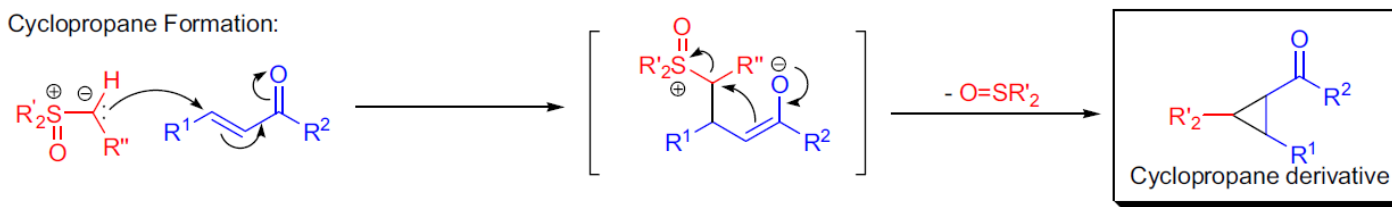
X = Cl, Br, I

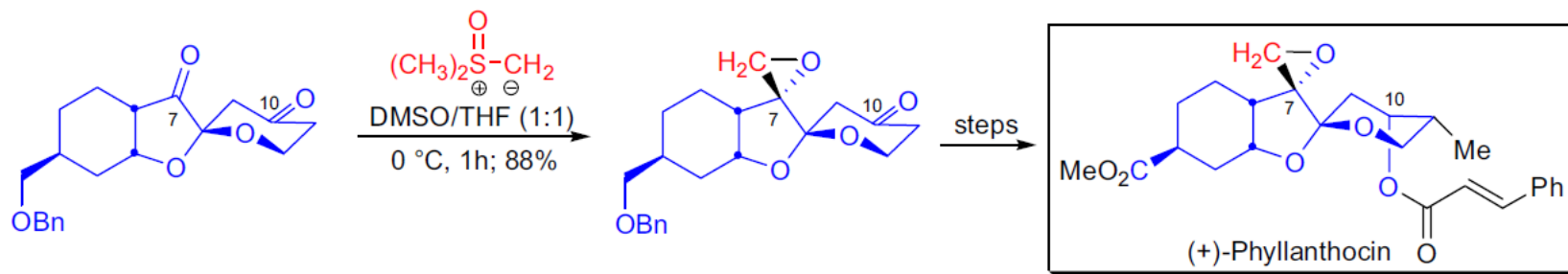


Epoxide Formation:



Cyclopropane Formation:





One of the steps in the highly stereoselective total synthesis of (\pm)-isovelleral involved the cyclopropanation of an α,β -unsaturated ketone using dimethylsulfoxonium methylide.²⁹ C.H. Heathcock and co-workers studied this transformation under various conditions and they found that THF at ambient temperature gave superior results to DMSO, which is the most common solvent for the *Corey-Chaykovsky cyclopropanation*.

