

CHEM – 750

Advanced Organic synthesis



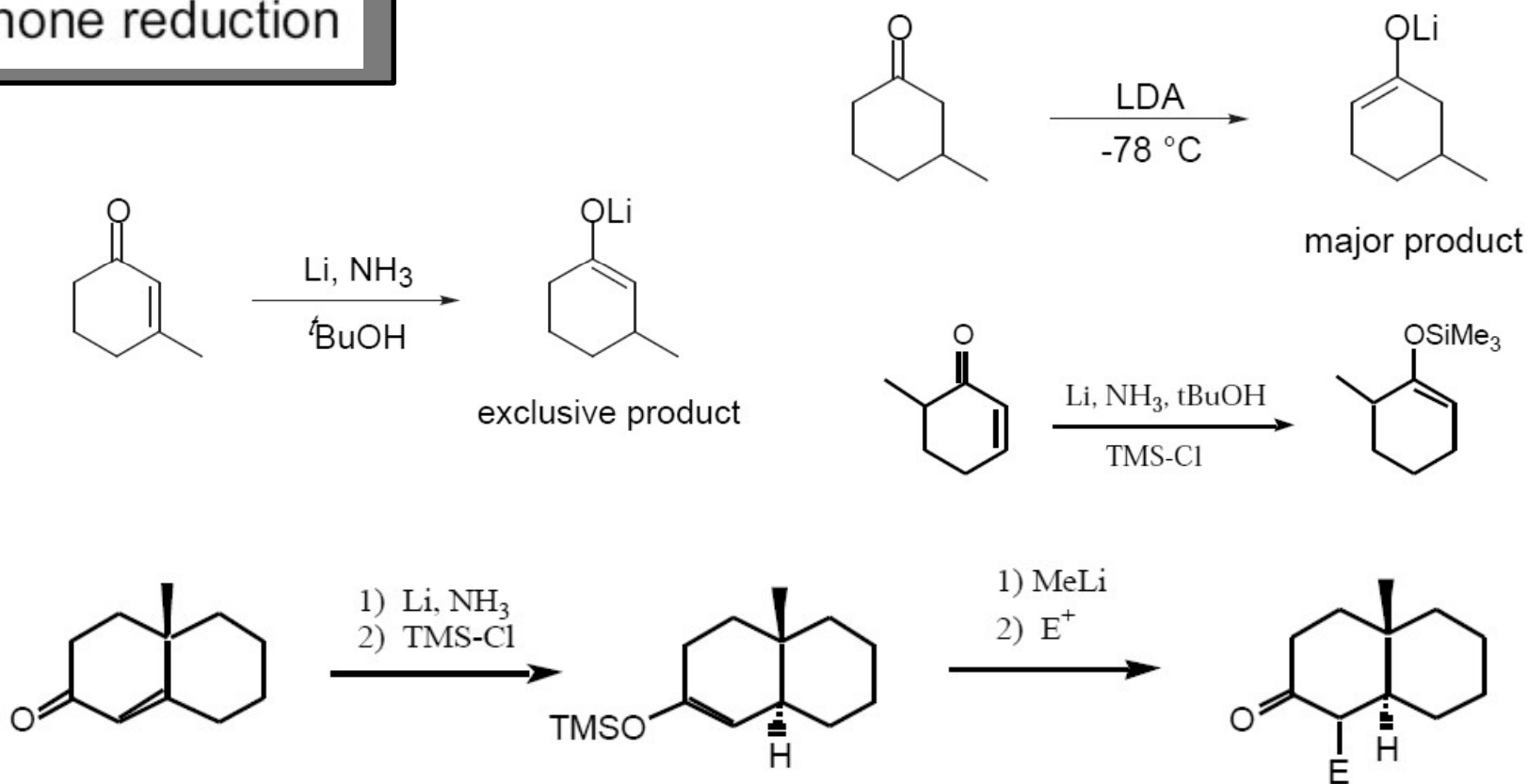
Dr. Humaira Yasmeen Gondal
Department of Chemistry
University of Sargodha



Other methods of regioselective enolate formation

chemical modification of pre-existing functionality

enone reduction

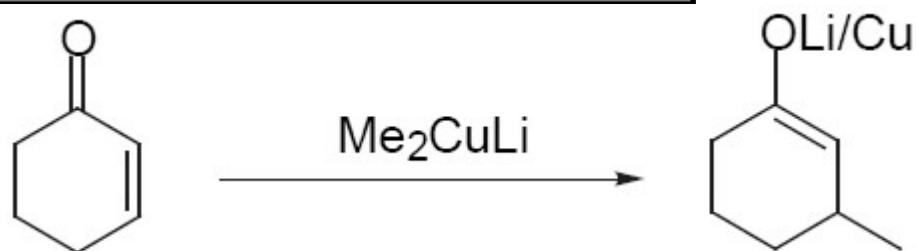




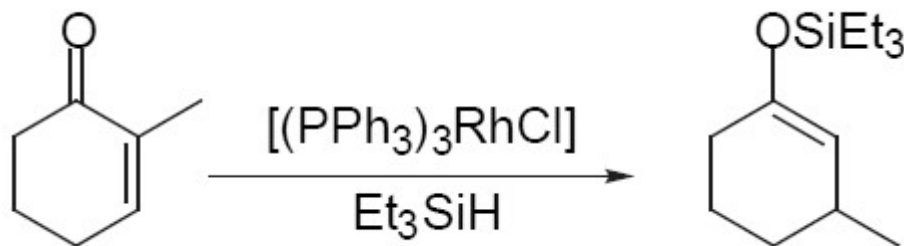
Other methods of regioselective enolate formation

chemical modification of pre-existing functionality

conjugate addition of soft nucleophiles such as cuprates to enones



Hydrosilylation of enones

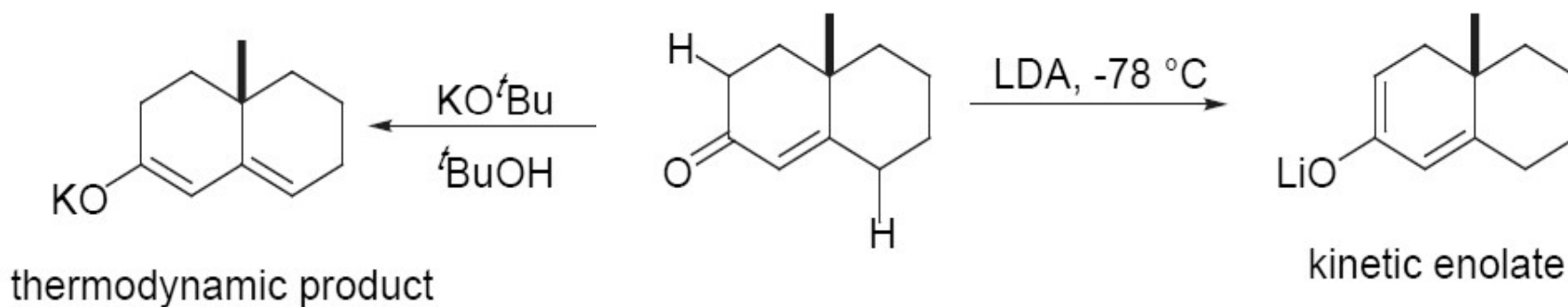




Other methods of regioselective enolate formation

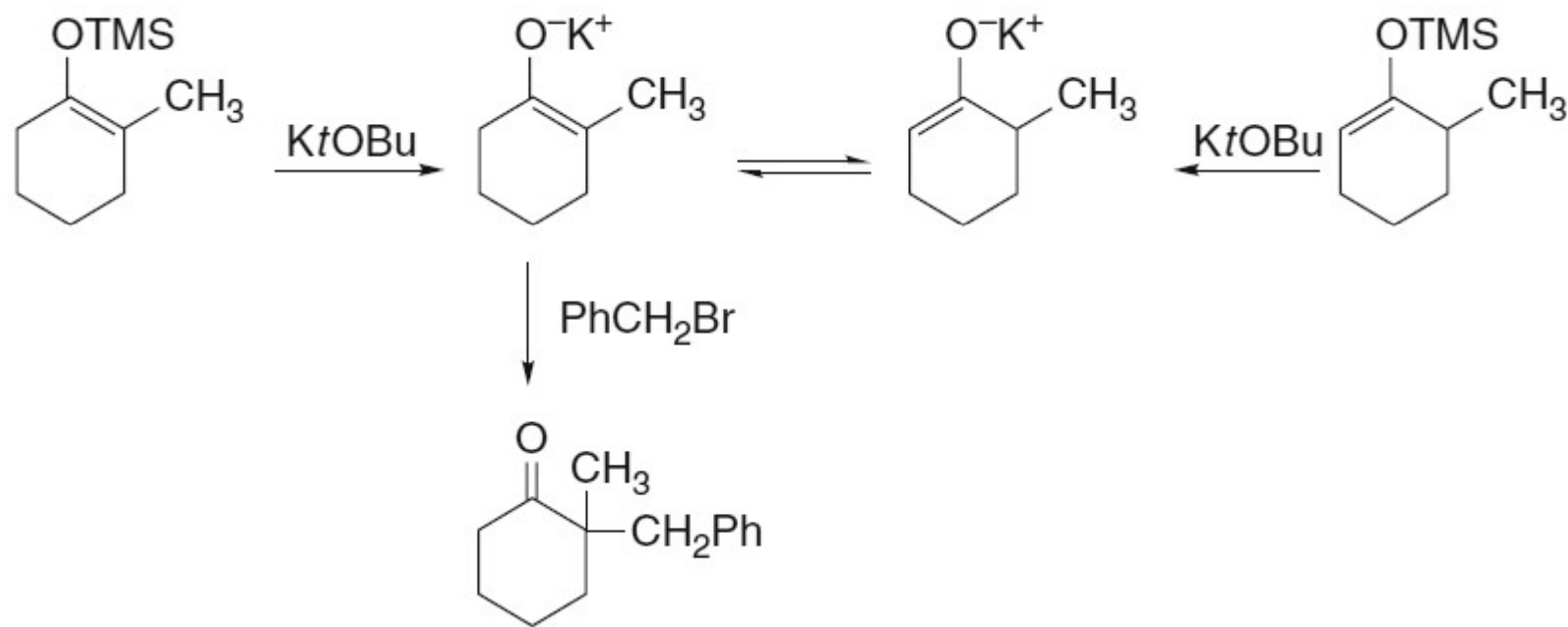
chemical modification of pre-existing functionality

Direct deprotonation of enones





Other methods of regioselective enolate formation

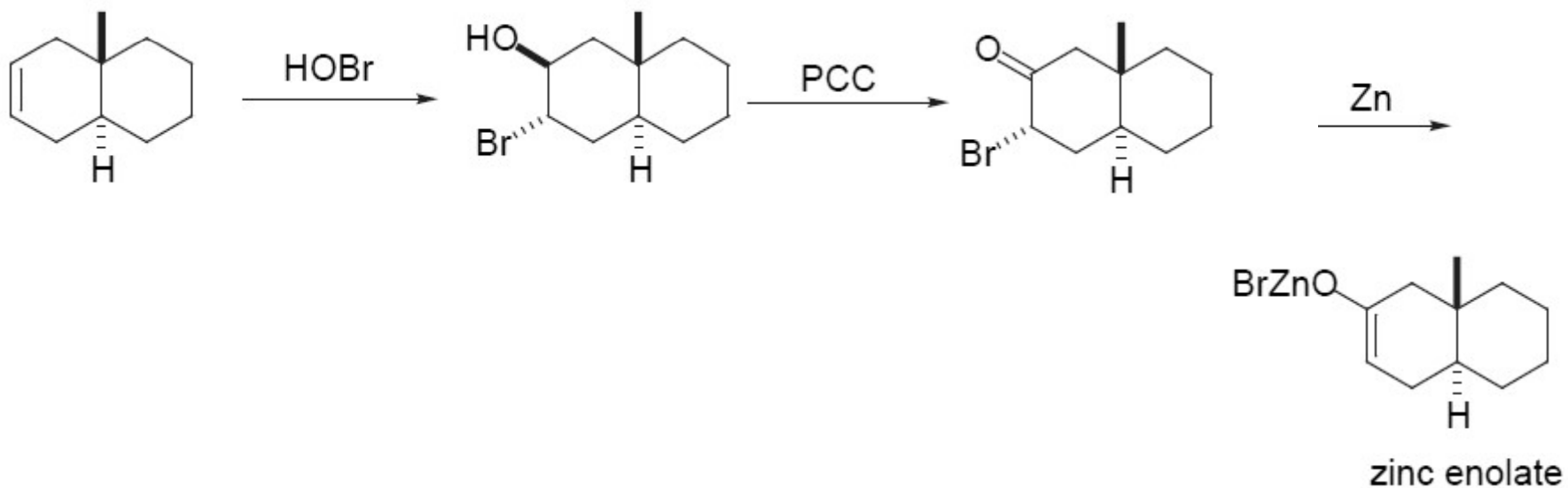
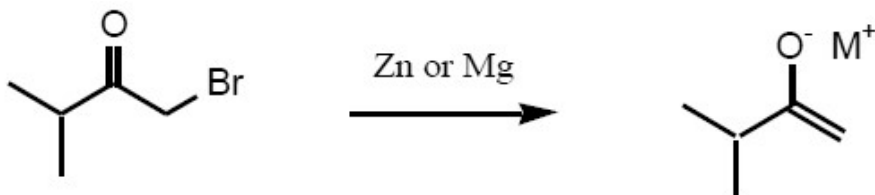




Other methods of regioselective enolate formation

chemical modification of pre-existing functionality

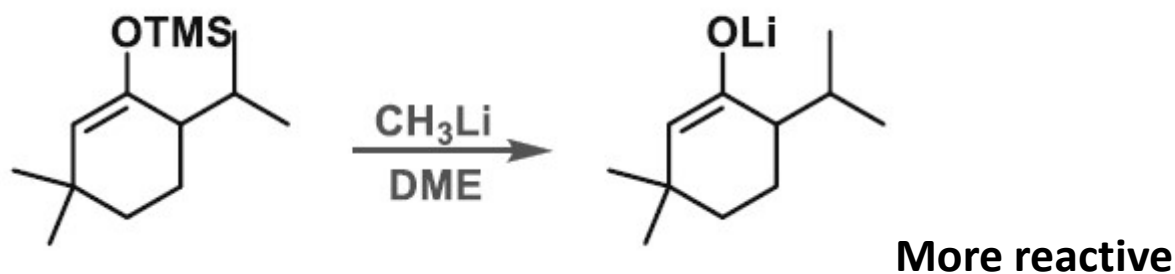
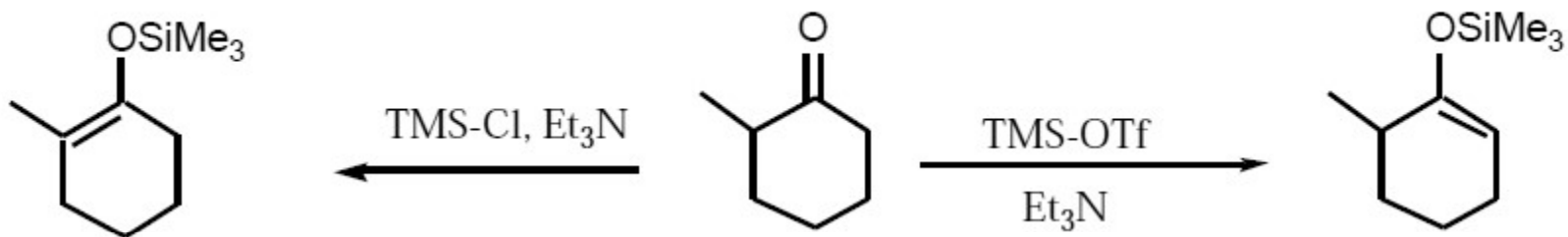
from α -bromo ketones





Other methods of regioselective enolate formation

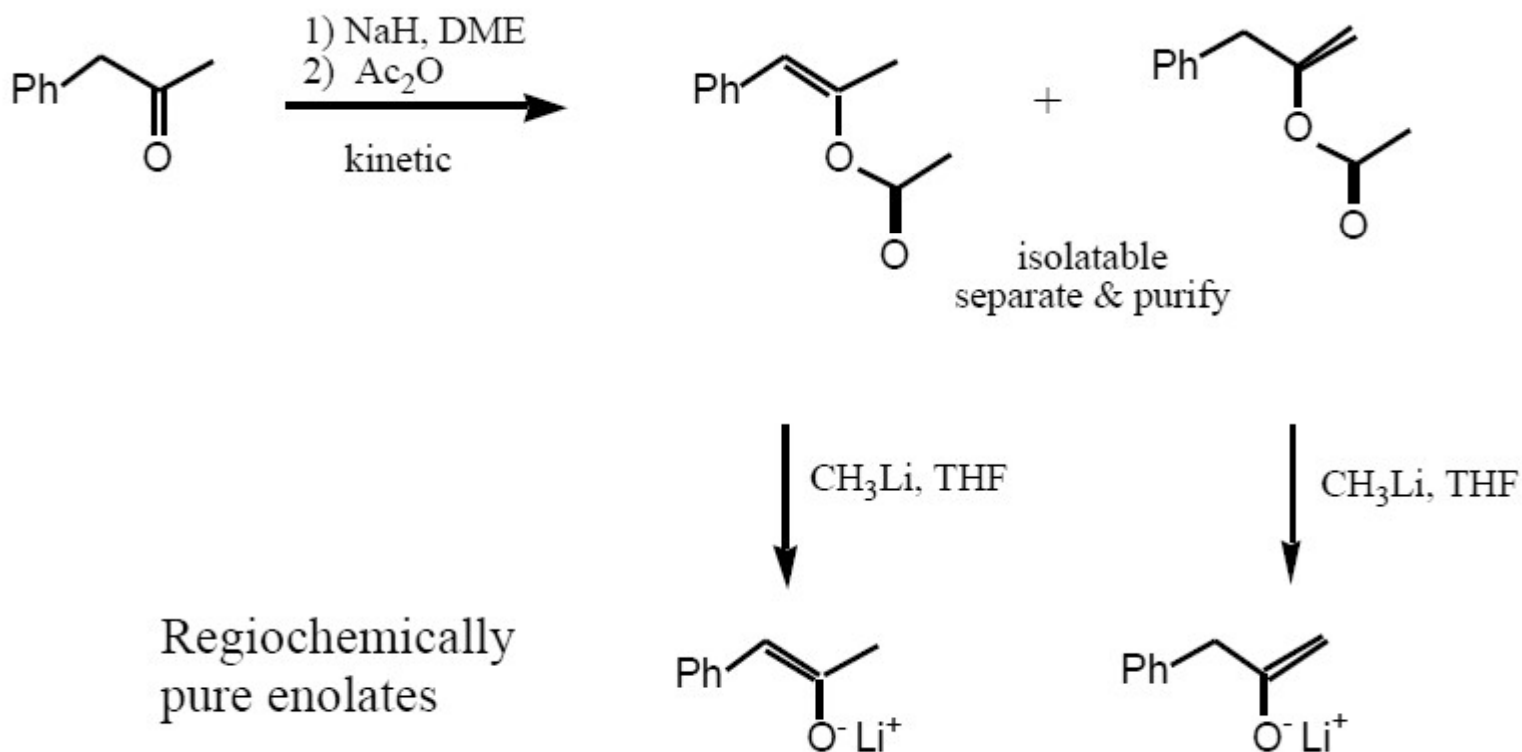
chemical modification of pre-existing functionality





Other methods of regioselective enolate formation

enol acetates

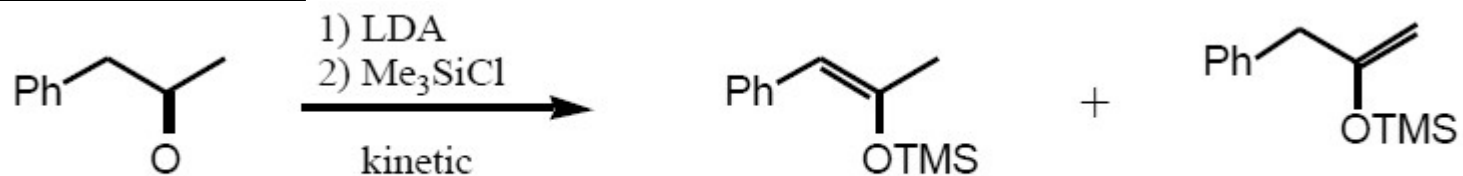




Other methods of regioselective enolate formation

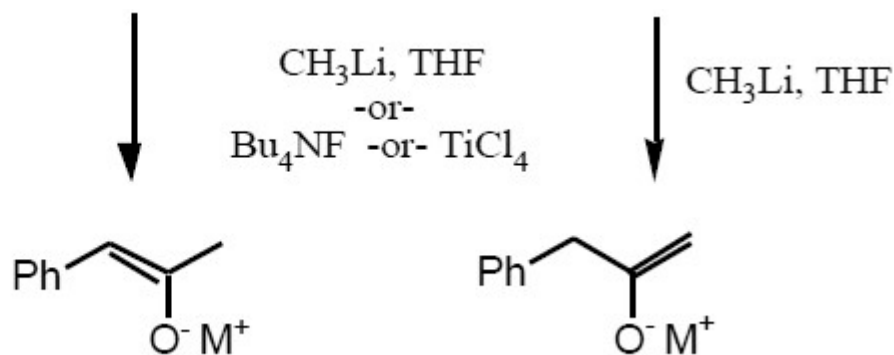
Trapping of Kinetic Enolates

silyl enolethers



isolatable
separate & purify

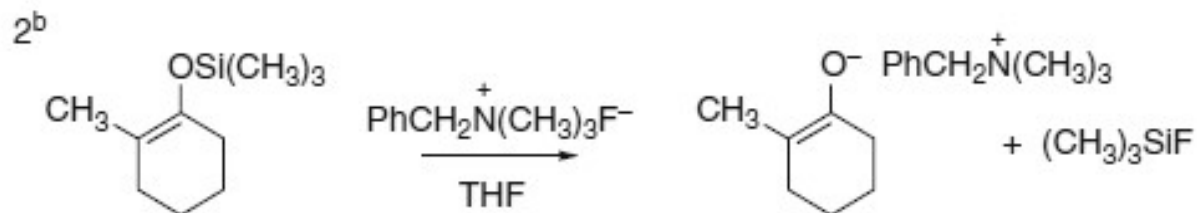
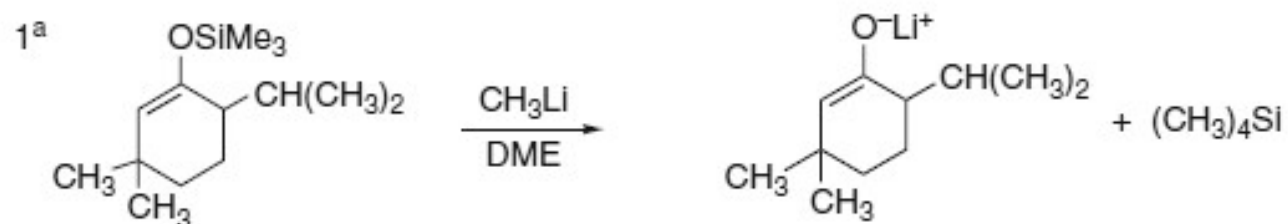
Geometrically
pure enolates



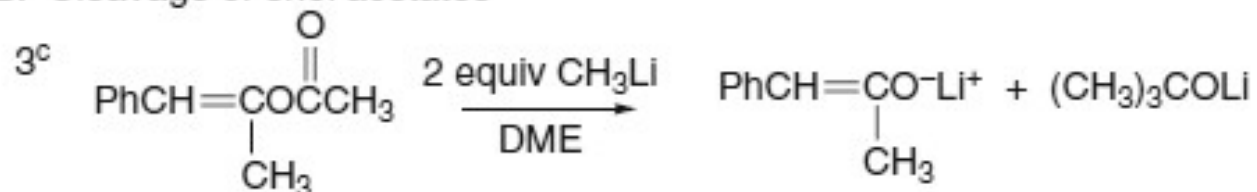


Other methods of regioselective enolate formation

A. Cleavage of trimethylsilyl ethers



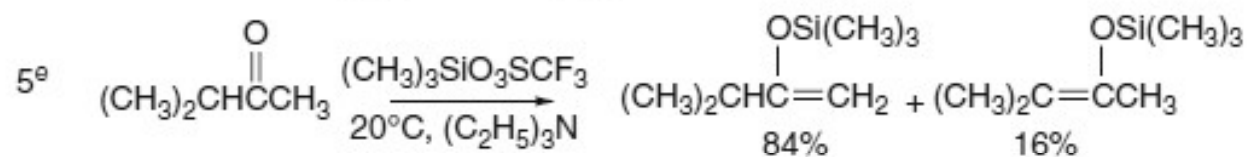
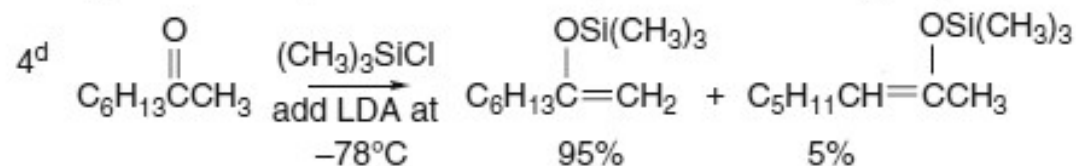
B. Cleavage of enol acetates





Other methods of regioselective enolate formation

C. Regioselective silylation of ketones by in situ enolate trapping



D. Reduction of α,β -unsaturated ketones

