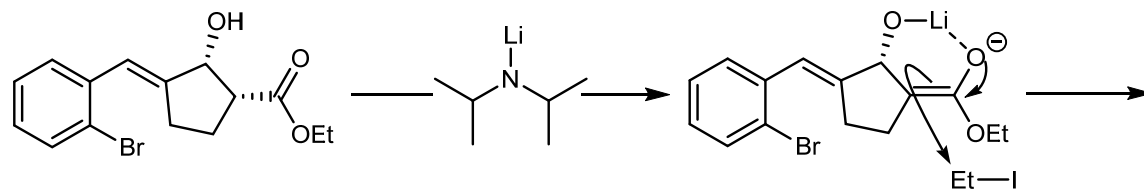
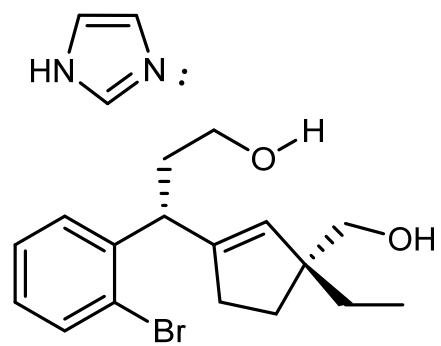
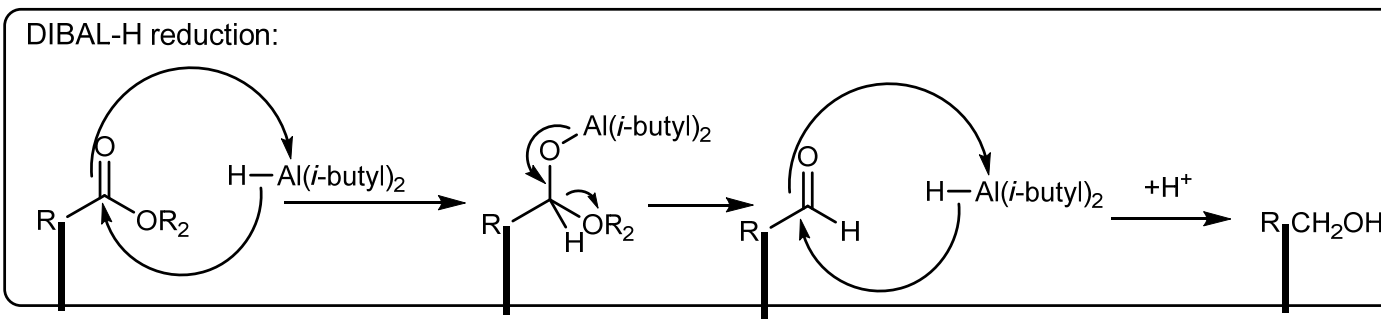
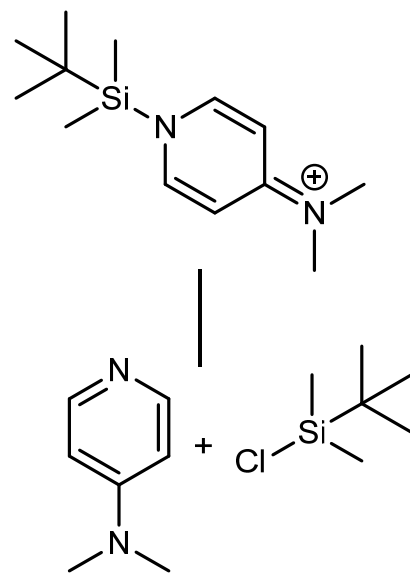


ethylation mechanism:

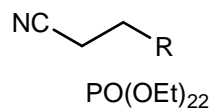
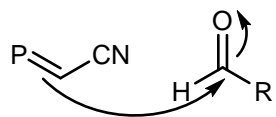




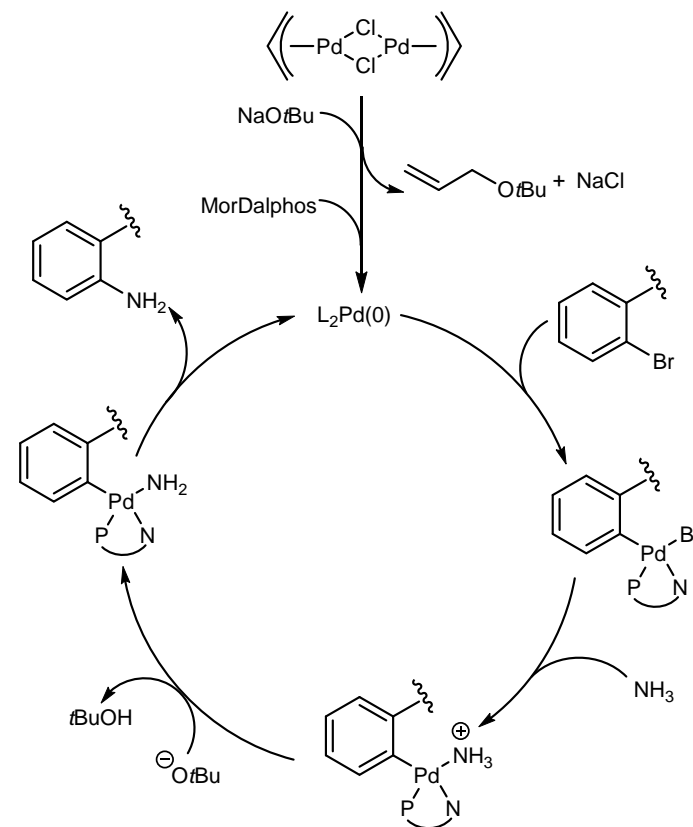
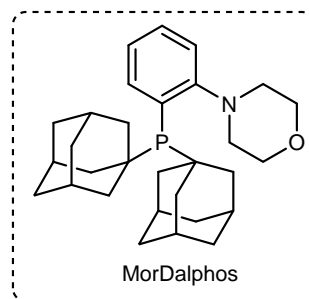
TBS protection:



Horner-Wadsworth-Emmons Olefination



Pd-MorDalphos catalyzed amination mechanism:



Boc protection:

