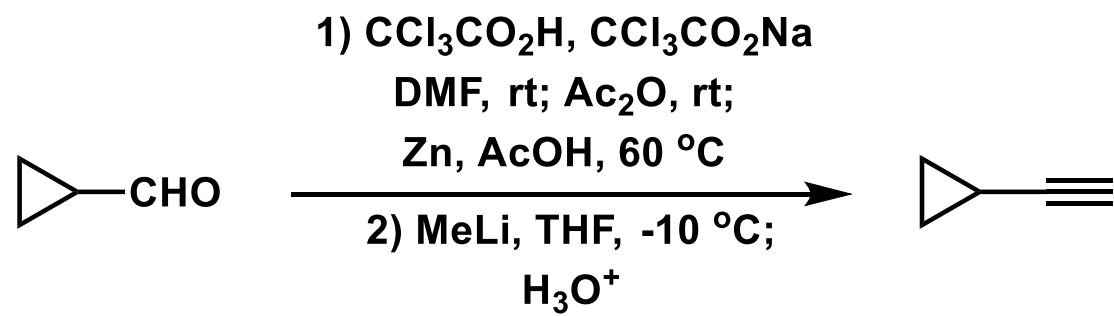
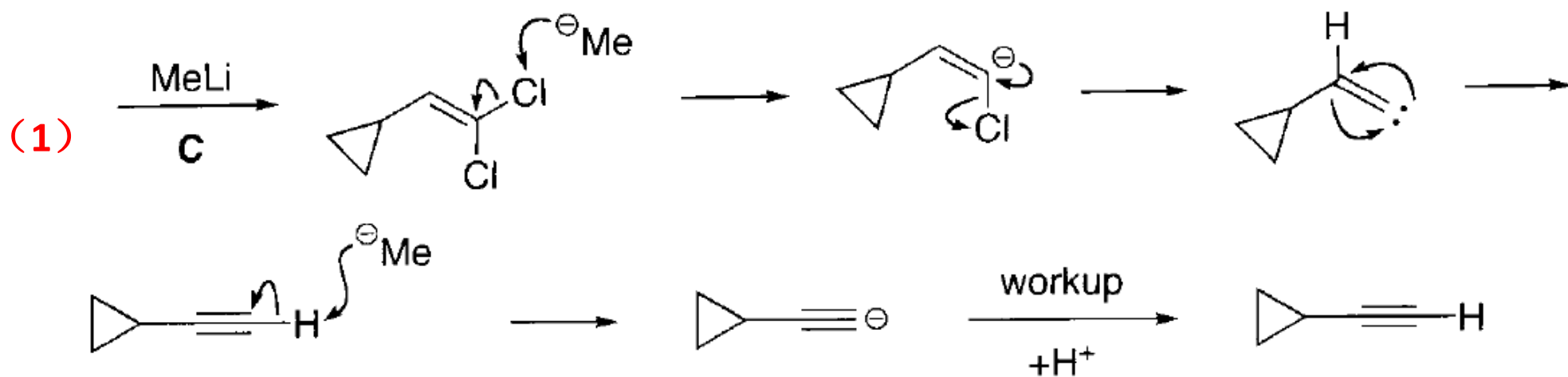
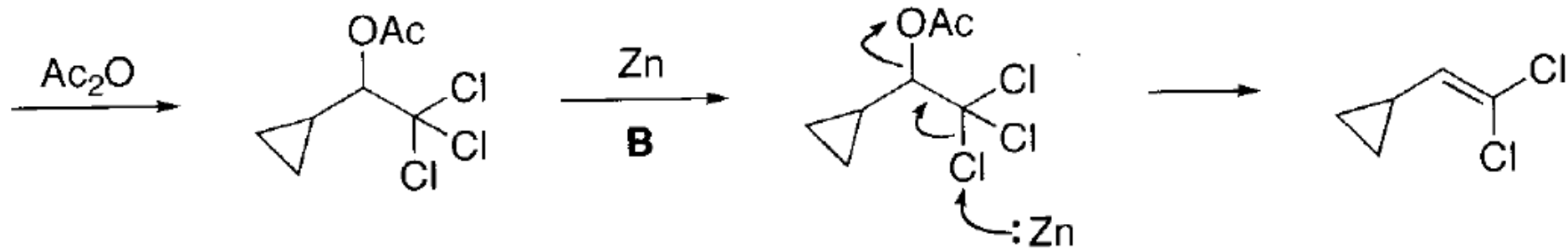
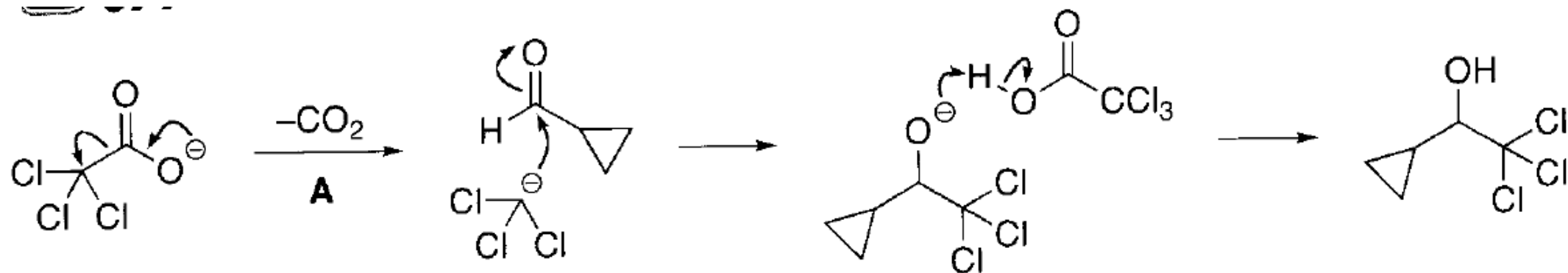


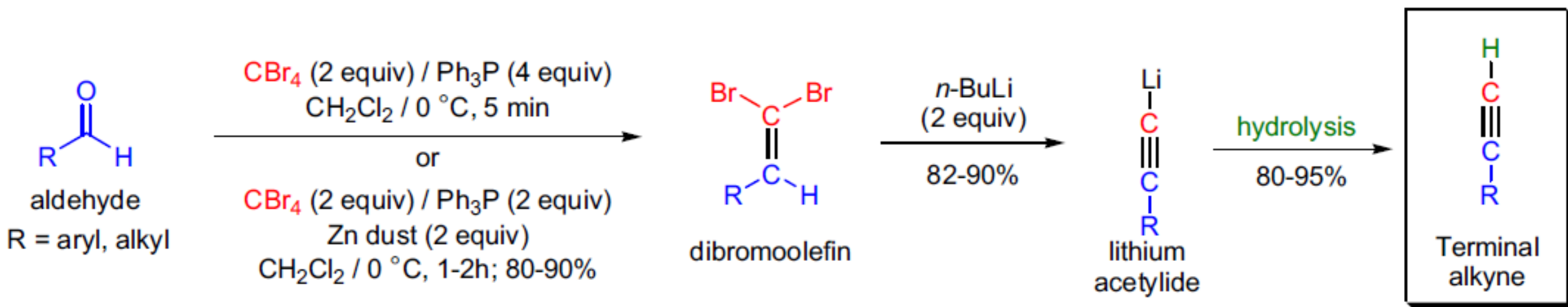
1.



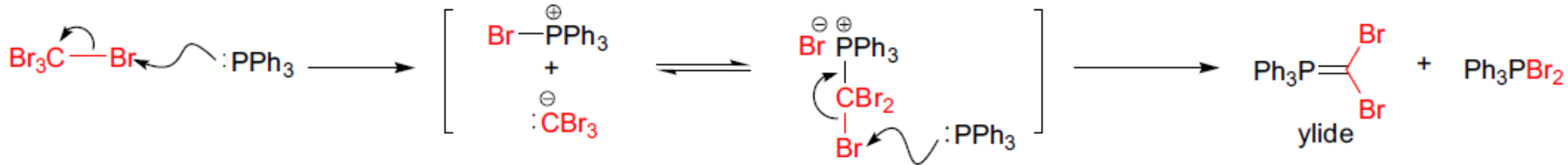


Corey-Fuchs炔合成反应 (P104)

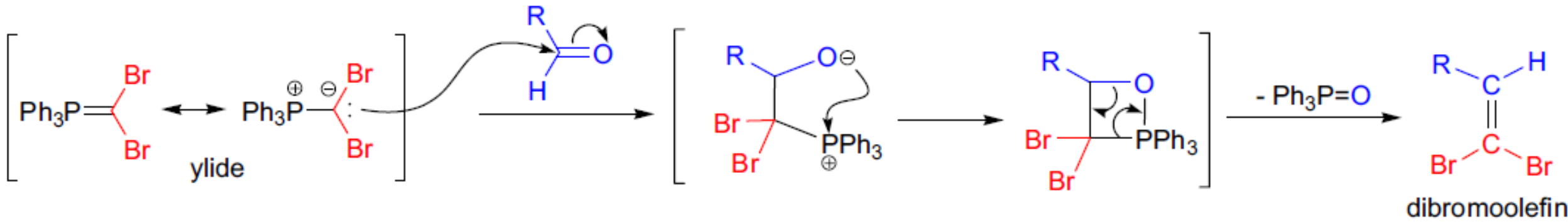
醛与四溴化碳和三苯基膦反应，发生一碳同系化生成二溴烯烃，然后再用正丁基锂处理而得到末端炔烃的反应。



Generation of the phosphorous ylide:

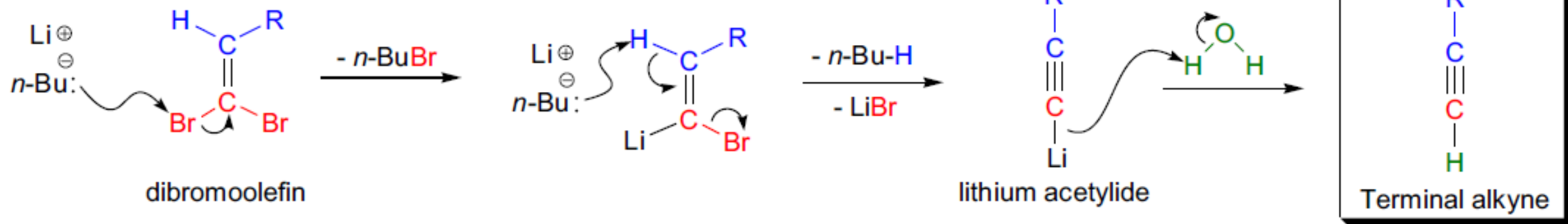


Reaction of the phosphorous ylide with the aldehyde:

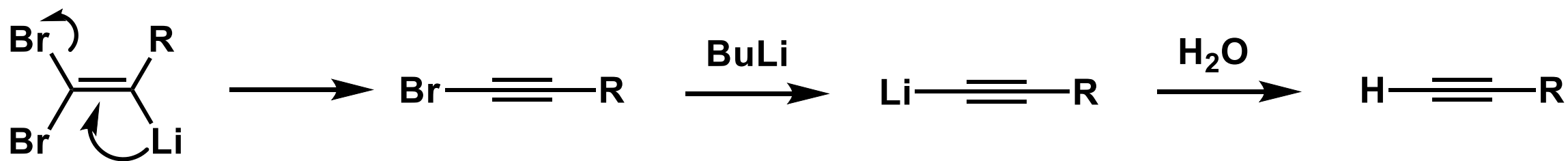


Conversion of dibromoolefin to terminal alkyne:

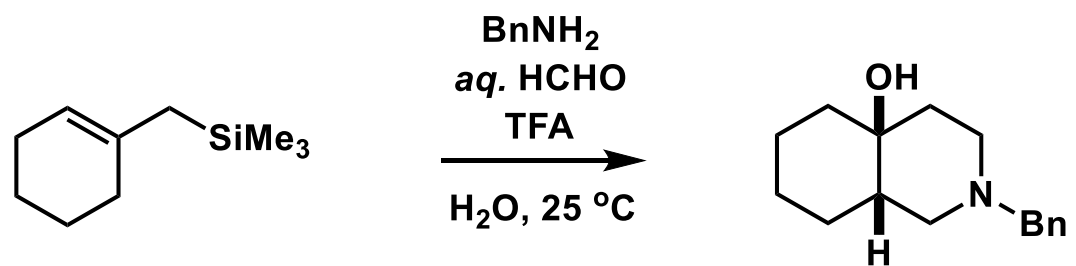
(2)

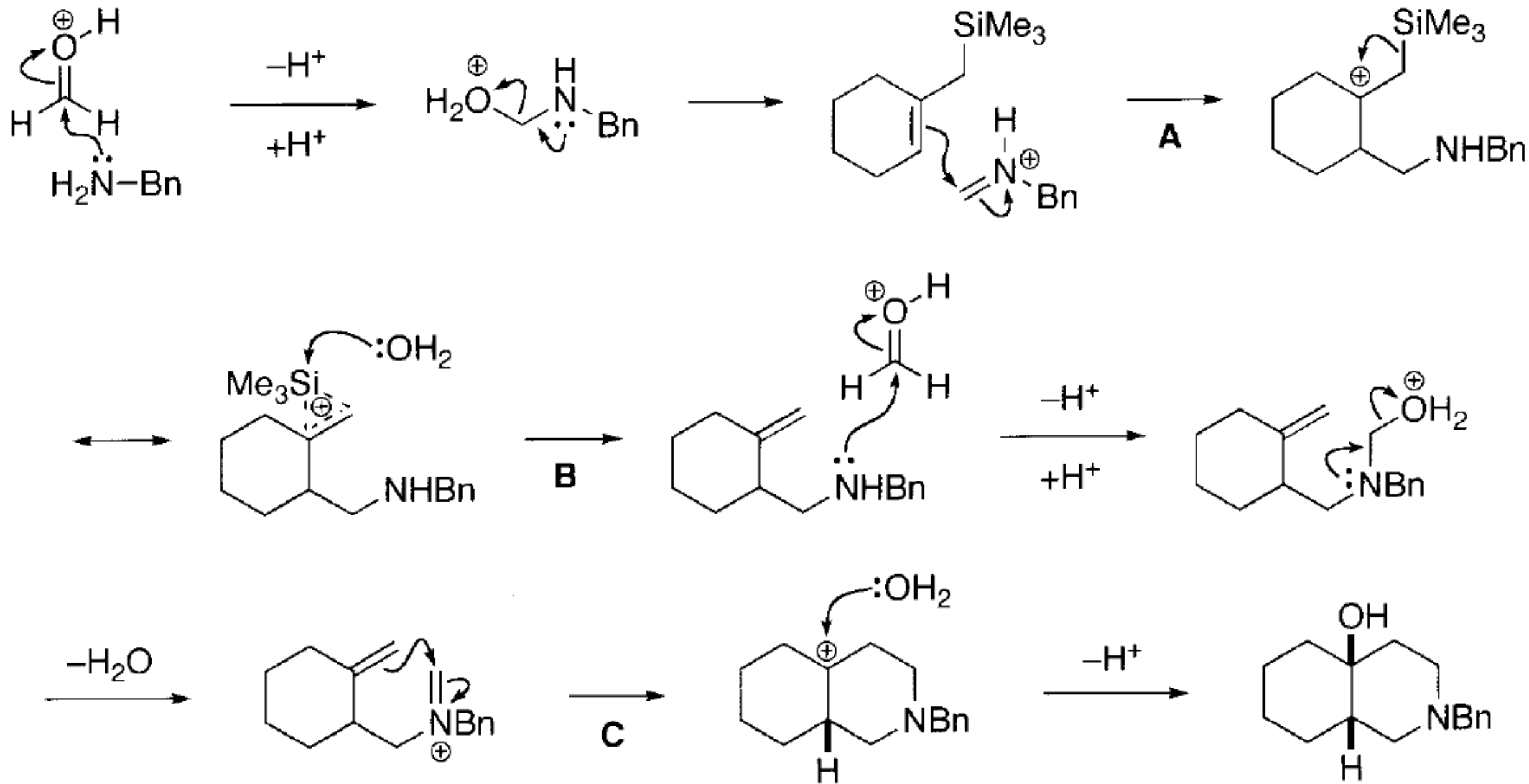


(3)



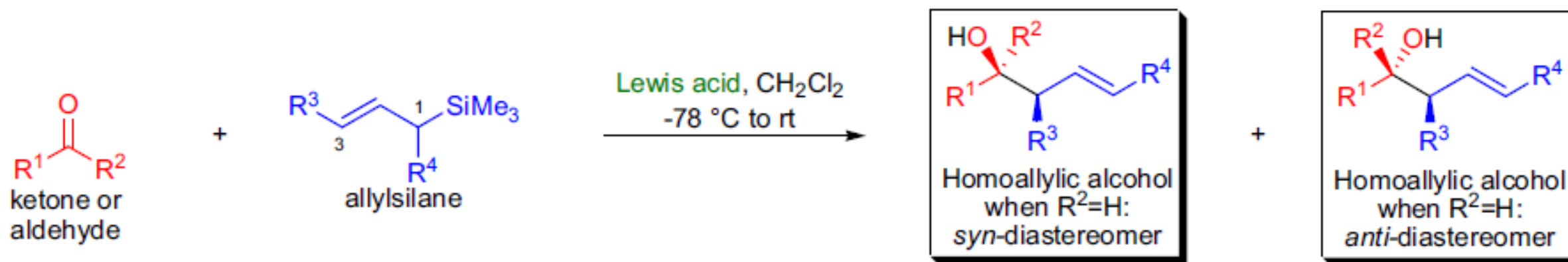
2.



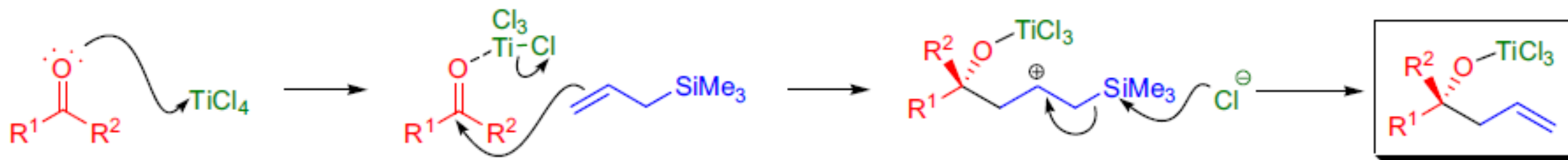


Sakurai烯丙基化反应 (P392)

Lewis酸催化下烯丙基硅烷作为碳亲核试剂进行烯丙基化的反应。



R¹ = alkyl, aryl; R² = H, alkyl, aryl; R³ and R⁴ = H, alkyl, aryl; Lewis acid = TiCl₄, BF₃·OEt₂, SnCl₄, EtAlCl₂

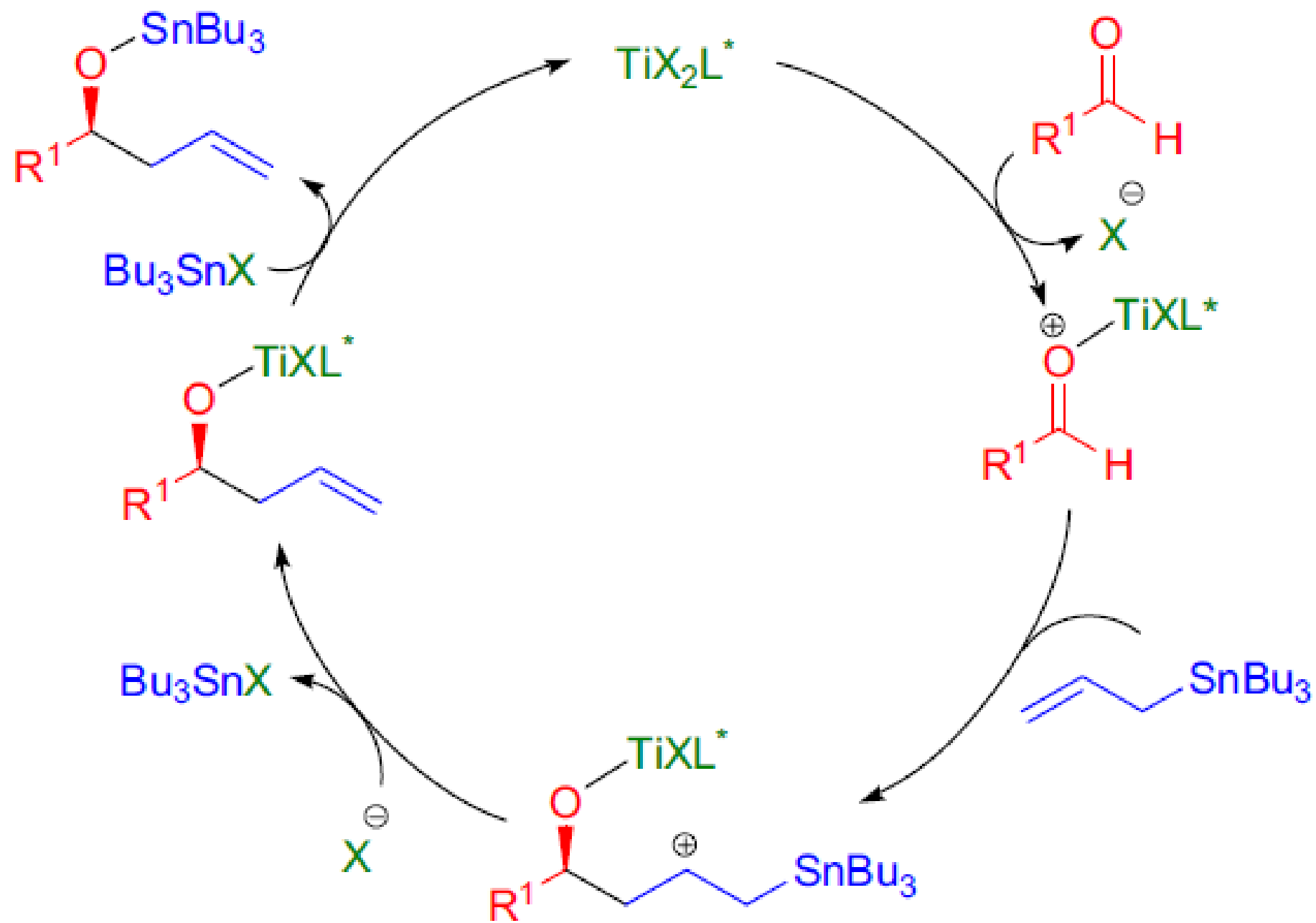


Keck不对称烯丙基化反应 (P236)

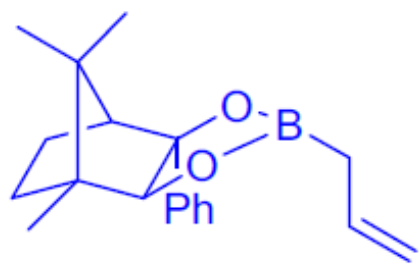
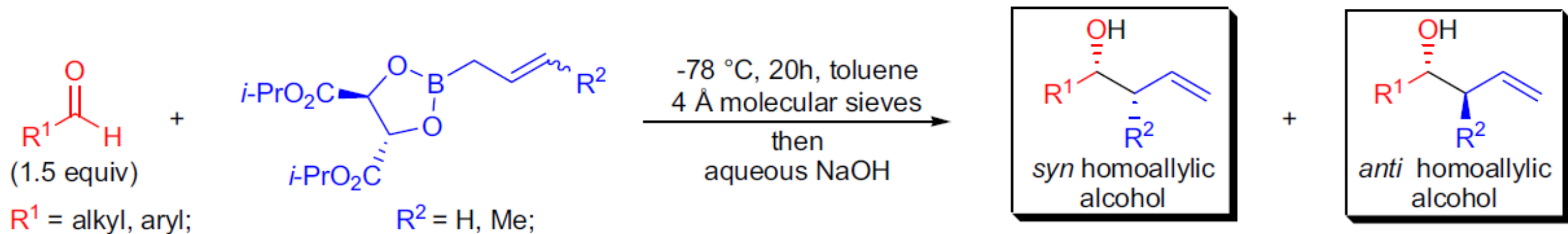
在Ti(IV)-BINOL络合物催化下，烯丙基亲核试剂对映选择性的加成到醛上制备手性仲醇的反应。



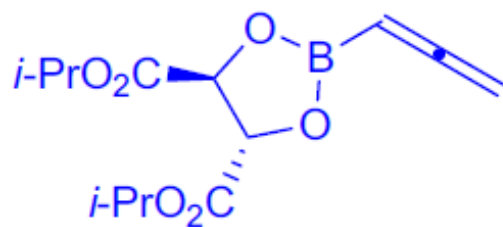
R^1 = alkyl, aryl, alkenyl; R^2 = alkyl, O-alkyl; Mikami's catalyst: $\text{TiCl}_2(\text{O}i\text{-Pr})_2$ + (S)-BINOL (0.3 equiv) + 4Å MS in CH_2Cl_2 , toluene, 1h, r.t.; Keck's catalyst: $\text{Ti}(\text{O}i\text{-Pr})_4$ + (R)-BINOL (2 equiv) + 4Å mol sieves in CH_2Cl_2 , 1h, r.t.; Tagliavini's catalyst: $\text{TiCl}_2(\text{O}i\text{-Pr})_2$ + (S)-BINOL (slight excess) + 4Å mol. sieves in CH_2Cl_2 , 2h, r.t.;



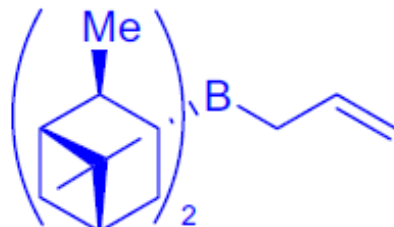
Roush不对称烯丙基化反应 (P386)



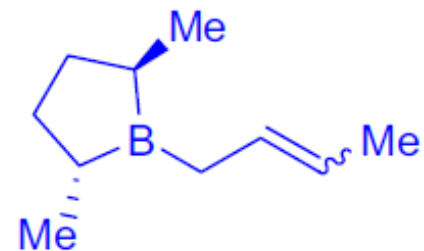
Hoffmann (1978)



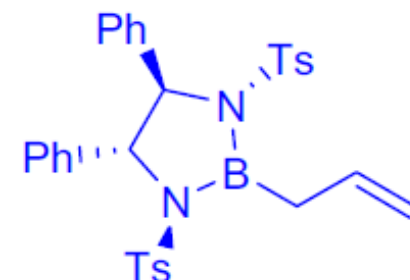
Yamamoto (1982)



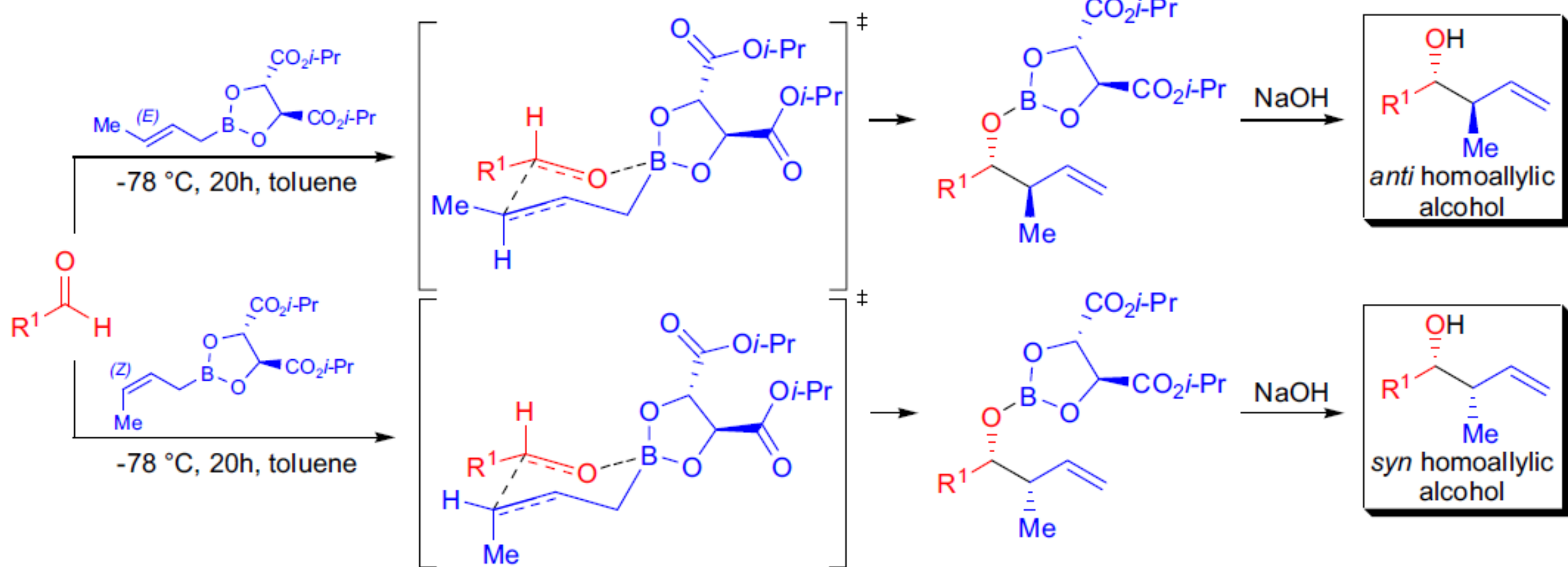
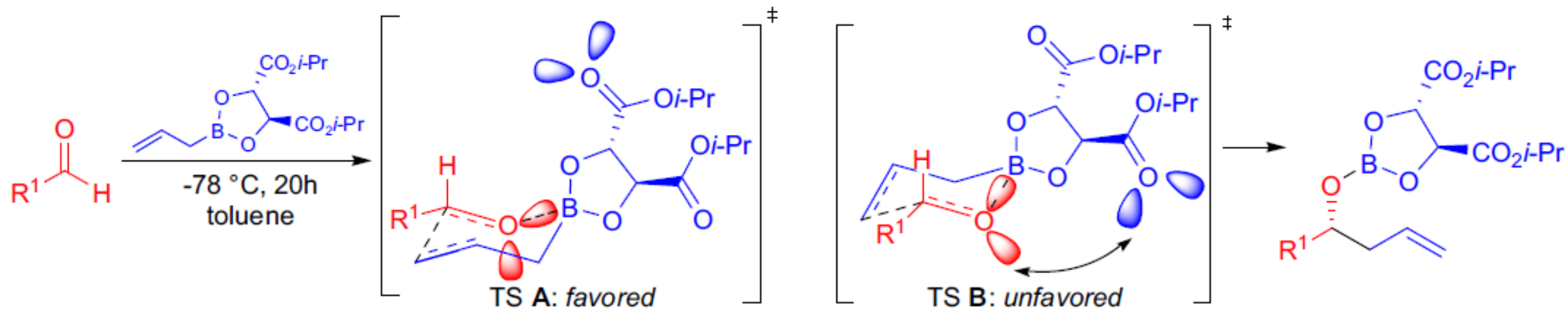
Brown (1983)



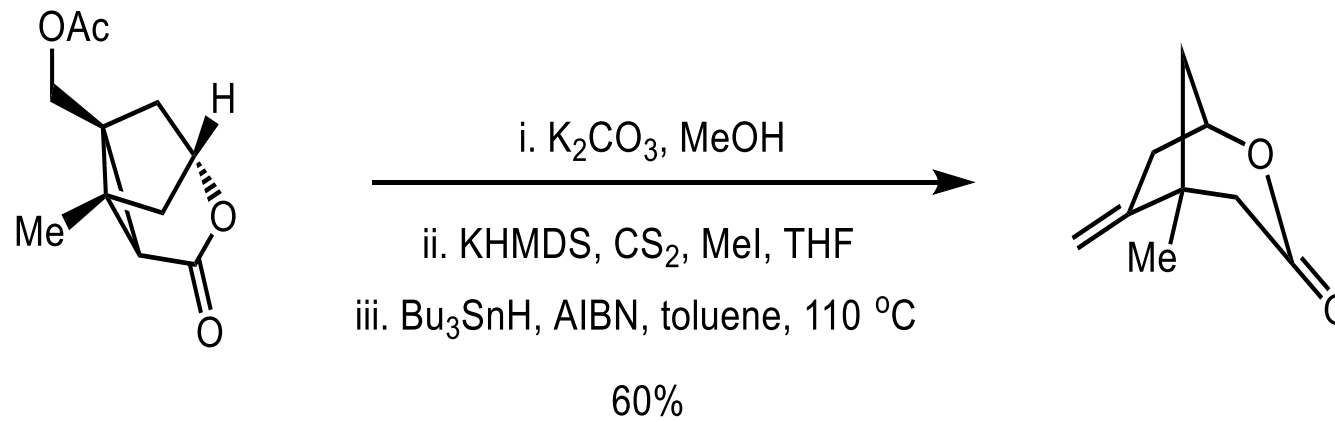
Masamune (1987)



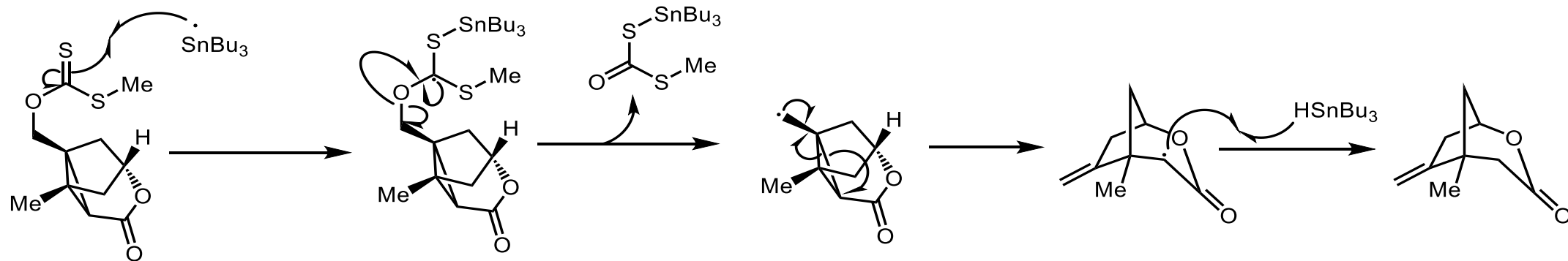
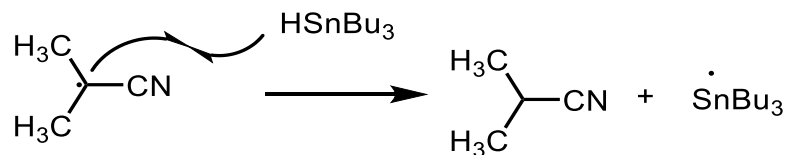
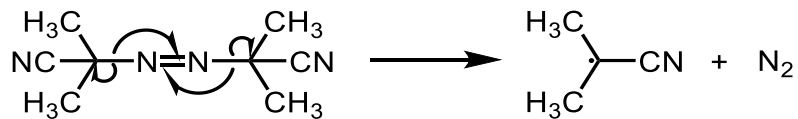
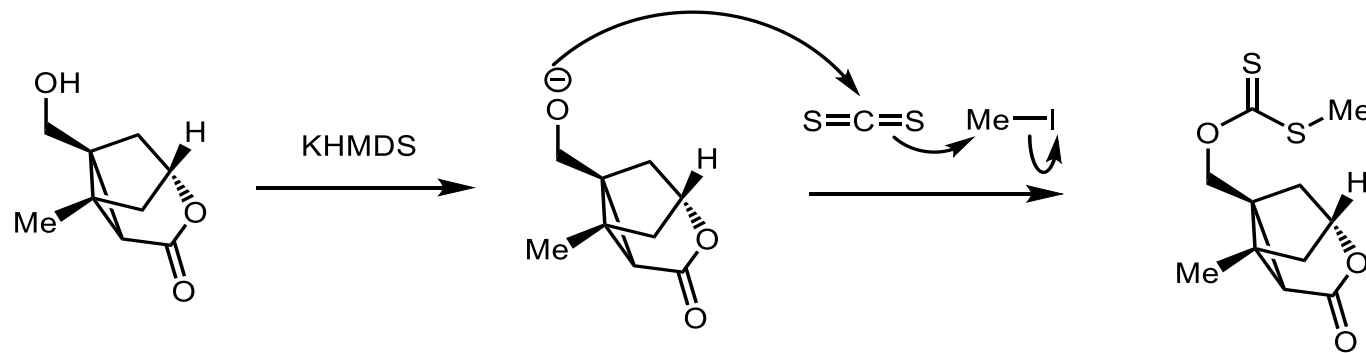
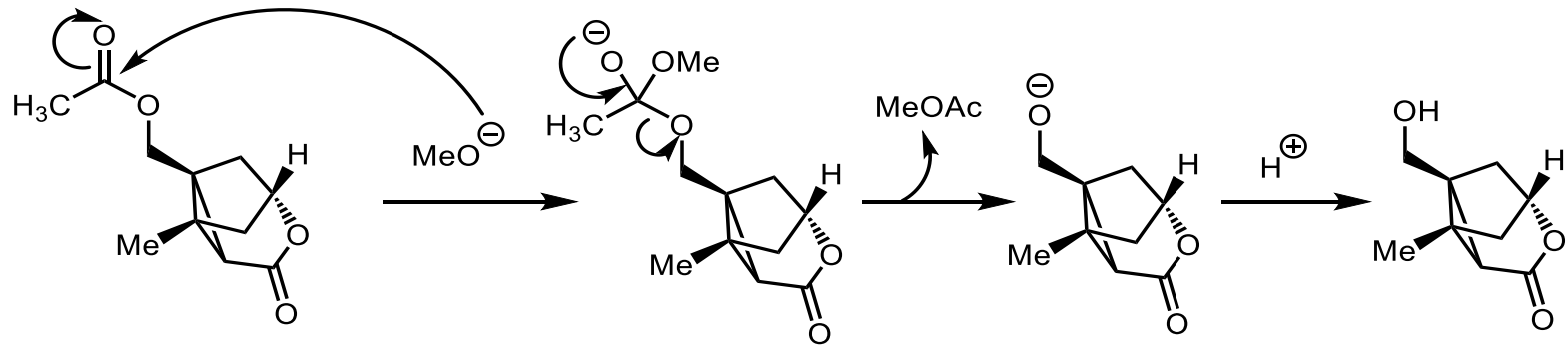
Corey (1989)



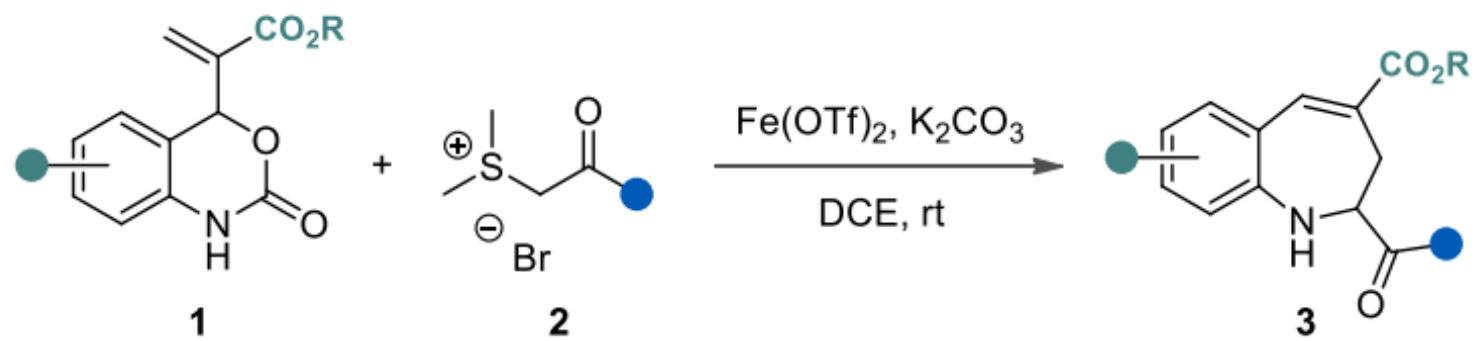
3.



J. Org. Chem. **2008**, 24, 9576.



4.



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