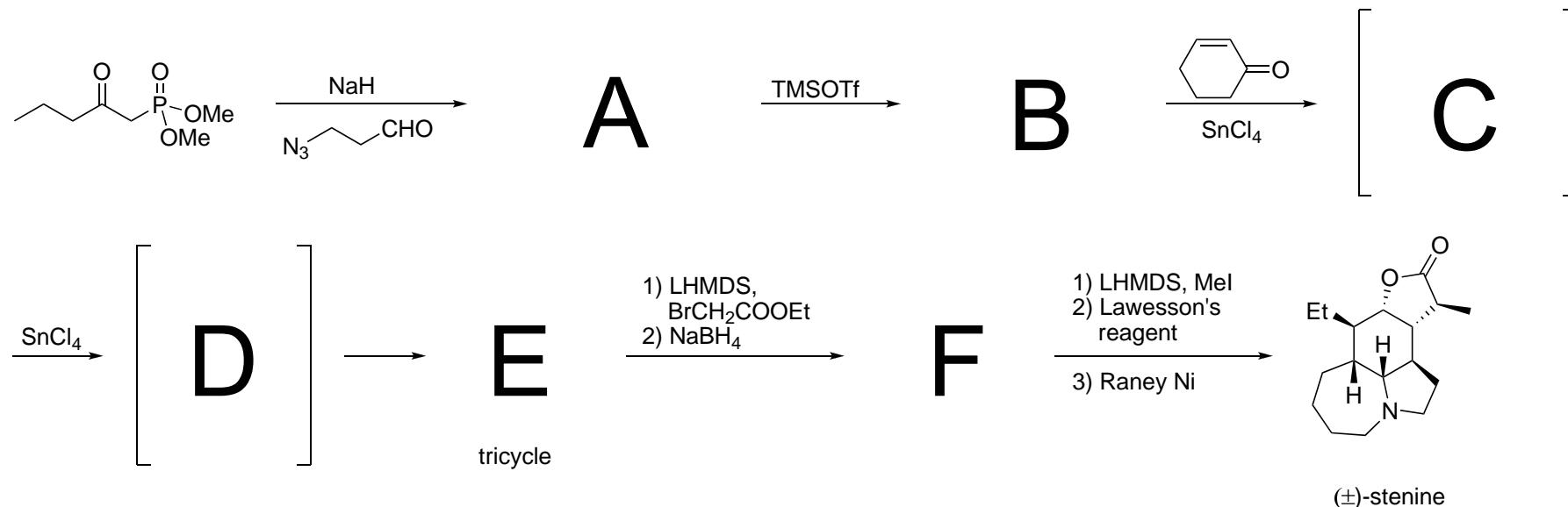
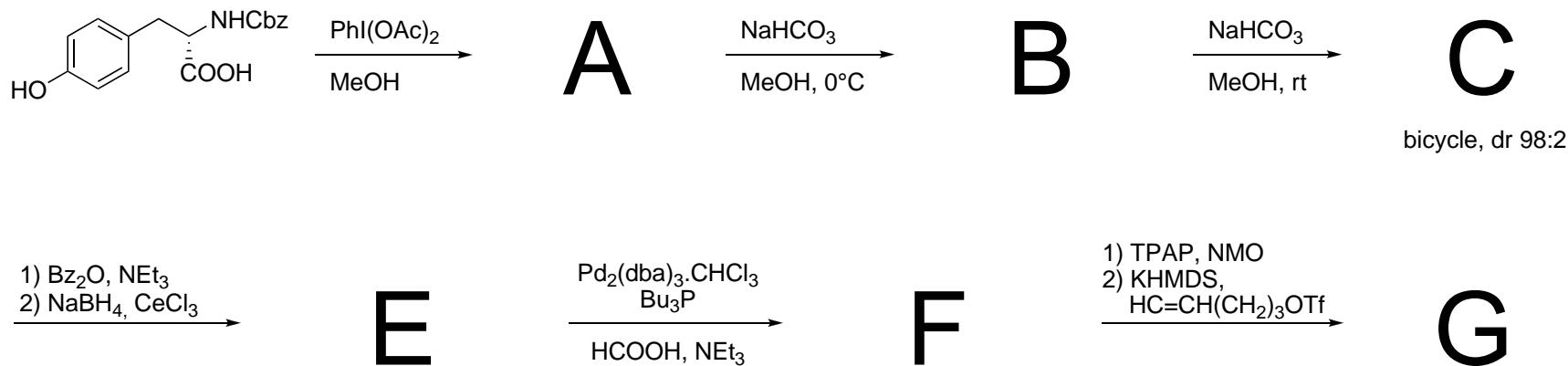


Syntheses of Stenine



Frankowski, K. J.; Golden, J. E.; Zeng, Y.; Lei, Y.; Aubé, J. *J. Am. Chem. Soc.* **2008**, *130*, 6018-6024.



1) NaBH_4 , CeCl_3
 2) $\text{MeC}(\text{OMe})_2\text{NMe}_2$
 130°C



1) AD-mix β ; NaIO_4
 2) NaBH_4
 3) TIPS-Cl, DMAP



1) LiOH , $\text{H}_2\text{O}/\text{THF}$
 2) PhPOCl_2 , NEt_3
 then PhSeH
 3) Bu_3SnH , AIBN



1) I_2
 2) Allyl-SnBu₃
 AIBN



1) LDA, HMPA
 Mel
 2) OsO_4 , NaIO_4



1) NaBH_4
 2) $\text{o-(NO}_2\text{)PhSeCN}$
 Bu_3P ; then H_2O_2



1) HF
 2) DMP, NaClO_2



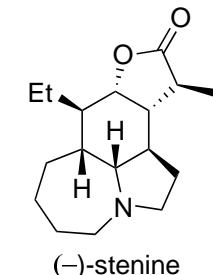
Pd(OH)_2 , H_2



$\text{Ph}-\overset{\text{O}}{\underset{\text{Ph'}}{\text{P}}}(\text{OC}_6\text{F}_5)$



1) Lawesson's
 reagent
 2) Raney-Ni



Wipf, P.; Kim, Y.; Goldstein, D. M. *J. Am. Chem. Soc.* **1995**, *117*, 11106-11112.
 Wipf, P.; Kim, Y. *Tetrahedron Lett.* **1992**, *33*, 5477-5480.