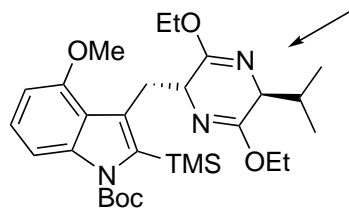


where does this come from ?



$\text{Pd}(\text{OAc})_2$, K_2CO_3 ,
 LiCl , DMF , 120°C



1) HCl , THF
2) NaOH , EtOH

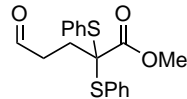
3) 0.4 equiv. triphosgene;
Benzyl alcohol, Et_2O , HCl



1) Br

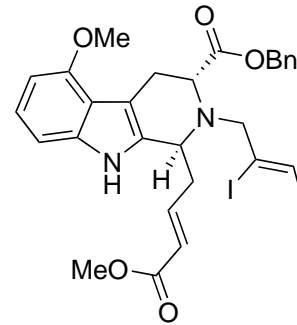


CS_2CO_3 ,
 THF

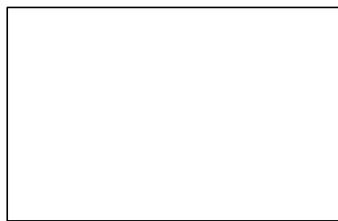


2) AcOH , DCM ; TFA , DCM

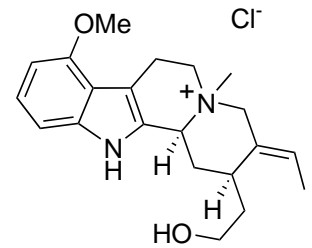
3) PhSH , cat. NaH , DME , 8h
4) *m*-CPBA, DCM , -78°C
5) Toluene, Na_2CO_3



1) 1.5 equiv. $\text{Ni}(\text{COD})_2$, Et_3N , MeCN
2) PdCl_2 , Et_3SiH , Et_3N toluene
3) ClCO_2 -*i*Bu, NMM , THF ; PhSeLi
4) BuSnH , AIBN , Ph-H



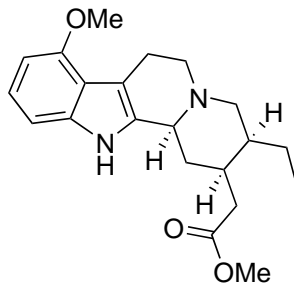
1) LAH
2) MeI ; AgCl ,
 MeOH



9-methoxy- N_6 -methyl-geissoschizol

A

Crabtree's catalyst
structure?, 1 atm H_2



1) $(\text{Boc})_2\text{O}$, DMAP
2) LDA ; methyl formate
2) HCl



1) $\text{CH}(\text{OMe})_3$, MeOH ,
 HCl

2) *t*-BuOK, DMF

mitragynine

