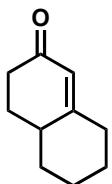


# Total Synthesis of Alkaloid GB18

*Synthesis and target annotation of the alkaloid GB 18, Shenvi et. al. , Nature, accelerated article preview (chemrxiv preprint server)*



1)  $\text{H}_2\text{O}_2$ , NaOH  
2) Pd/C,  $\text{H}_2$ , EtOAc/HFIP 1:1

**A**

3) TMSOTf,  $\text{Et}_3\text{N}$ , DCM  
4)  $\text{Pd}(\text{OAc})_2$ ,  $\text{O}_2$ , DMSO

**B**

5) **1**,  $\text{TiCl}_4$ , DCM, -78°C

**C**

HFIP, -40°C,  
then py

**G**

8) m-CPBA, DCM

**F**

7) **2**,  $\text{NiBr}_2$ :diglyme (2.2 eq), **L1** (2 eq),  
 $\text{Mn}(\text{dpm})_3$  (1.4 eq),  $\text{PhSiH}_3$ ,  
 $\text{Li}_2\text{CO}_3$  (1 eq),  $\text{NaI}$  (12 eq),  
DMA (0.033 M), 35°C

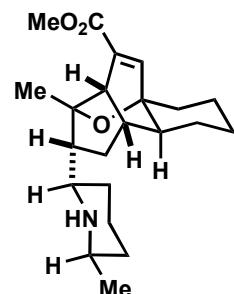
**E**

6) NIS, HFIP, 22°C

**D**

d. r. 11:1

9)  $\text{Rh}/\text{Al}_2\text{O}_3$ ,  
 $\text{H}_2$  (400 psi),  
DCM, 25°C,  
then  $\text{Zn}^0$



10)  $\text{N}_2\text{H}_4$ , EtOH  
11)  $\text{I}_2$ , THF, TMG  
12)  $\text{PdCl}_2(\text{PPh}_3)_2$ , CO, MeOH

**H**

