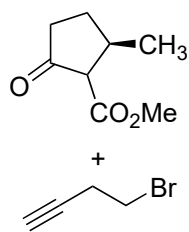


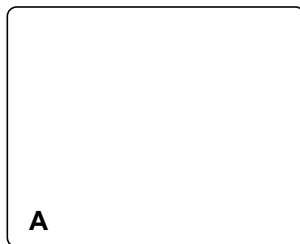


# Enantiocontrolled Total Synthesis of (-)-Retigeranic Acid A

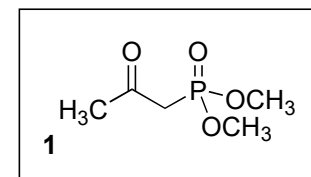
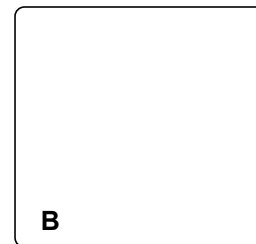
Xiaoming Chen, Weidong Yao, Hufeng Zheng, Hongyu Wang, Pan-Pan Zhou, Dao-Yong Zhu, Shao-Hua Wang  
*J. Am. Chem. Soc.* **2023**, *145*, 13549-13555



a)  $K_2CO_3$ , **61%**  
b) LiI, DMF, 120 °C  
**85%**, *dr* = 1:2.5  
c) DBU, **95%**, *dr* = 1:7  
Name of b)?

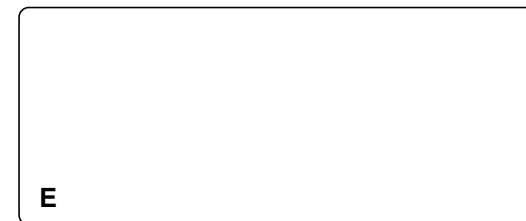


d) MOMPPH<sub>3</sub>Cl,  
KHMDS, **75%**  
e) PtCl<sub>2</sub> (10 mol%)  
**88%**  
Name of e)?

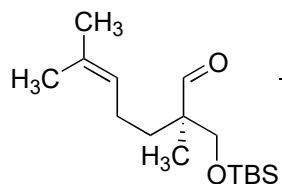
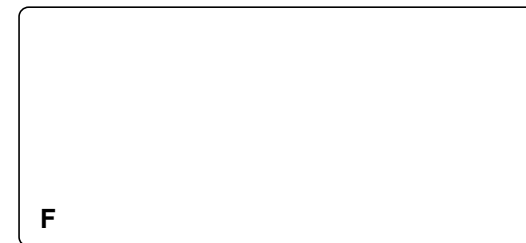


f) CrCl<sub>2</sub>, NiCl<sub>2</sub> Name of f)?  
g) DMP

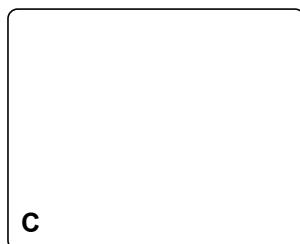
**53%** over two steps ↓



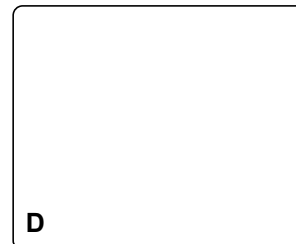
h) Fe(acac)<sub>3</sub>, PhSiH<sub>3</sub> ↓ **91%**, *dr* = 10:1



a) **1**, NaH, **90%**  
b) AlCl<sub>3</sub>, K<sub>2</sub>CO<sub>3</sub>  
**47%**, *dr* = 3:1

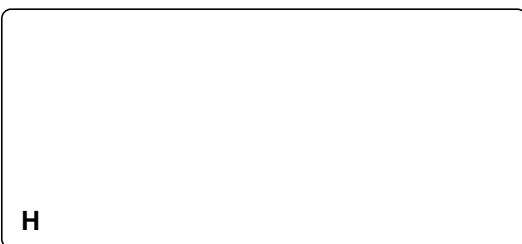
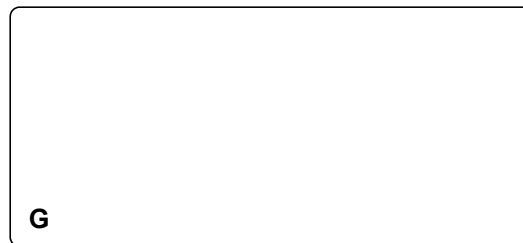


c') PtO<sub>2</sub>, H<sub>2</sub>,  
then CBr<sub>4</sub>,  
PPh<sub>3</sub>, **92%**  
d') LDA, CeCl<sub>3</sub>  
then PhNTf<sub>2</sub>  
**57%**



i) IBX, DMSO,  
100 °C, **70%**

j) *n*-BuLi, TMS-acetylene,  
then K<sub>2</sub>CO<sub>3</sub>, MeOH,  
then 1 M HCl  
k) Au(PPh<sub>3</sub>)OTf, H<sub>2</sub>O  
**67%** over two steps



l) TMSOTf, O<sub>3</sub>,  
then Pb(OAc)<sub>4</sub>, **74%**  
m) Pd/C, H<sub>2</sub>, 31 bar, 10 d  
**30%**  
*Finisch it!*<sup>TM</sup>

