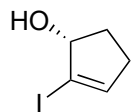
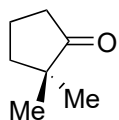
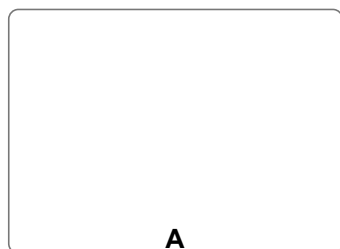


Enantioselective Total Syntheses of Grayanoid (–)-Mollfoliagenin A and (–)-Rhodomollein XXV

S.-F. Du, Y.-P. Zhang, Q.-L. Wu, H. Zhang, *J. Am. Chem. Soc.* **2026**, 148, 15, 15410–15416.



1-12



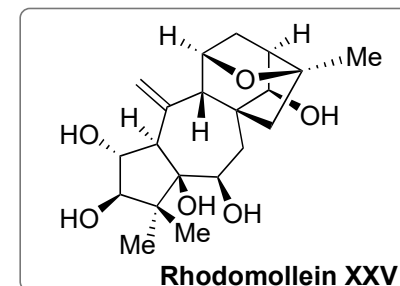
13-17



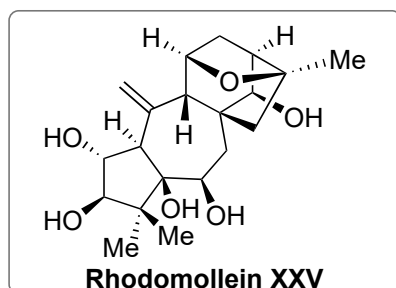
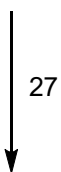
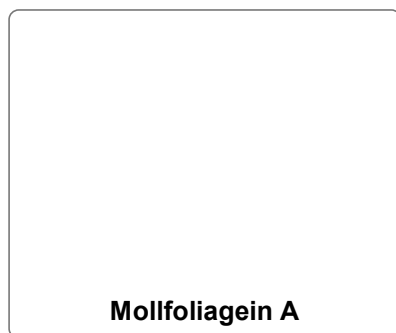
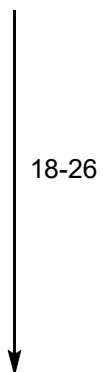
- 1) $\text{MeC(OMe)}_2\text{NMe}_2$, MW: 120 °C
- 2) LiHMDS, O_2 , HMPA, P(OEt)_3
- 3) TBSOTf, Et_3N
- 4) MeMgBr
- 5) Pd(OAc)_2 , $t\text{-Bu}_3\text{P}\cdot\text{HBF}_4$, PhOK
- 6) KHMDS, Comins' reagent
- 7) Pd(OAc)_2 , dppf, Et_3N , CO, MeOH
- 8) O_3 , then PPh_3 , then AIBME, TDM
- 9) KHMDS, Comins' reagent
- 10) MeMgBr, $\text{LaCl}_3\cdot 2\text{LiCl}$
- 11) DIBAL-H
- 12) IBX

- 13) NBS, TsOH
- 14) CaCO_3
- 15) MeMgBr, $\text{LaCl}_3\cdot 2\text{LiCl}$
- 16) PDC, Celite
- 17) $(\text{SnMe}_3)_2$, Pd(acac)_2 , PCy_3

1) Name of the reaction:



A + B



- 18) $\text{Pd}_2(\text{dba})_3 \cdot \text{CHCl}_3$, PCy_3 , $\text{Mo}(\text{CO})_6$, LiCl , CuCl
19) $\text{Co}(\text{acac})_2$, Ph_2SiH_2 , O_2 , TBHP, DBU,
then Ac_2O , Et_3N , 4-PPY
20) $\text{N}_2\text{H}_4 \cdot \text{HOAc}$, HFIP
21) NBS, BPO, CCl_4 , *then* Ag_2O
22) MeMgBr , *then* Ac_2O , Et_3N , 4-PPY
23) MsOH , H_2O
24) CNCO_2Me , DMAP
25) $\text{Pd}(\text{acac})_2$, *n*- Bu_3P , $(\text{HCOO})_2\text{Mg} \cdot 2\text{H}_2\text{O}$
then $\text{Et}_3\text{N} \cdot 3\text{HF}$
26) *m*-CPBA

27) PPTS, *t*-BuOH, *then* NaOH

18) Name of all 3 reactions:

19) Name of the reaction:

20) Name of the reaction: