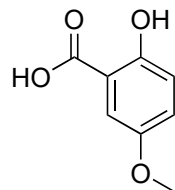
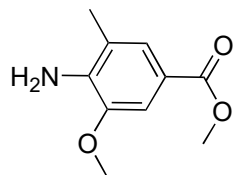
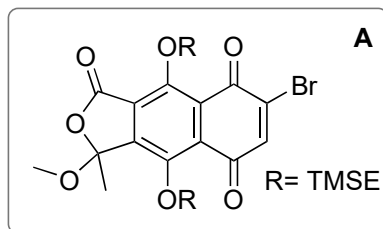


Total Synthesis of Allocyclinone A via Late-Stage Halogen Swapping

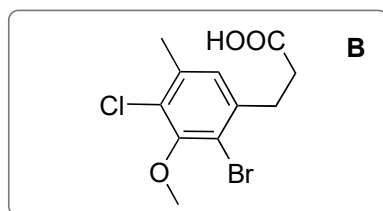
T.-H. Chao, E. B. Barrois, C. W. Johnston, H. Renata, "Total Synthesis of Allocyclinone A via Late-Stage Halogen Swapping" Angew. Chem. Int. Ed. n.d., n/a, e6162176.



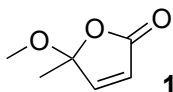
1-9



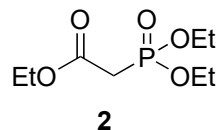
10-15



- 1) BnBr, K₂CO₃ then NaOH, H₂O
- 2) Me₂NH·HCl, Et₃N, EDCI
- 3) *n*-BuLi, TMEDA then DMF
- 4) HCl/AcOH, PhSH, PTSA
- 5) LiHMDS, **1**
- 6) TMSEOH, PPh₃, DIAD
- 7) H₂, Pd/C
- 8) Py·HBr₃
- 9) TBAB, oxone

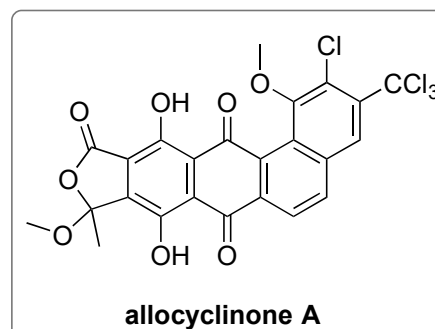


- 10) NaNO₂, CuCl, HCl
- 11) LiAlH₄
- 12) DMP
- 13) *n*-BuLi, *N,N,N'*-trimethylethylenediamine, 1,2-dibromotetrafluoroethane
- 14) NaH, **2**
- 15) NHNHTs, NaOAc then NaOH



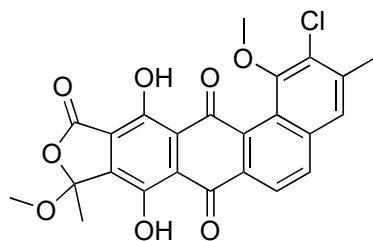
- | | |
|--------------------------|--------------------|
| 5) Name of the reaction? | Hauser annulation |
| 6) Name of the reaction? | Mitsunobu reaction |

- 14) Name of the reaction?
Horner-Wadsworth-Emmons
(HWE) olefination

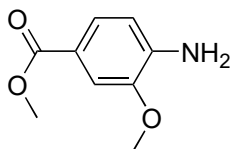


A+B

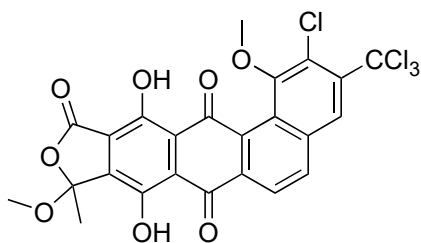
16-18



allocyclinone B



19-28



allocyclinone A

16) AgNO₃, (NH₄)₂S₂O₈
17) Pd₂dba₃, P(*o*-tolyl)₃, CuTc,
(*n*Bu₃Sn)₂
18) TBAF

19) TBHP, NaSO₂CF₃, Cu(OTf)₂
20) NaNO₂, CuCl, HCl
21) LiAlH₄
22) DMP
23) *n*-BuLi, *N,N,N'*-
trimethylethylenediamine,
dibromotetrafluoroethane
24) NaH, **2**
25) NHNTs, NaOAc then NaOH
26) AgNO₃, (NH₄)₂S₂O₈, **A**
27) Pd₂dba₃, P(*o*-tolyl)₃, CuTc,
(*n*Bu₃Sn)₂ then TBAF
28) AlCl₃