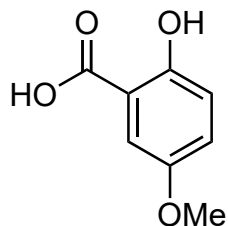


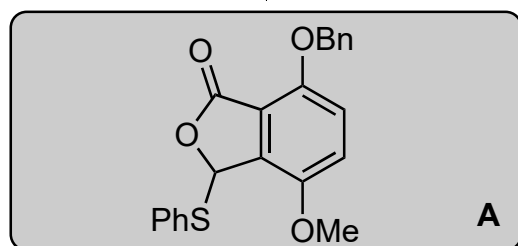
Total Synthesis of Allocyclinone A via Late-Stage Halogen Swapping

Chao, C.-H.; Barrois, E. B.; Johnston, C. W.; Renata, H.

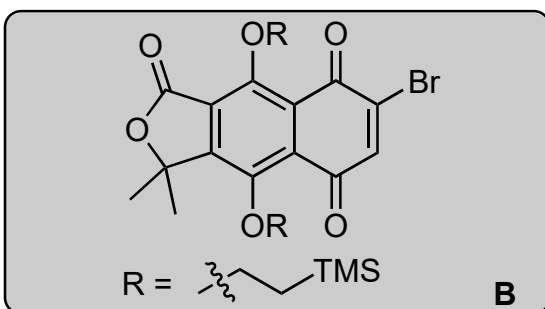
Angew. Chem. Int. Ed. **2026**, 65, e6162176. DOI: 10.1002/anie.6162176



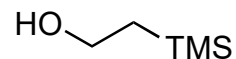
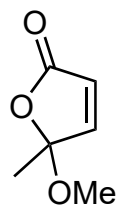
1-4



5-9



- 1) BnBr (3 equiv.), K₂CO₃ *then* 40% NaOH (aq.)
- 2) Me₂NH • HCl, Et₃N, EDCI
- 3) *n*-BuLi, TMEDA *then* DMF
- 4) HCl, AcOH, workup *then* PhSH, PTSA



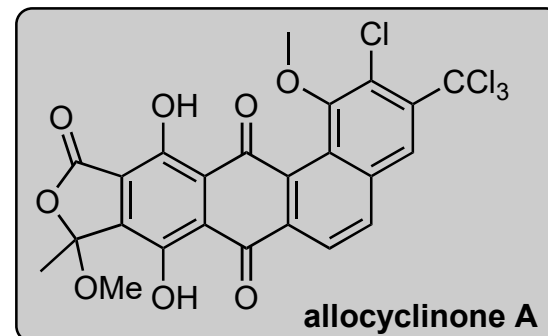
- 5) LiHMDS *then* **1**
- 6) TMSEOH (2.2 equiv.), PPh₃, DIAD
- 7) H₂, Pd
- 8) Py • HBr₃, pyridine
- 9) TBAB (cat.), oxone

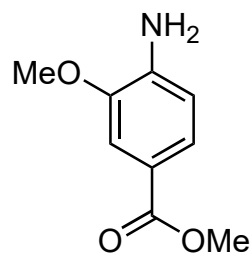
- 3) Which group is the strongest directing group?

benzamide

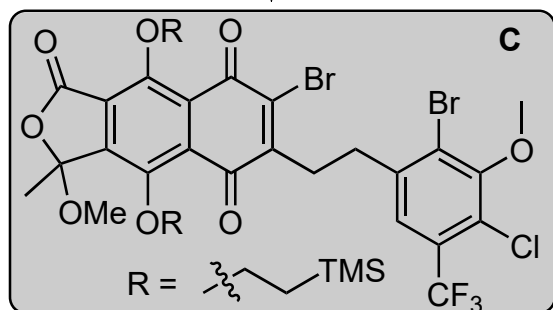
- 5) New ring formed. Reaction name?

Hauser annulation

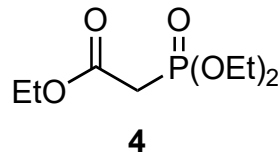
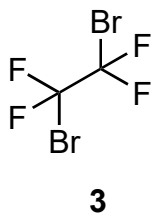
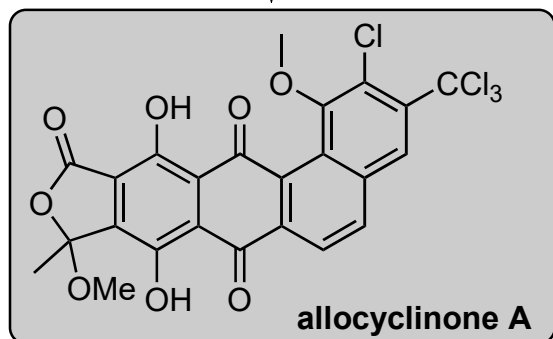




10-18



19-21



- 10) TBHP (7 equiv.), NaSO₂CF₃, Cu(OTf)₂
- 11) NaNO₂, CuCl, HCl (aq.)
- 12) LiAlH₄
- 13) DMP
- 14) *n*-BuLi, MeNHCH₂CH₂NMe₂ then *n*-BuLi, **3**
- 15) NaH, **4**
- 16) NH₂NHTs, NaOAc
- 17) NaOH (aq.)
- 18) AgNO₃, **B**, (NH₄)₂S₂O₈

10) HINT: Generates •CF₃ equivalent.

14) HINT: **3** is a Br⁺ equivalent.

16) Name of active reductant?

Diimide or diazene

18) Ag⁺ catalyzes decarboxylation.

Reaction name? Minisci

- 19) Pd₂dba₃, P(o-toyl)₃, CuTC, (*n*-Bu₃Sn)₂
- 20) TBAF
- 21) AlCl₃

19) HINT: Stille-Kelly conditions

20) HINT: Spontaneous aromatization occurs after TBAF step.