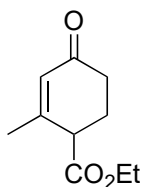
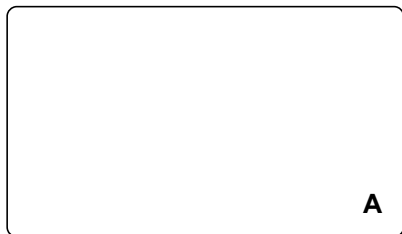


Total Synthesis of (±)-Chloranthalactone A

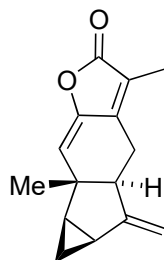
G. Yue, L. Yang, C. Yuan, X. Jiang, B. Liu, *Org. Lett.* **2011**, *13*, 5406–5408



1-6



7-12



Chloranthalactone A

- 1) vinylMgBr, CuBr • Me₂S
- 2) PTSA, ethylene glycol
- 3) HNMe(OMe) • HCl, *n*-BuLi
- 4) *n*-BuSn₃CH₂OMOM, *n*-BuLi
- 5) CH₂Br₂, *n*-BuLi
- 6) LTMP

- 7) aq. HCl
- 8) (imidazolyl)₂C=S
- 9) P(OMe)₃
- 10) ethyl pyruvate, LDA, ZnCl₂
- 11) PTSA, Ac₂O
- 12) DBU

Name of the starting material how would you make it? (at least 2 synthetic routes)

step 5) Name the reaction, name an alternative reaction

keystep 6) Name and classify the reaction, draw the transition state

step 8/9: Name the reaction and explain the mechanism, alternative conditions for same modification

which famous 8-membered ring can be synthesized by this method?