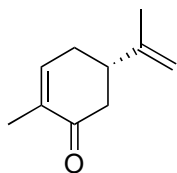
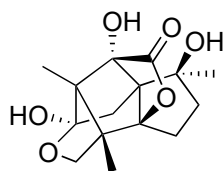


Total Synthesis of (–)-Illisimonin A Enabled by Pattern Recognition and Olefin Transposition

B. Xu, Z. Zhang, M. Dai, *J. Am. Chem. Soc.* **2025**, 147, 21, 17592–17597.

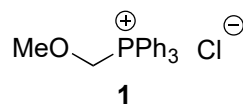


1–16



(–)-Illisimonin A

- 1) allylbromide, LDA, DMPU
- 2) Grubbs II *then* DBU
- 3) H₂O₂, NaOH
- 4) **1**, *t*-BuOK
- 5) *t*-BuOK, MeI, THF/DMF *then* NaBH₄
- 6) Crabtree cat.



- 7) O₂, *hν* (427 nm), TPP
then PMe₃, Ac₂O, DMAP, Et₃N
- 8) KHMDS, TMSCl
- 9) Pd(OAc)₂, O₂, NaOAc, DMSO
- 10) *hν* (370 nm) Na₄W₁₀O₃₂ (NaDT), TripSH
- 11) Co(acac)₂, O₂, PhSiH₃ *then* toluene, 140 °C
- 12) Ag₂O, TBAI, BnBr
- 13) LiHMDS, MoOPH
- 14) CrO₃, H₂SO₄
- 15) TBD
- 16) Pd/C, H₂

1) Name of the starting substance:

2) Structure of Grubbs II:

6) Structure of Crabtree cat.:

8) Name of the reaction:

11) Name of the reaction: