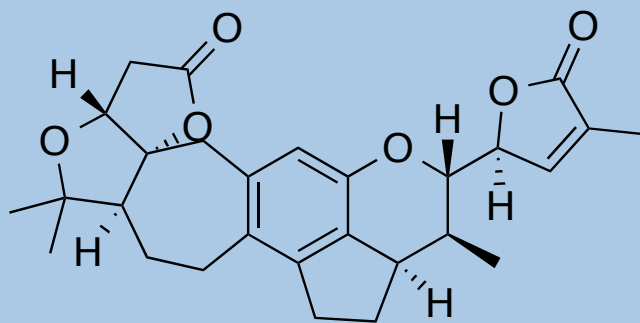


Total synthesis of (+)-Rubriflordilactone A

Goh, S. S.; Chaubet, G.; Gockel, B.; Cordonnier, M.-C. A.; Baars, H.; Phillips, A. W.; Anderson, E. A. *Angew. Chem. Int. ed.* **2015 ASAP**

DOI : 10.1002/anie.201506366

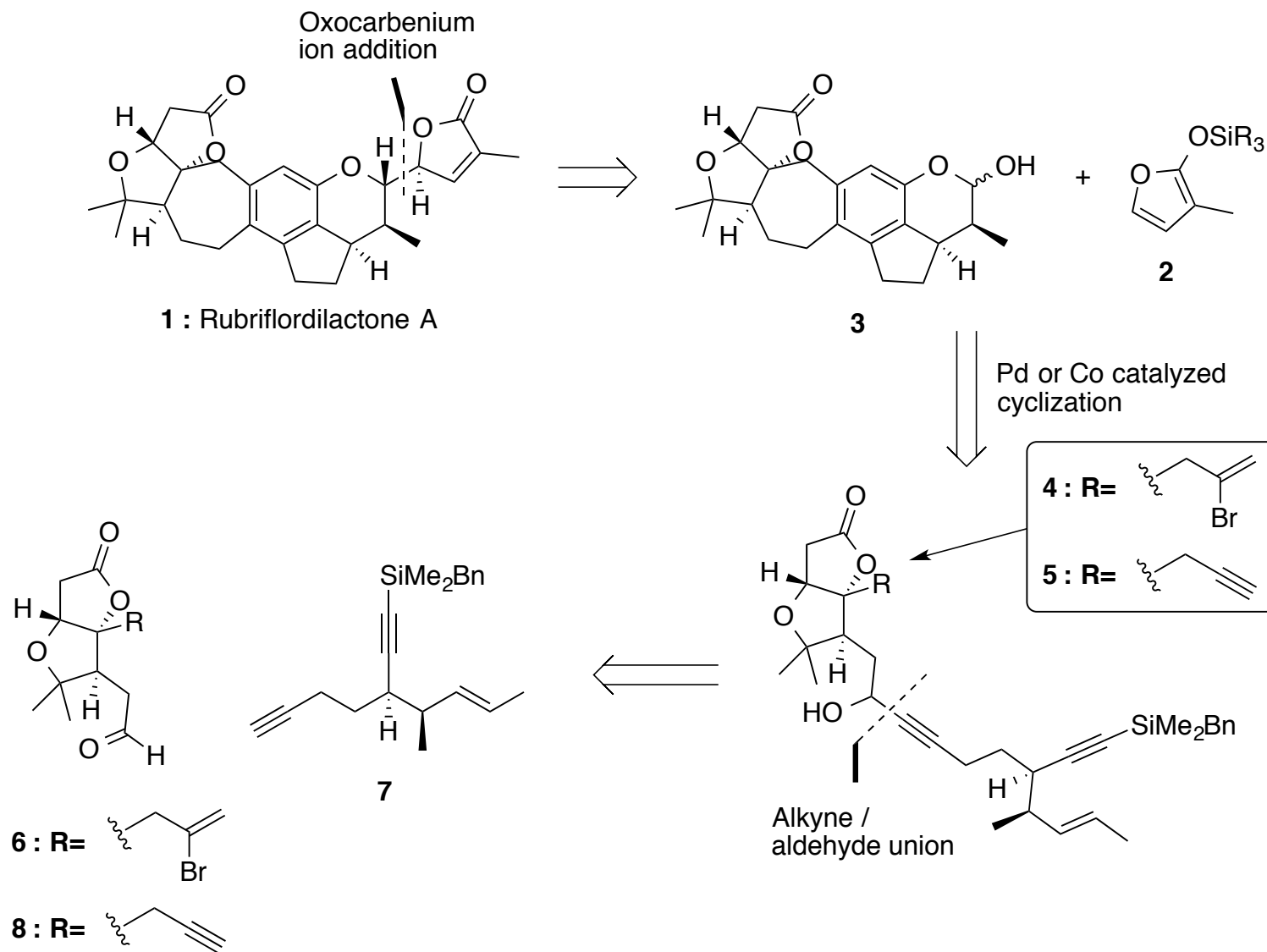


Introduction

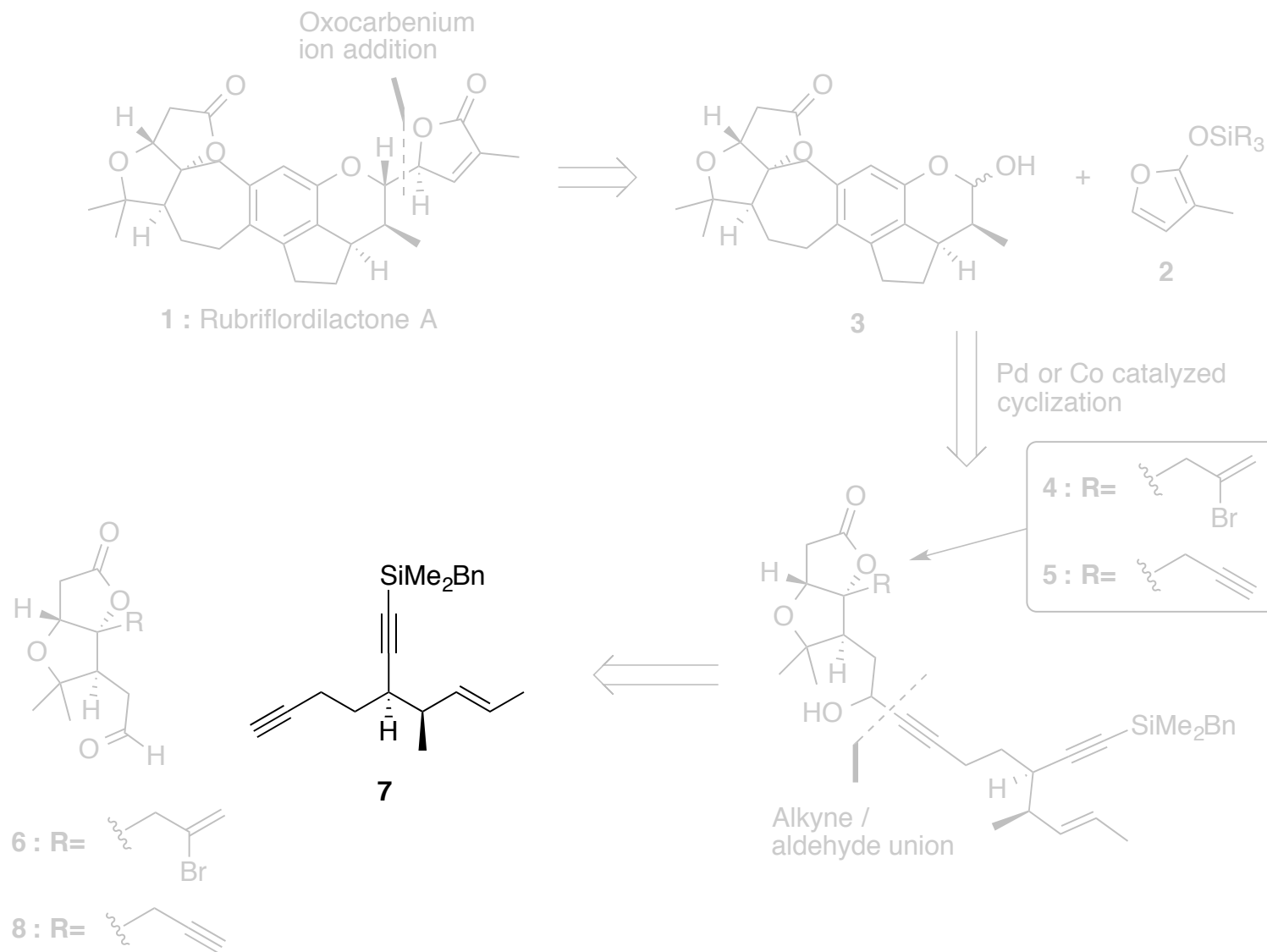
- > Nortriterpenoid Family
- > Extracted from *Schisandra rubriflora* in 2006 by Xiao et al.
- > First synthesis by Li et al. in 2014
- > Weak anti-HIV activity



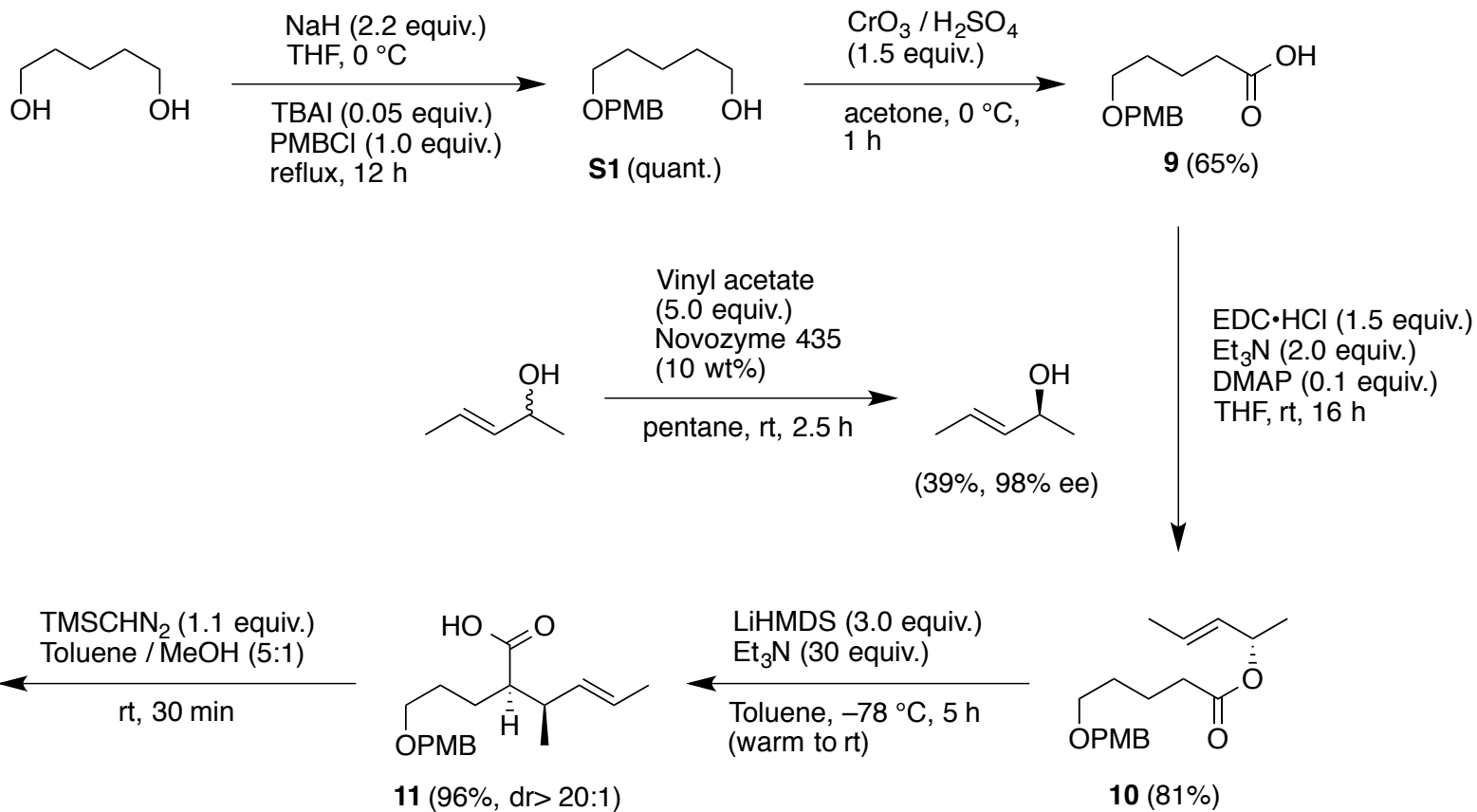
Retrosynthetic Approach



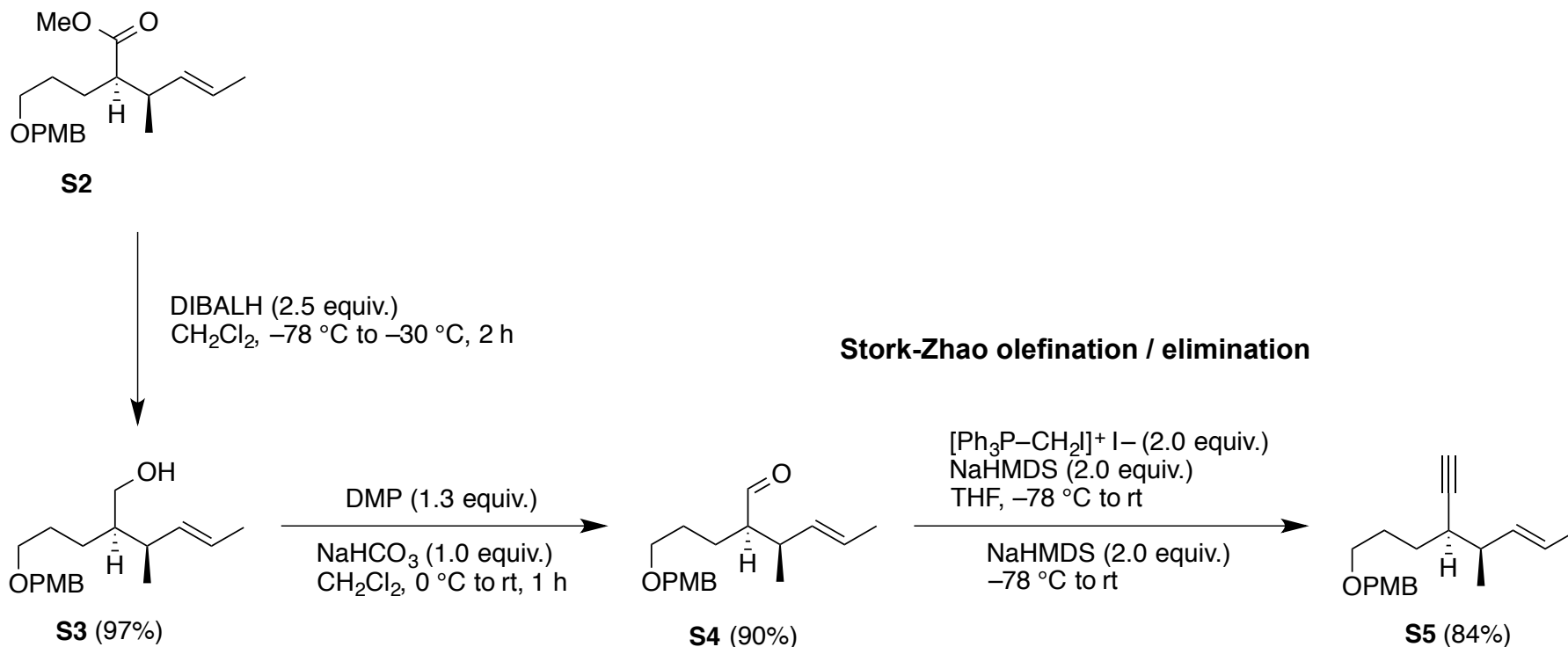
Preparation of Fragment 7



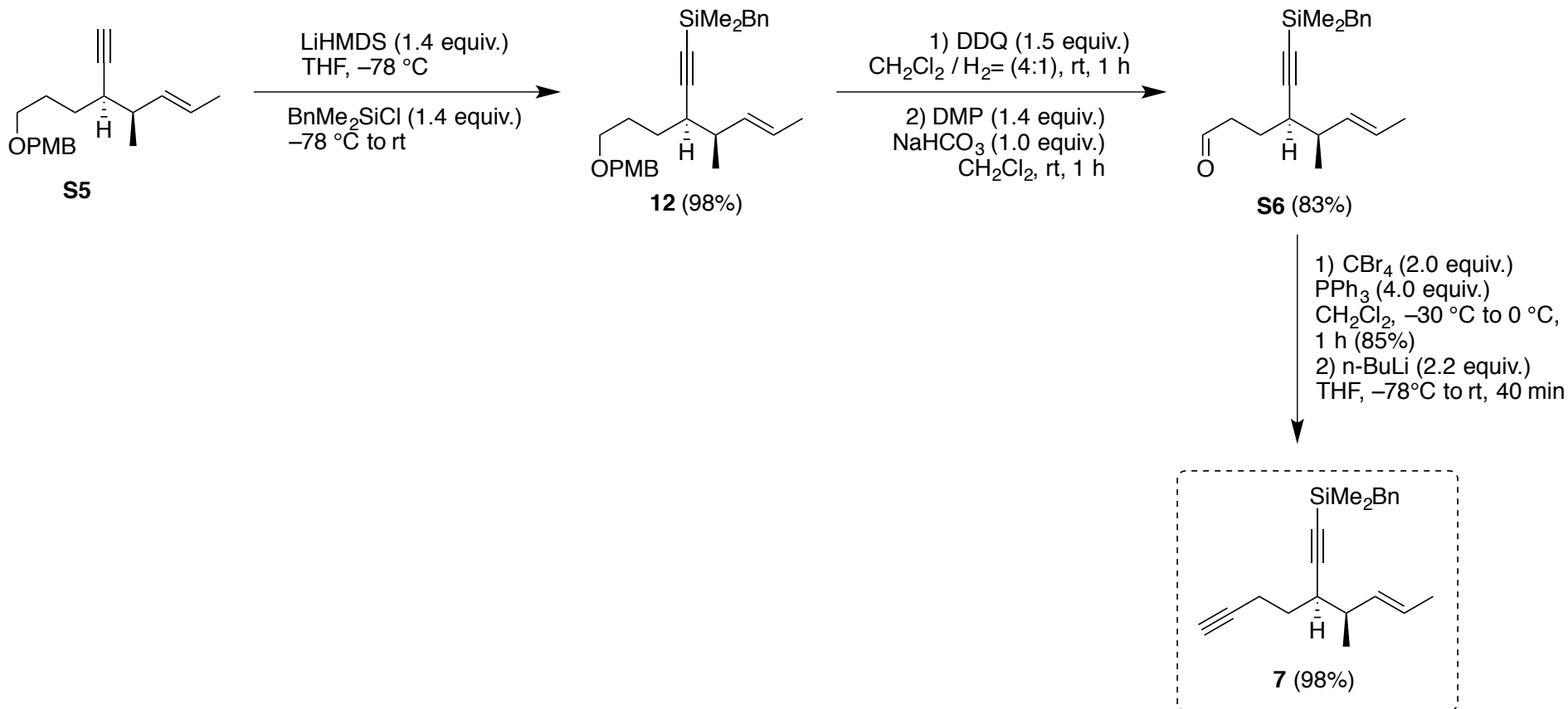
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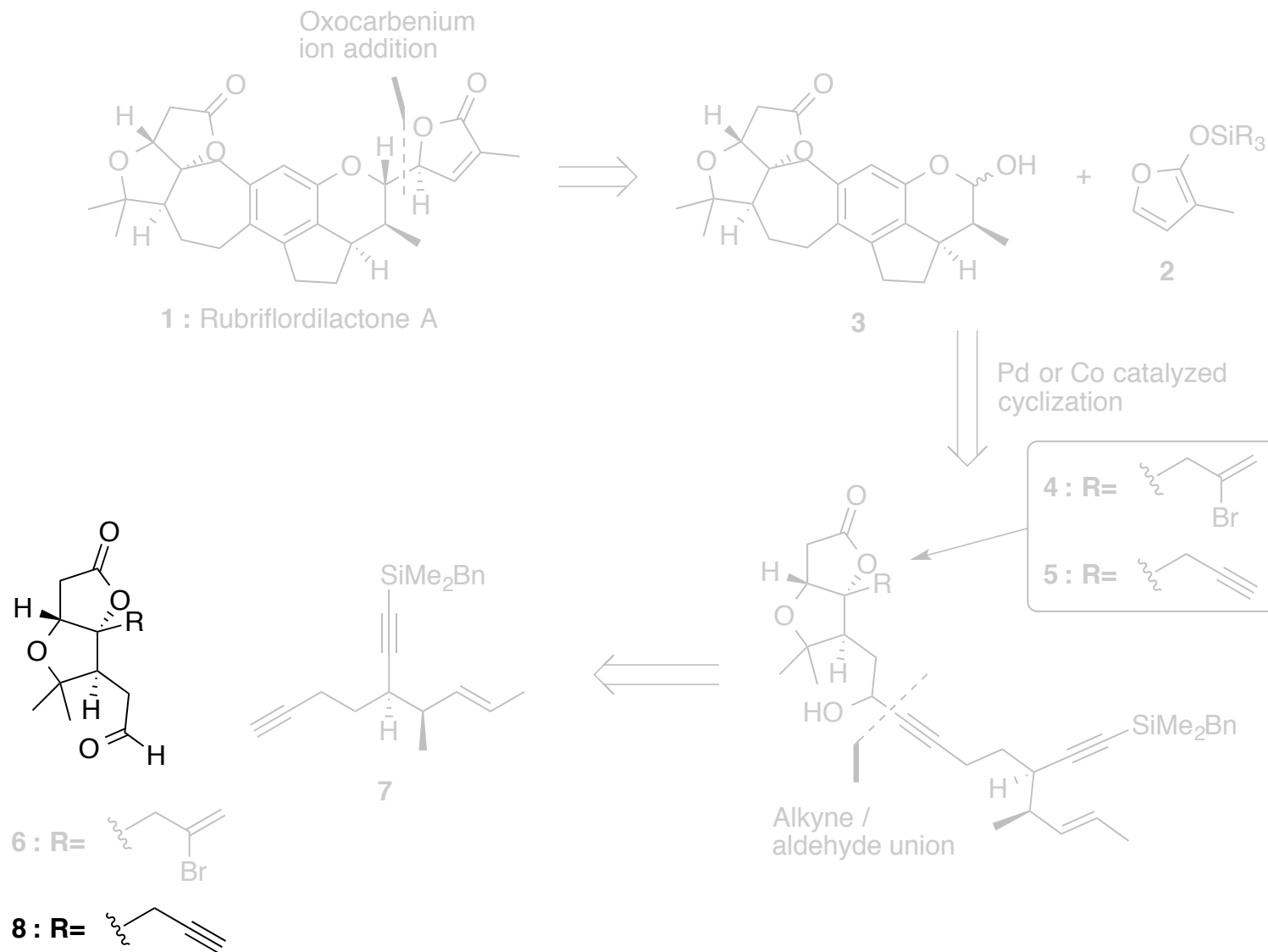
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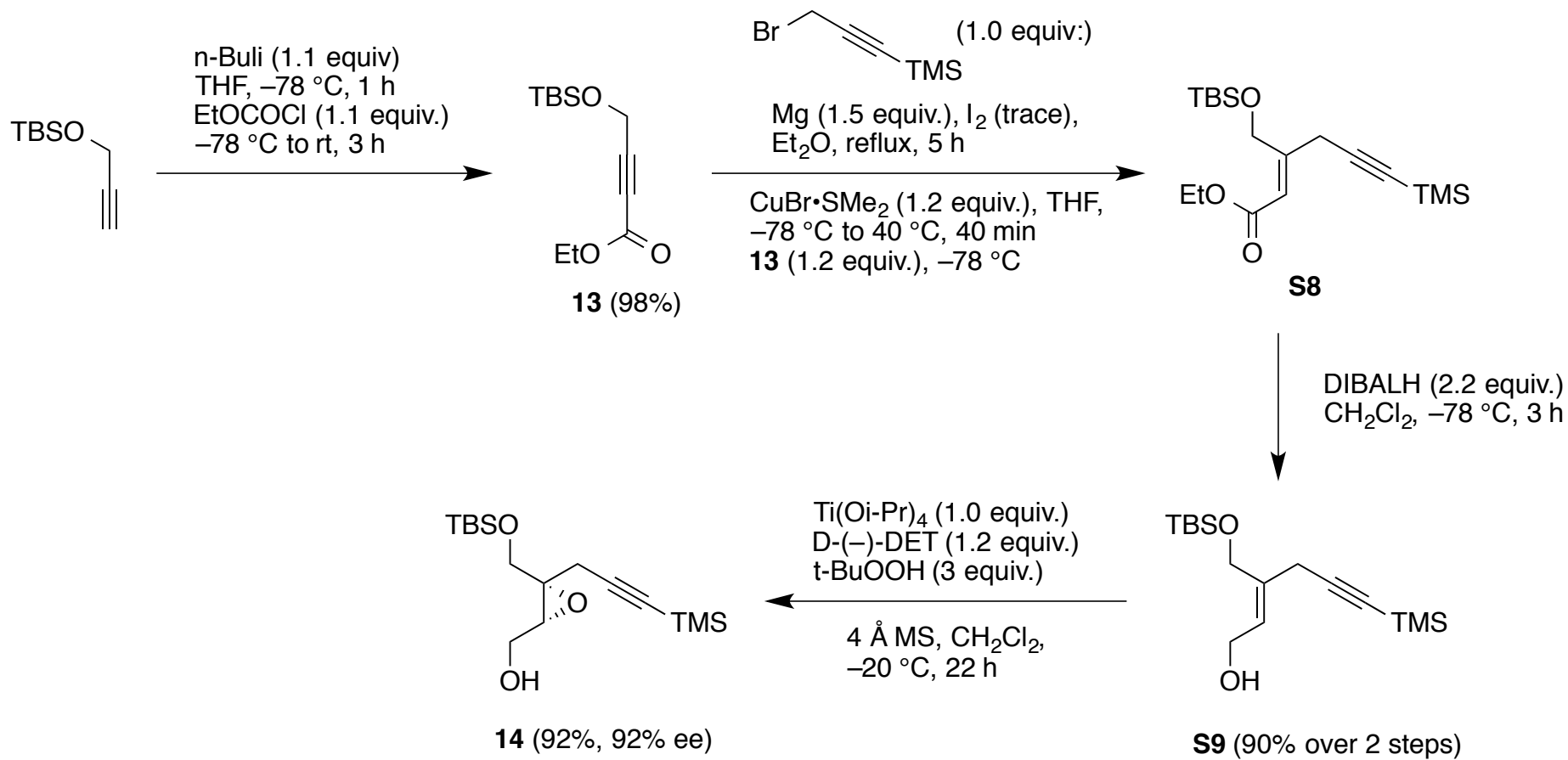
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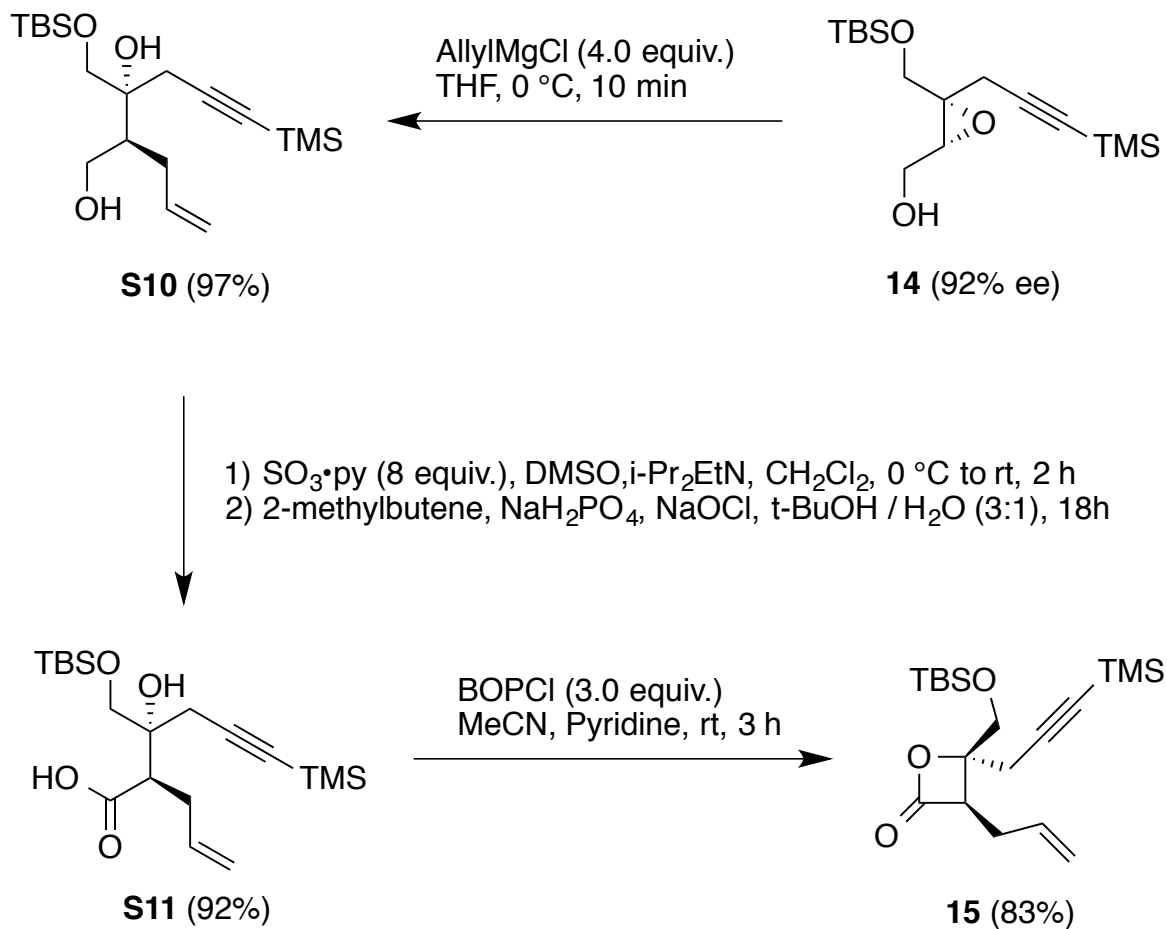
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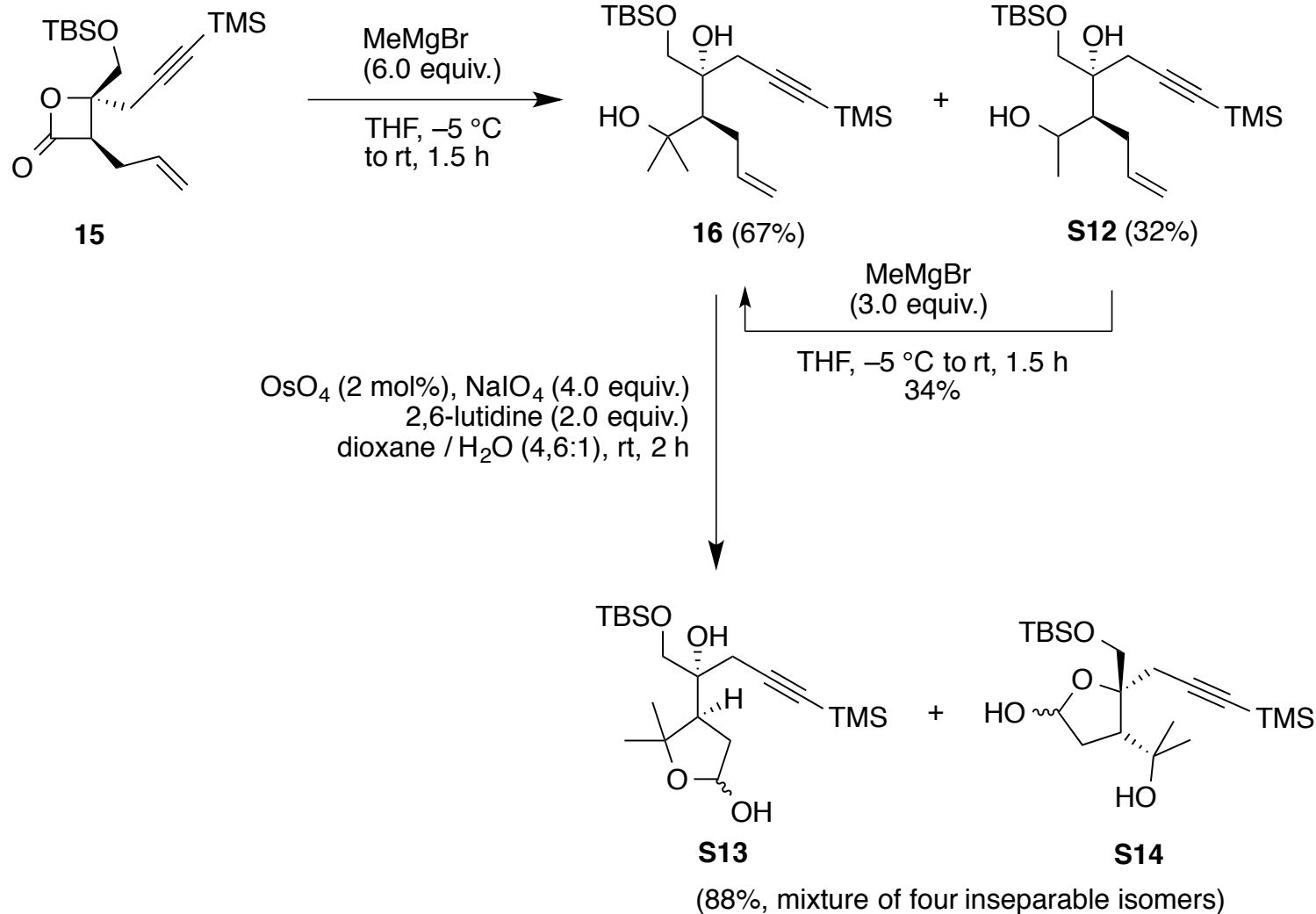
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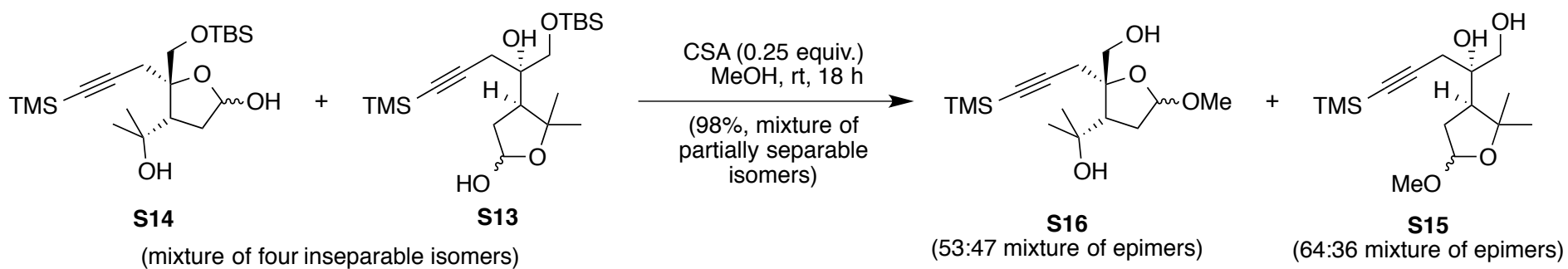
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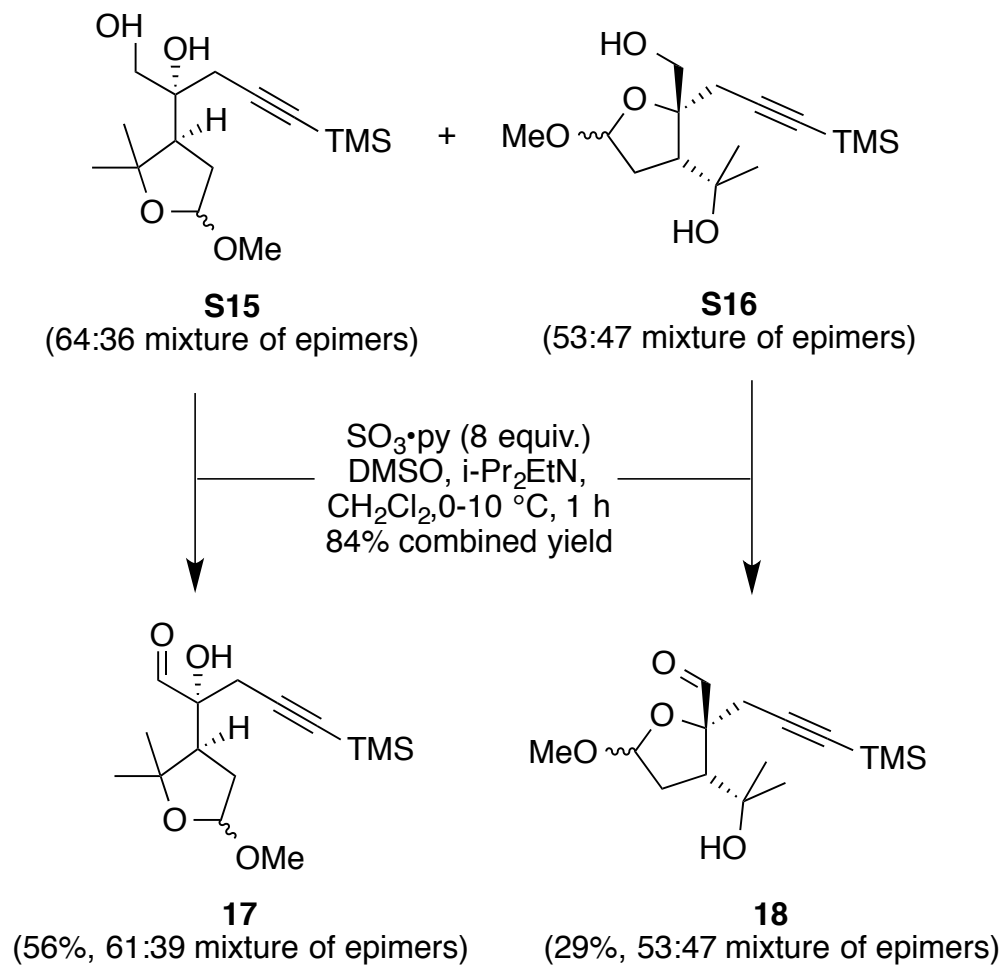
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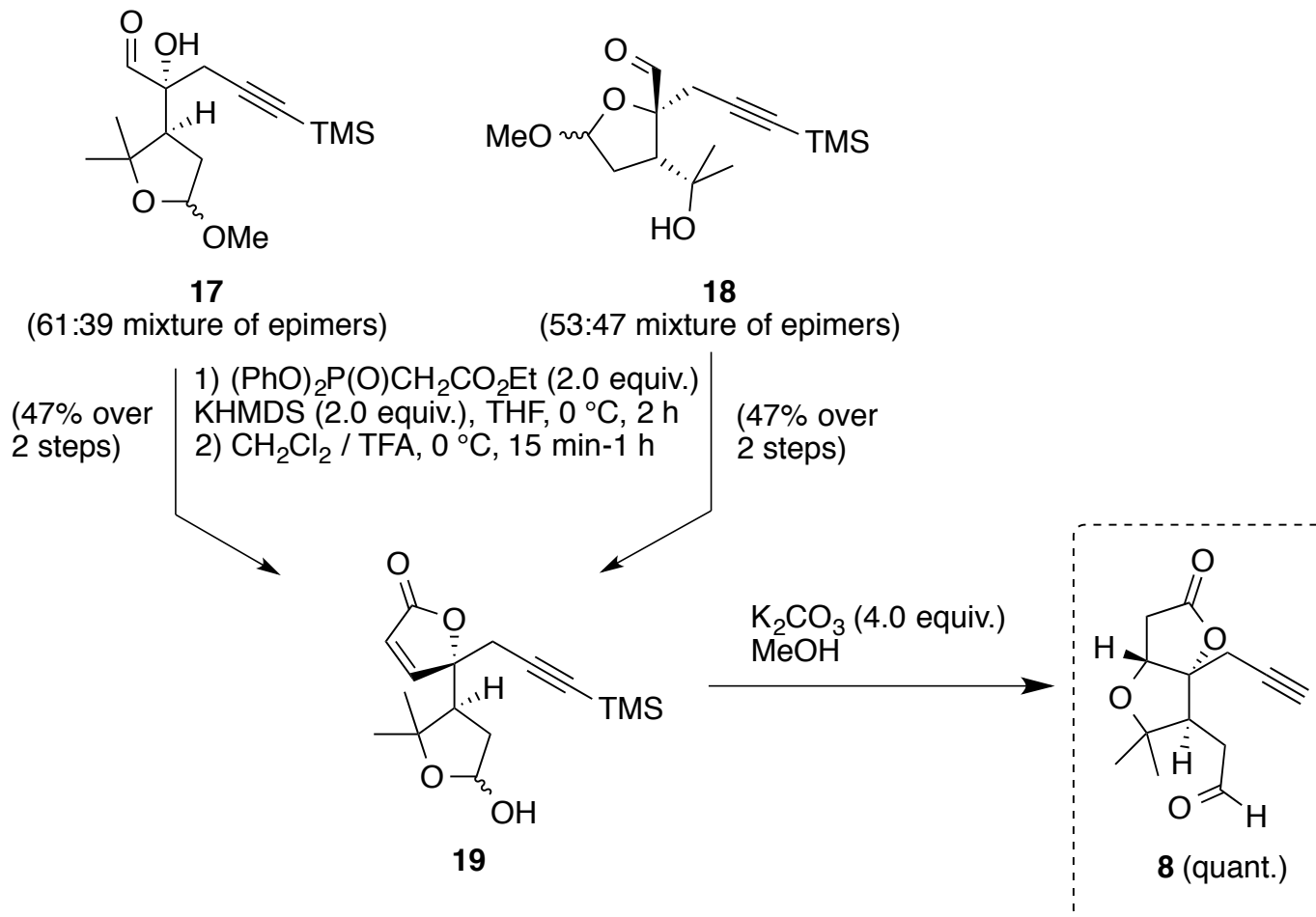
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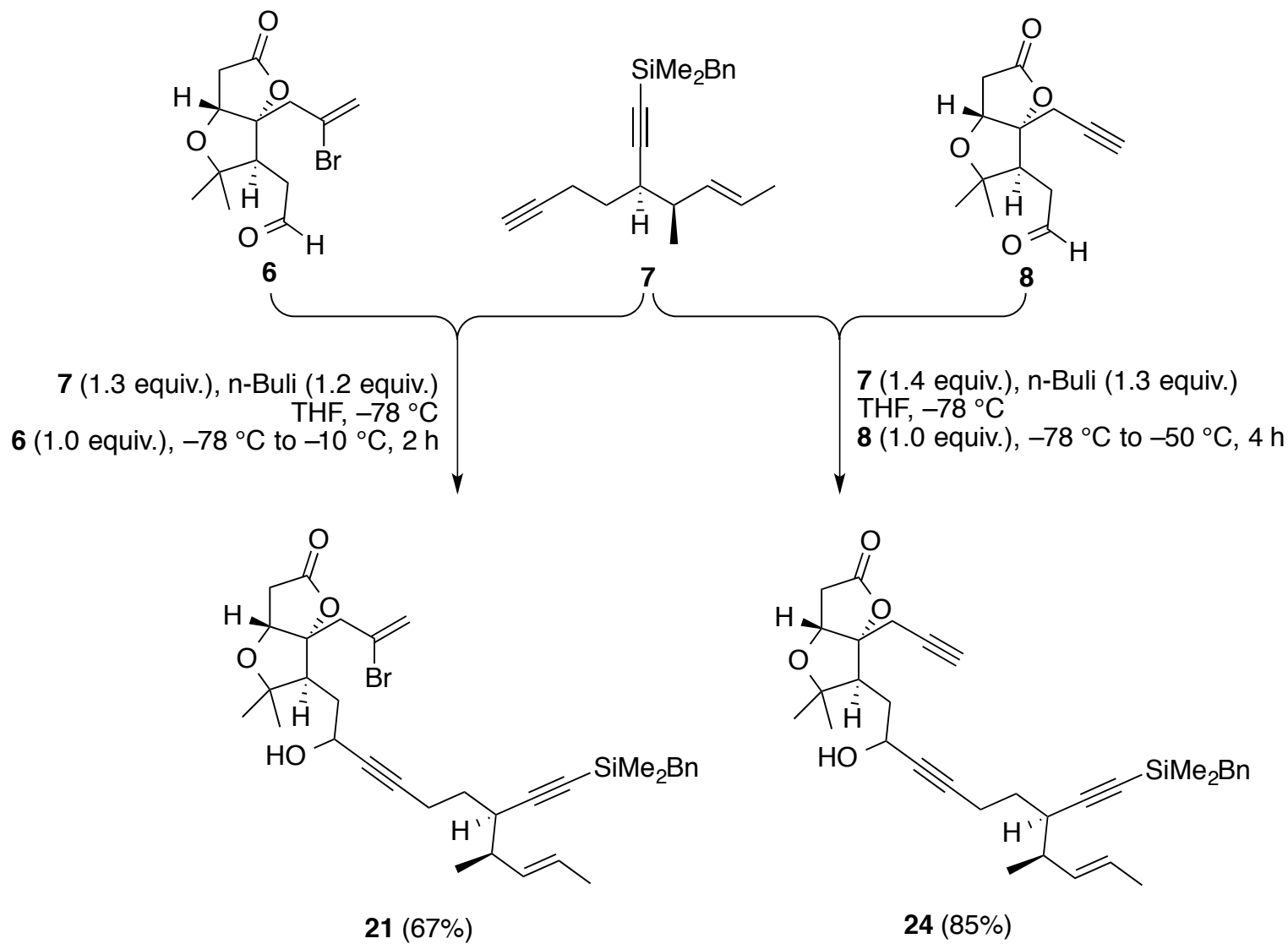
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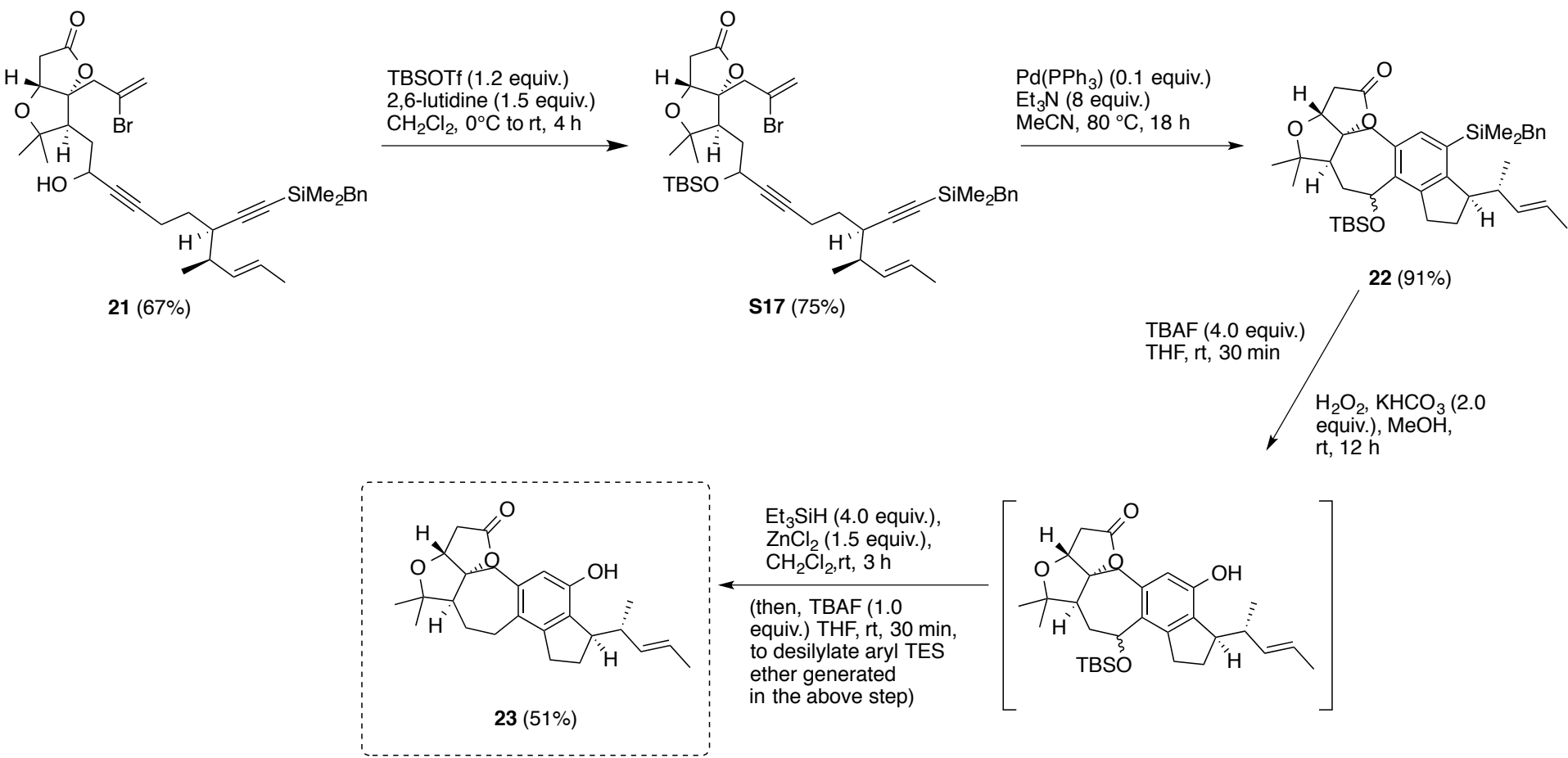
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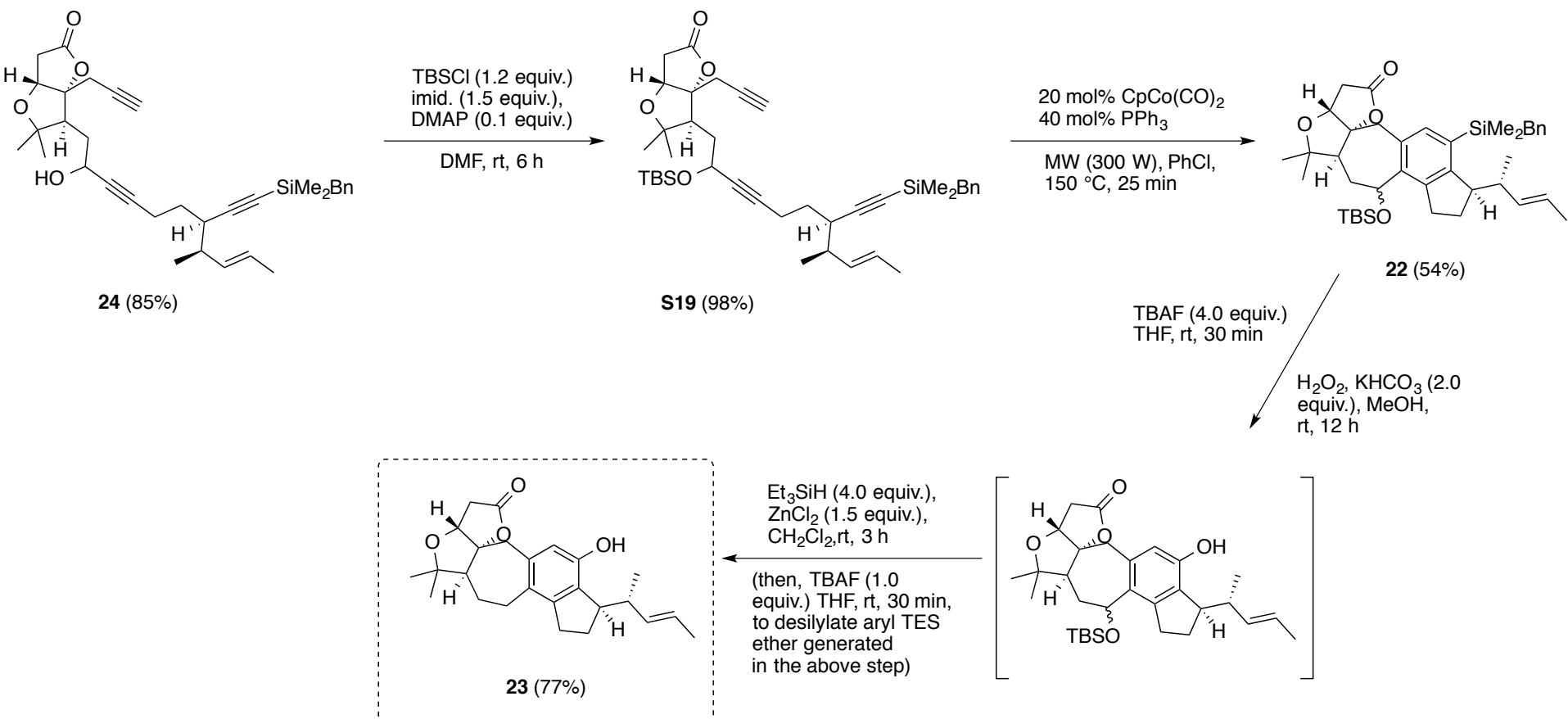
Two Different Strategies



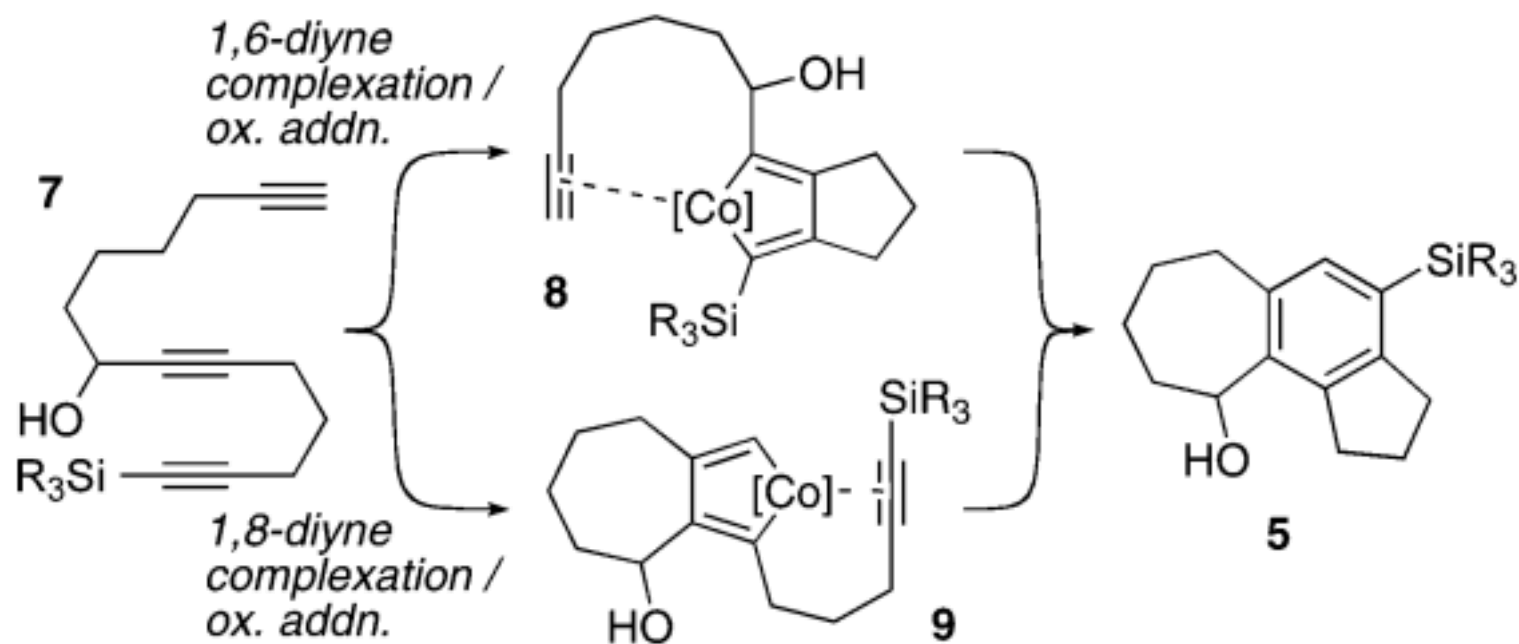
Palladium Catalyzed Cyclization



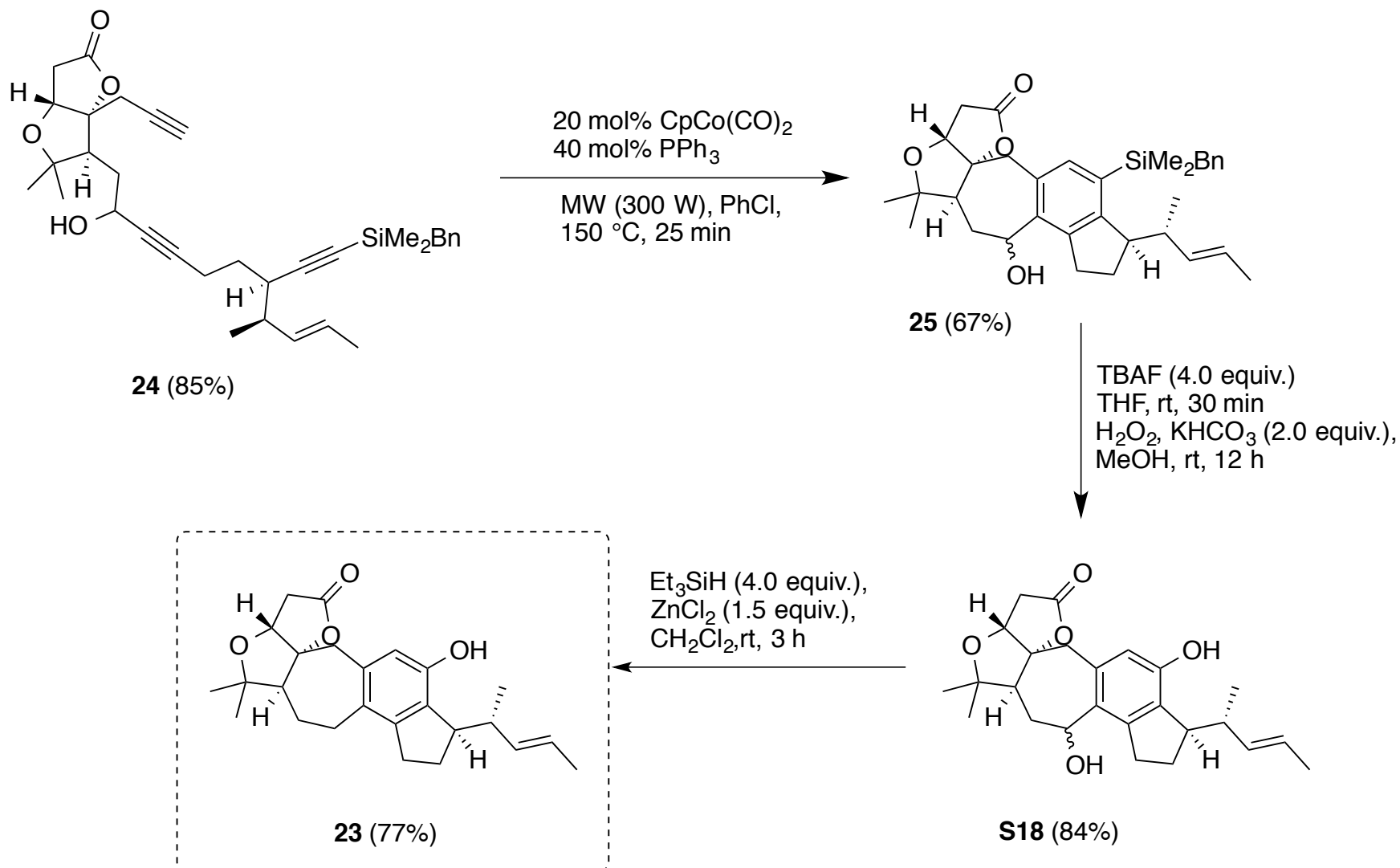
Cobalt Catalyzed Cyclization



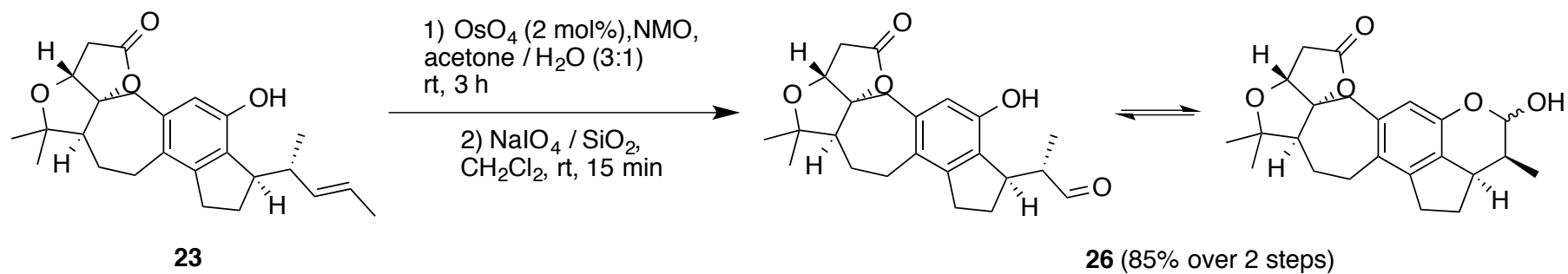
Cobalt Catalyzed Cyclization



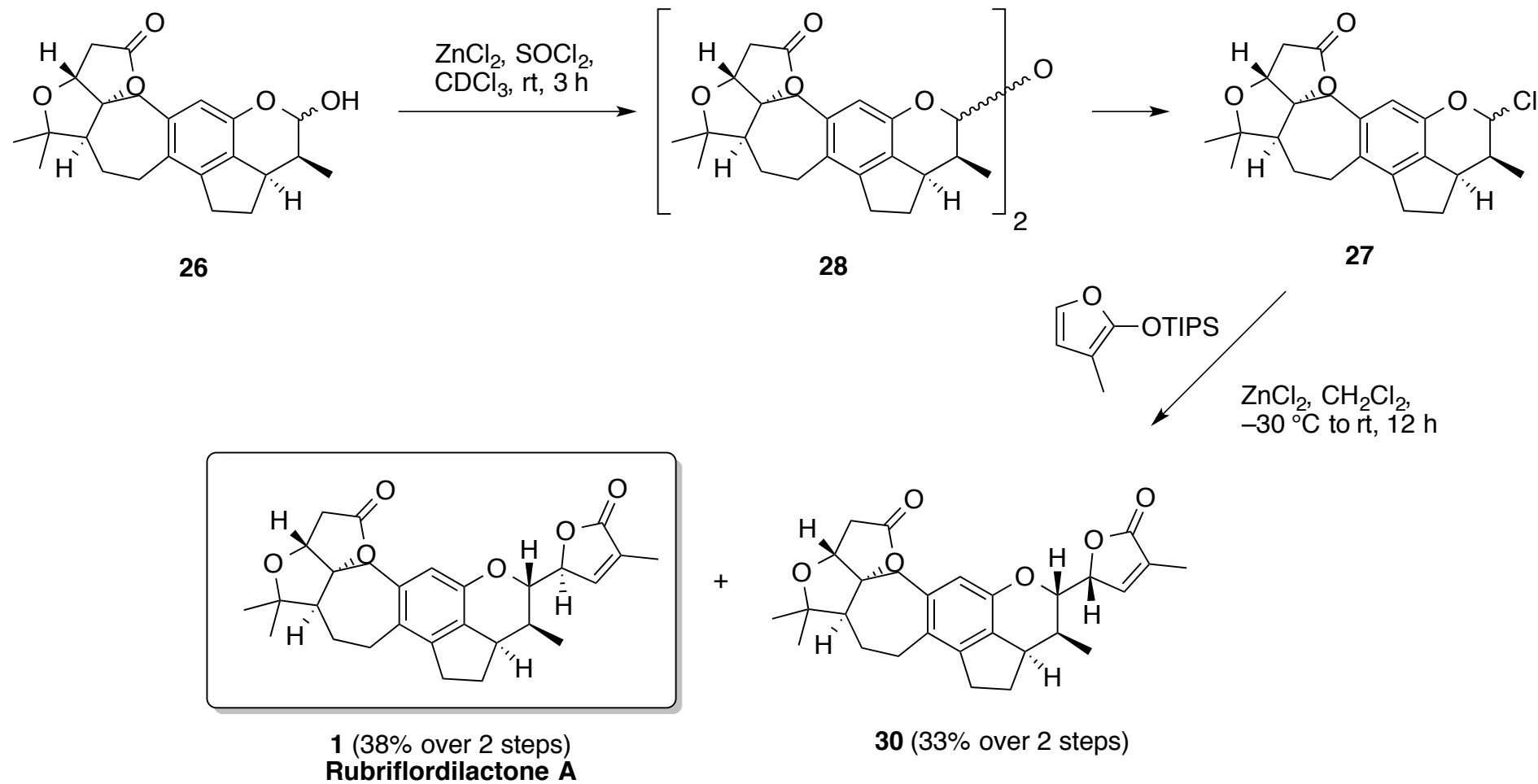
Cobalt Catalyzed Cyclization



End Game



End Game



Conclusion

- > Enantioselective synthesis of Rubriflordilactone A
- > Two similar strategies Pd and Co
- > Key Step : Palladium or Cobalt catalyzed Tricyclization
- > Unnatural enantiomer

Thank you for your attention