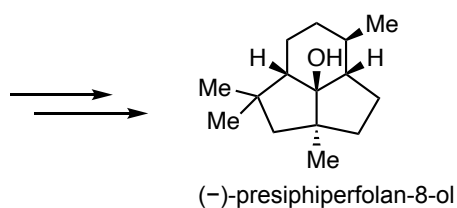
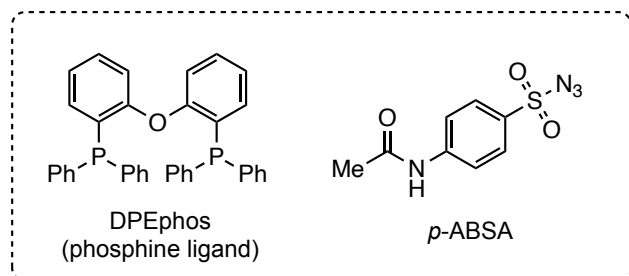
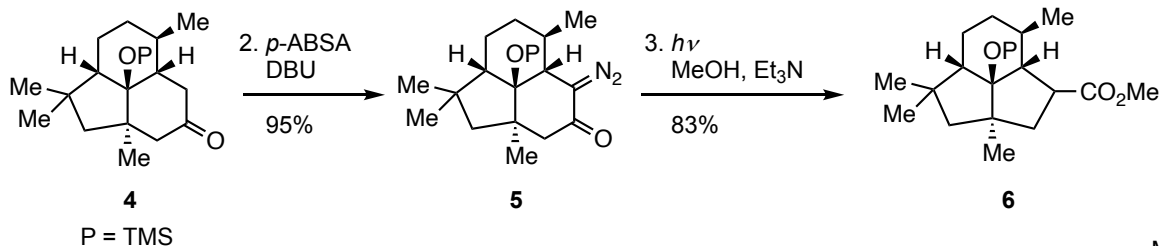
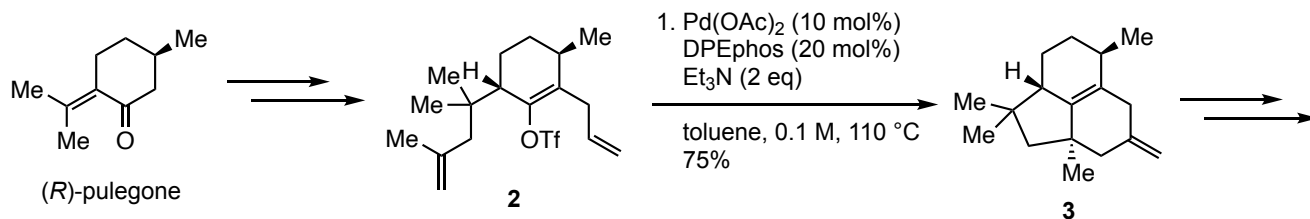


Q1. Plan a synthesis of **2** from (*R*)-pulegone.

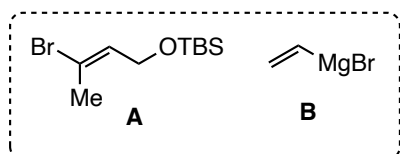
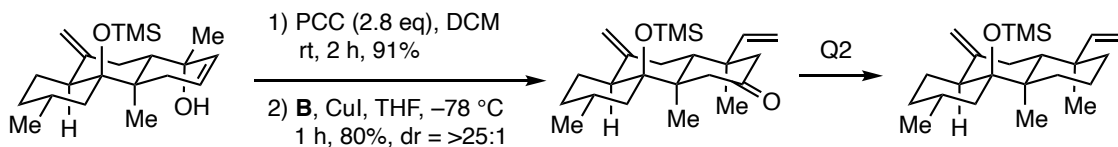
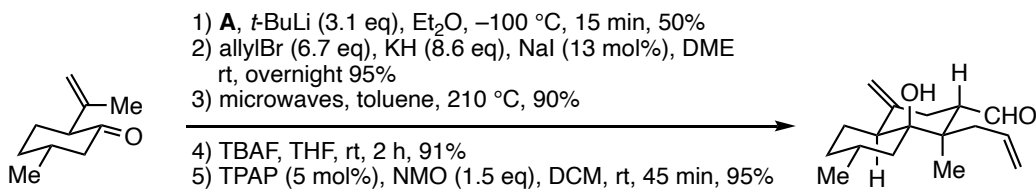
Q2. Propose reasonable allow-pushing mechanisms for the following transformations.(1~3).



Hu, P. and Snyder, S. A.*
J. Am. Chem. Soc., **2017**, 139, 5007.

Q1. Propose the possible reaction mechanism

Q2. Propose the reasonable synthetic route



E. L. O. Sauer and L. Barriault* *et al. Org. Lett.* **2004**, 6, 3329–3332