

M.Sc. Semester-IV
Core Course-9 (CC-9)
Synthetic Organic Chemistry



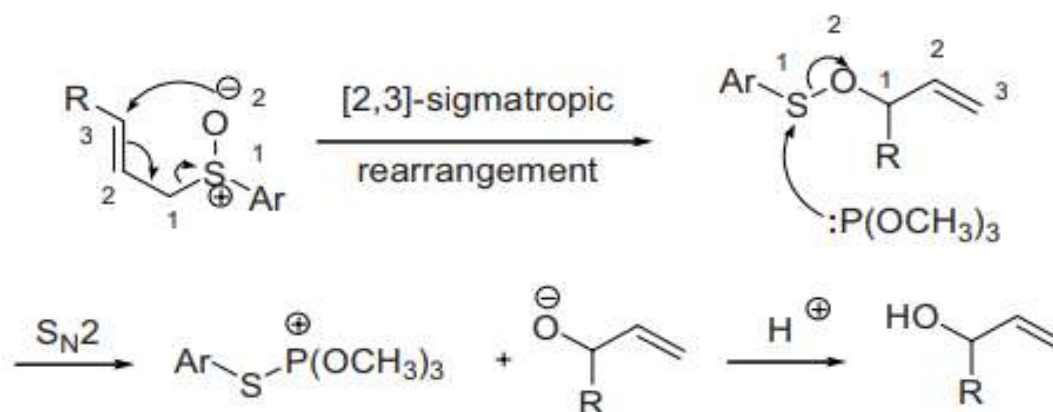
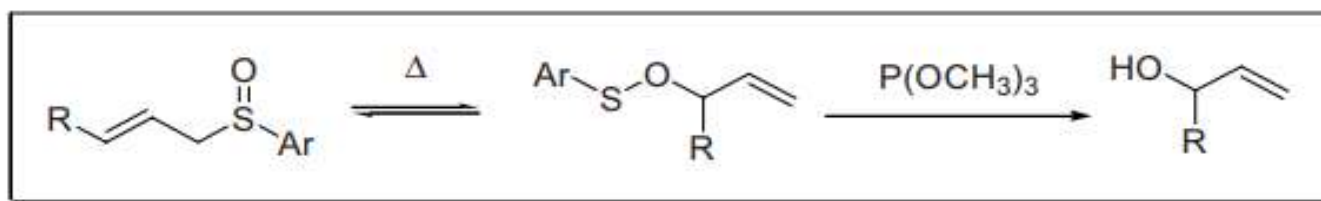
II. Pericyclic Reactions
11. Mislow-Evans Rearrangement



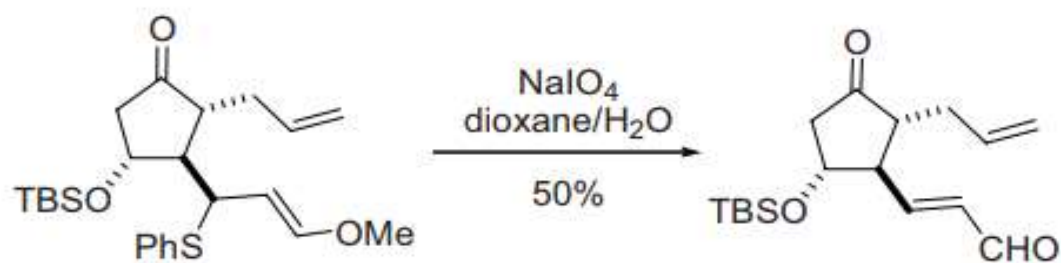
Dr. Rajeev Ranjan
University Department of Chemistry
Dr. Shyama Prasad Mukherjee University, Ranchi

Mislow-Evans rearrangement

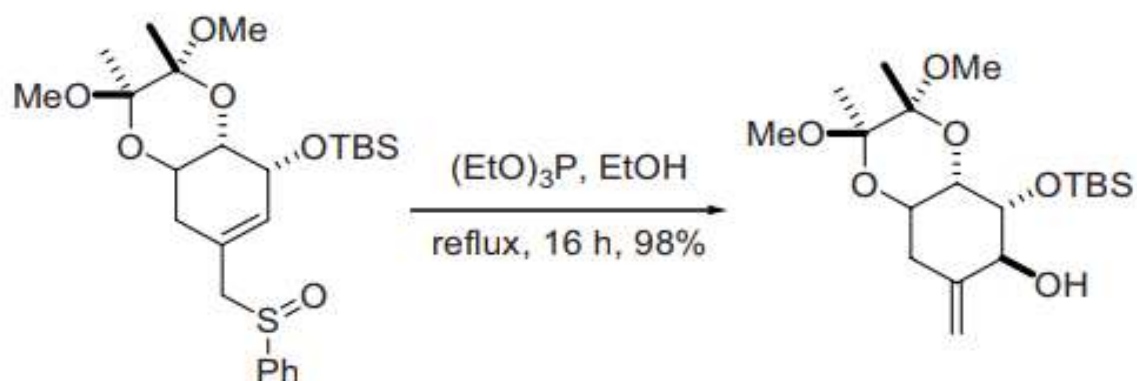
[2,3]-Sigmatropic rearrangement of allylic sulfoxide to allylic alcohol.



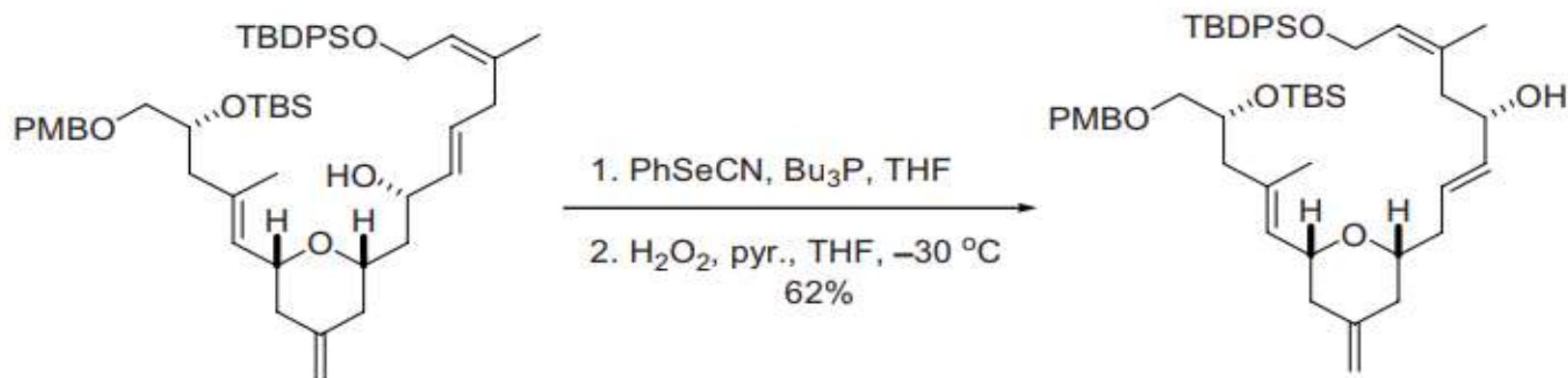
Example 1²



Example 2⁷



Example 3, Seleno-Mislow-Evans⁸



References

1. (a) Tang, R.; Mislow, K. *J. Am. Chem. Soc.* **1970**, *92*, 2100–2104. (b) Evans, D. A.; Andrews, G. C.; Sims, C. L. *J. Am. Chem. Soc.* **1971**, *93*, 4956–4957. (c) Evans, D. A.; Andrews, G. C. *J. Am. Chem. Soc.* **1972**, *94*, 3672–3674. (d) Evans, D. A.; Andrews, G. C. *Acc. Chem. Res.* **1974**, *7*, 147–155. (Review).
2. Sato, T.; Shima, H.; Otera, J. *J. Org. Chem.* **1995**, *60*, 3936–3937.
3. Jones-Hertzog, D. K.; Jorgensen, W. L. *J. Am. Chem. Soc.* **1995**, *117*, 9077–9078.
4. Jones-Hertzog, D. K.; Jorgensen, W. L. *J. Org. Chem.* **1995**, *60*, 6682–6683.
5. Mapp, A. K.; Heathcock, C. H. *J. Org. Chem.* **1999**, *64*, 23–27.
6. Zhou, Z. S.; Flohr, A.; Hilvert, D. *J. Org. Chem.* **1999**, *64*, 8334–8341.
7. Shinada, T.; Fuji, T.; Ohtani, Y.; Yoshida, Y.; Ohfuné, Y. *Synlett* **2002**, 1341–1343.
8. Aubele, D. L.; Wan, S.; Floreancig, P. E. *Angew. Chem., Int. Ed.* **2005**, *44*, 3485–3499.
9. Albert, B. J.; Sivaramakrishnan, A.; Naka, T.; Koide, K. *J. Am. Chem. Soc.* **2006**, *128*, 2792–2793.
10. Pelc, M. J.; Zakarian, A. *Tetrahedron Lett.* **2006**, *47*, 7519–7523.
11. Brebion, F.; Najera, F.; Delouvrie, B.; Lacote, E.; Fensterbank, L.; Malacria, M. *Synthesis* **2007**, 2273–2278.