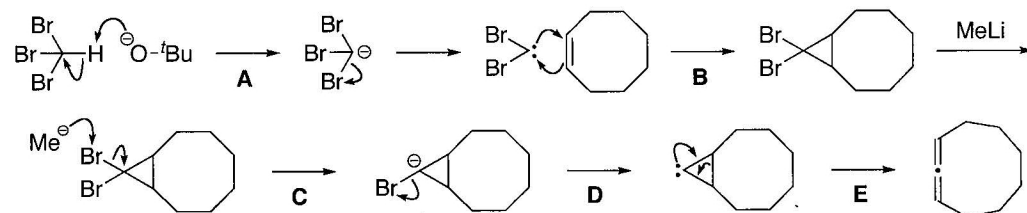


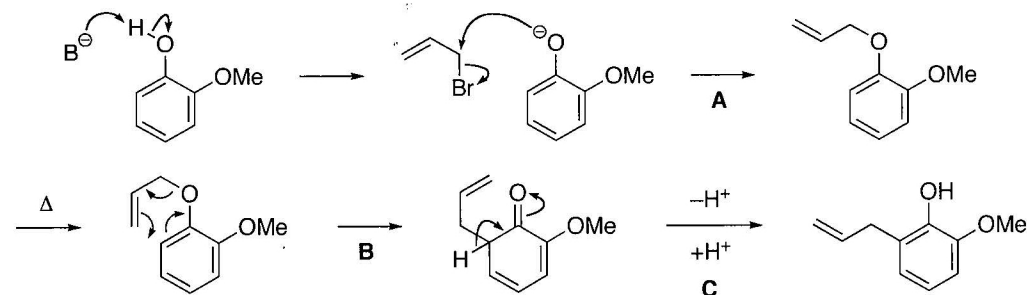
A061



Skattebøl, L.; Solomon, S. *Org. Synth., Coll. Vol. V* **1973**, 306.

A: Generation of a dibromocarbene via α -elimination of HBr. **B:** Insertion of the carbene to the olefin to form a cyclopropane. **C:** Halogen-lithium exchange. **D:** Generation of a carbene. **E:** Insertion of the carbene to the C-C bond to form an allene.

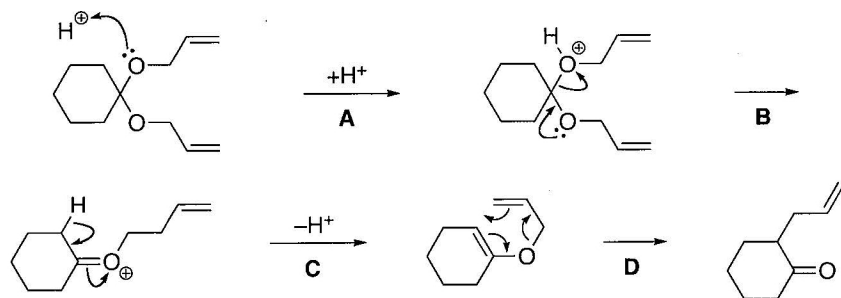
A062



Allen, C. F. H.; Gates, J. W., Jr. *Org. Synth., Coll. Vol. III* **1955**, 418.

A: Allylation of the phenol. **B:** [3,3] Sigmatropic rearrangement (Claisen rearrangement). **C:** Aromatization.

A063

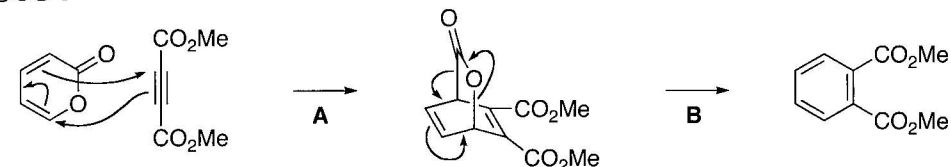


Howard, W. L.; Lorette, N. B. *Org. Synth., Coll. Vol. V* **1973**, 25.

A: Protonation of an oxygen atom of the acetal. **B:** Elimination of allyl alcohol helped by the oxygen lone pair of the acetal. **C:** Deprotonation to form an enol ether. **D:** [3,3] Sigmatropic rearrangement

(Claisen rearrangement).

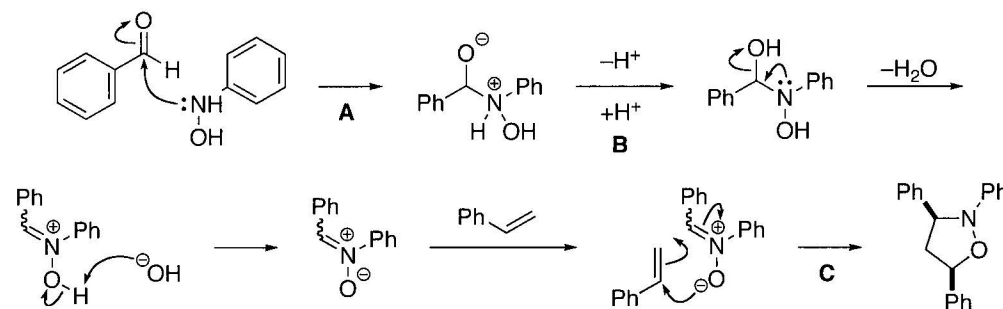
A064



Ziegler, T.; Layh, M.; Effenberger, F. *Chem. Ber.* **1987**, 120, 1347.

A: Diels-Alder reaction. **B:** Retro Diels-Alder reaction.

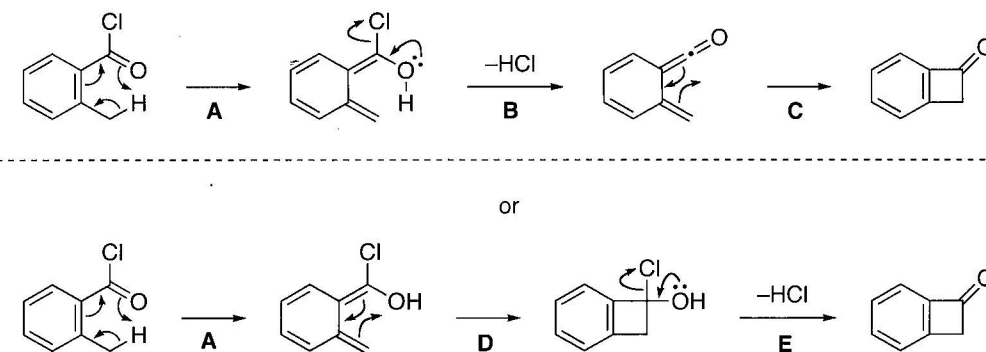
A065



Brüning, I.; Grashey, R.; Hauck, H.; Huisgen, R.; Seidl, H. *Org. Synth., Coll. Vol. V* **1973**, 1124.

A: Addition of a hydroxylamine to the aldehyde. **B:** Proton transfer followed by elimination of water to form a nitron. **C:** 1,3-Dipolar cycloaddition of the nitron to styrene (electronically, [4+2] cycloaddition).

A066



Schiess, P.; Barve, P. V.; Dussy, F. E.; Pfiffner, A. *Org. Synth., Coll. Vol. IX* **1998**, 28.

A: Tautomerization to form an α -quinodimethane. **B:** Elimination of HCl to form a ketene. **C:** 4e