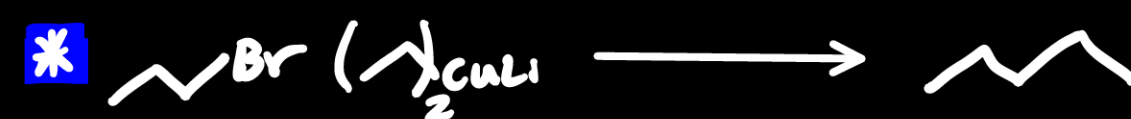
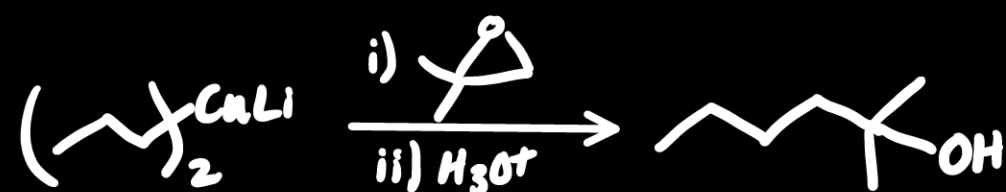
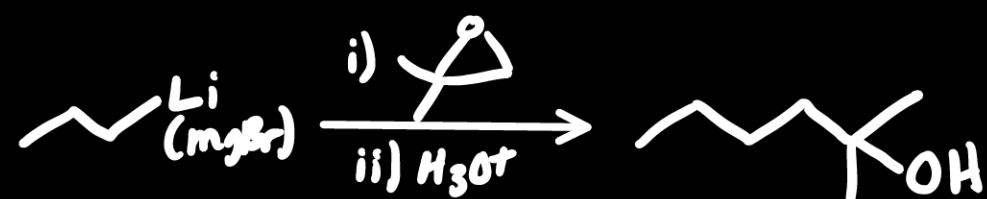


Chapter 15 - Summary of Reactions

Friday, August 7, 2020

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- alkyl halide can be 1°, 2°, 3°
- alkyl halide can be alkyl, aryl, vinyl, allyl

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- alkyl halide can be alkyl, aryl, vinyl, allyl

- If halogen is directly attached to an alkene w/ E/Z geometry, the geometry is preserved in organolithium



- Any alkyl lithium can be converted to a cuprate
- Similar to the above rxn, if lithium is directly attached to an alkene w/ E/Z geometry, the geometry is preserved in the cuprate

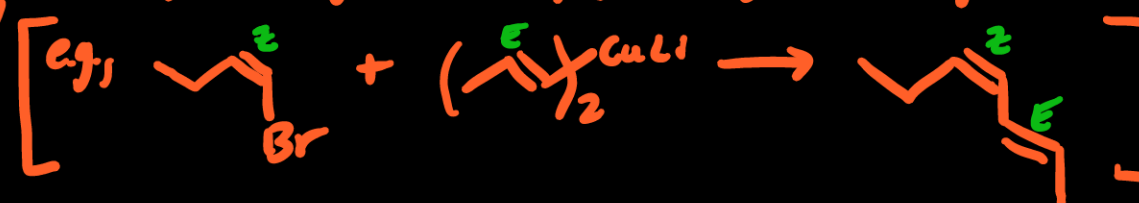
- organolithium and organomagnesium (Grignard) reagents work
- acid-base rxn (organometallic is a strong base) w/ water

- organolithium and organomagnesium (Grignard) reagents work
- epoxide-opening under basic conditions, Therefore ALL considerations regarding epoxide-openings under basic conditions apply

- Same considerations as above w/ organolithiums + Grignards

Cyclopropanation (same stereochemical considerations as with epoxidation w/ m-CPBA)

- ALL vinyl and aryl halides work
- 1° and 2° alkyl and allyl also work (No 3° alkyl halides)
- If halogen and/or cuprate is directly attached to an alkene w/ E/Z geometry, the geometry is preserved



* indicates rxns for which you do not need to know arrow-pushing mechanisms