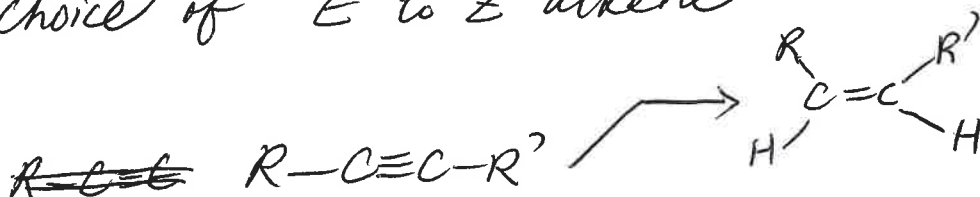


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Recall Rxns of alkynes

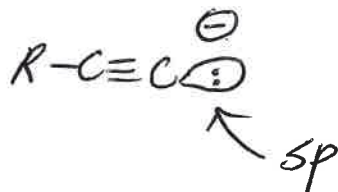
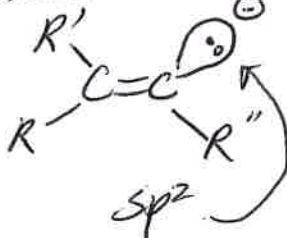
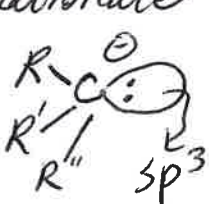
Reagent choice of E to Z alkene formation



pKa values of hydrocarbons.



Rationale - examine the conjugate bases.



Increasing stability \rightarrow

Recall s-orbital is a "better place" for e⁻'s than p-orbital

New methods involving "heterobimetallic catalysis" (in the news)

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vs.



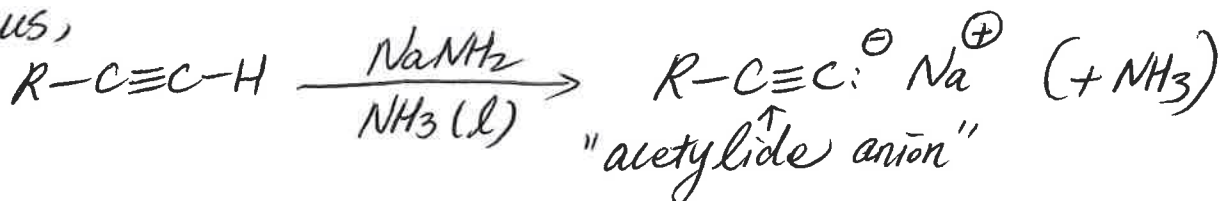
Thus,
 sp better than sp^2 better than sp^3 for e^- 's

Bases we can access.



\hookrightarrow can quantitatively deprotonate $R-C \equiv C-H$!

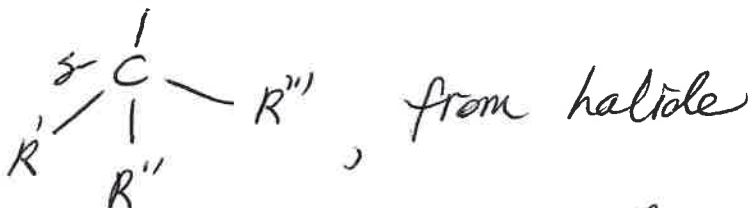
Thus,



\longrightarrow Good nucleophile & Good base

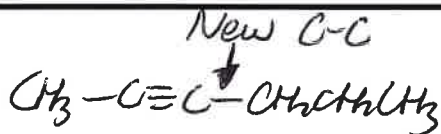
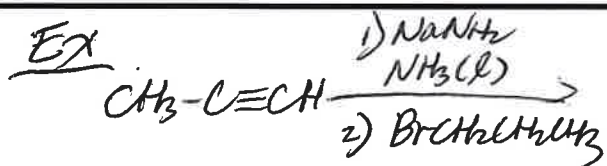


Recall st Li



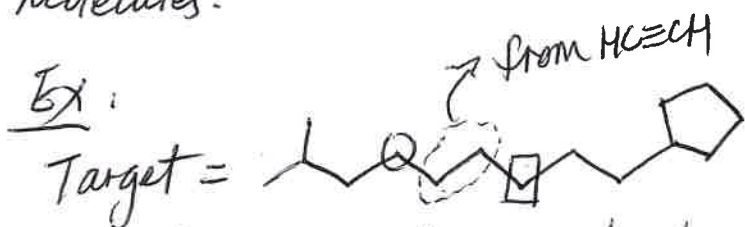
Key point: Synthetic utility of acetylide anions — they participate in S_N2 rxns.
 (Grignard & organolithium reagents do not do S_N2)

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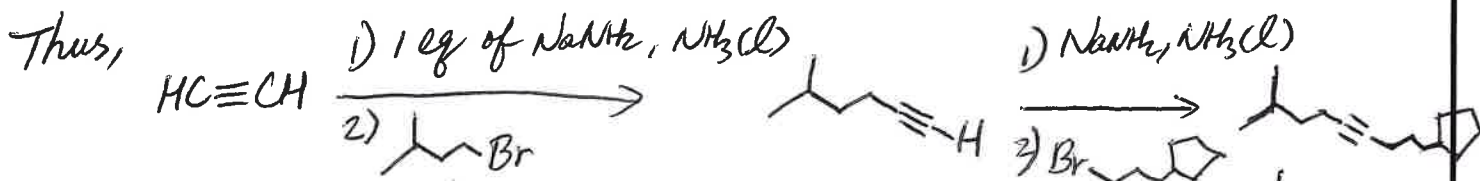
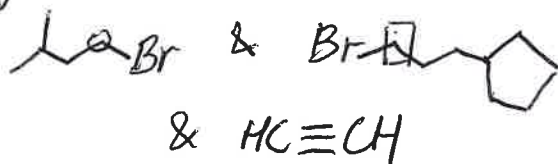


Note limitation:
 must use 1° alkyl halide
 (2° → E2 dominates)

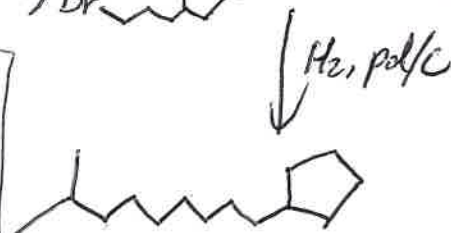
Use this type of C-C bond forming rxn in concert w/ other alkyne rxns to access a wide range of hydrocarbon molecules.



Build from smaller molecules.



Note: pay careful attention to discussion of planning of multistep synthetic routes



Course Chem 343 Lecturer Gellman
Day Friday Date 12-4-15
Notes Taken By LL Total # of Pages 4

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Chap. 15 diene, resonance & aromaticity

Rec problems = 3, 5, 13-26, 28-33, 36-40, ~~41~~
42-49, 58, 61-69, 71, 73-84