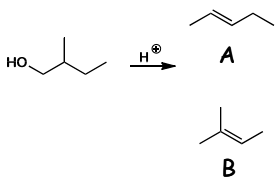
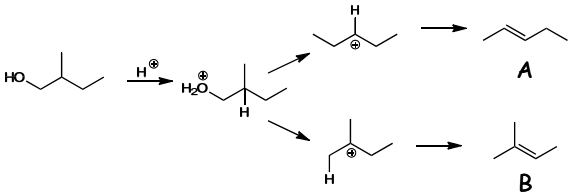
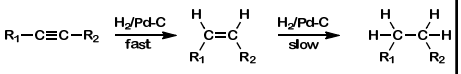
What would be predicted to be the major compound of the following reaction?



What would be predicted to be the major compound of the following reaction?

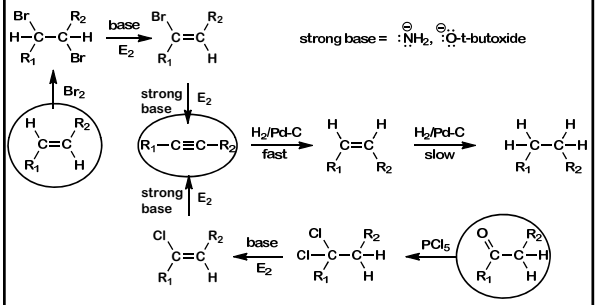


Catalytic hydrogenation of alkynes is a synthesis of both *cis* alkenes and alkanes.



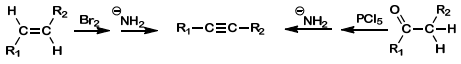
3

How are alkynes prepared?



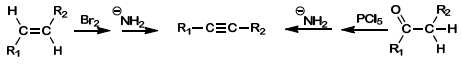
4

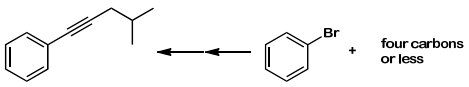
Alkynes can be prepared from either alkenes or carbonyl compounds.



5

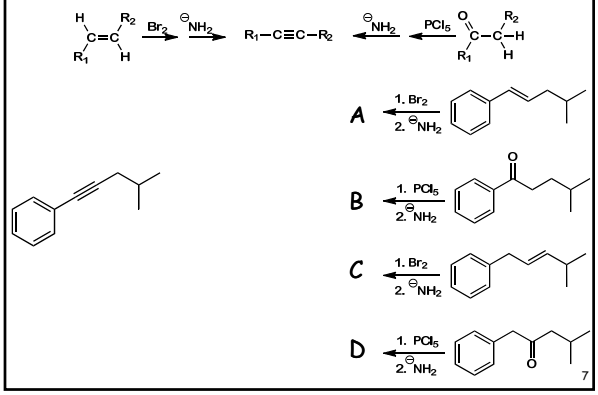
How could the following alkyne be prepared from bromobenzene and reactants containing 4 carbons or less?





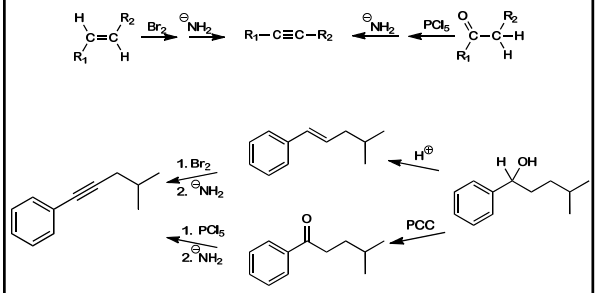
6

Choose the reaction sequence that could not be used to prepare the alkyne.



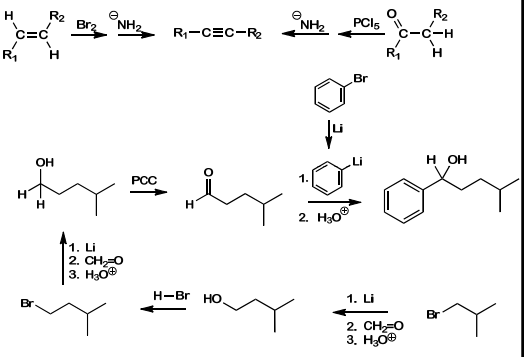
7

How could the following alkyne be prepared from bromobenzene and reactants containing 4 carbons or less?



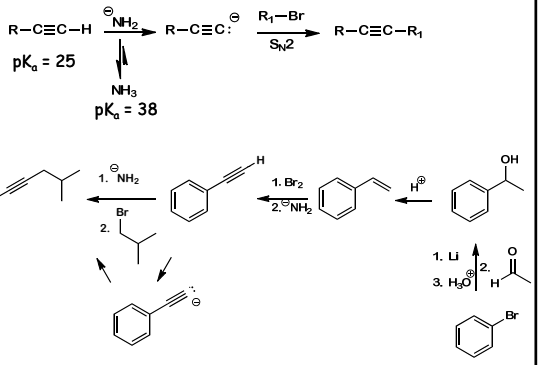
8

How could the following alkyne be prepared from bromobenzene and reactants containing 4 carbons or less?



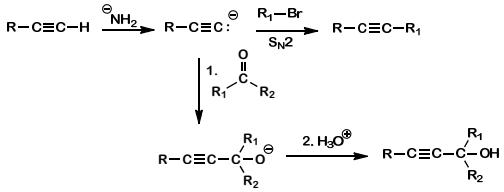
9

How can the following alkyne be prepared from bromobenzene and reactants containing 4 carbons or less?



10

Carbonyl compounds as well as alkyl bromides are also useful reactants for the preparation of alkynes.

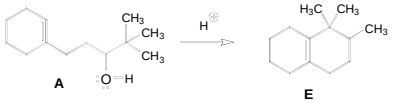


The End of New Material for Exam 3

Friday lecture (October 30)

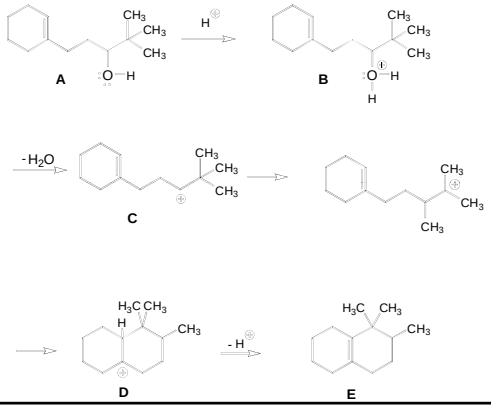
1. Future Course Selections.
   i.e. CHE 322 vs 326
2. Research Opportunities
3. Career Opportunities
4. Chemistry Minor

Give a mechanism for the following reaction.



14

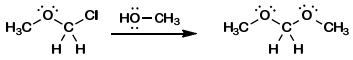
Give a mechanism for the following reaction.



15

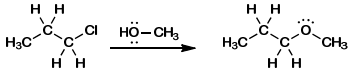
Reaction A is faster than B.

A



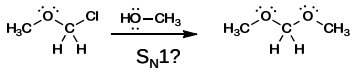
A. Very sure this is true
B. Somewhat sure this is true
C. Maybe this is true
D. Maybe this is false
E. Somewhat sure this is false
F. Very sure this is false

B



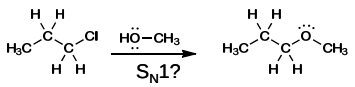
Are these reactions S_N1 or S_N2?

A



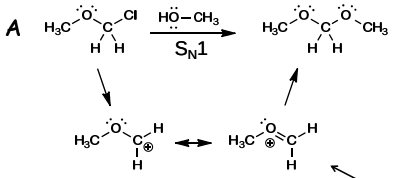
A. Very sure this is true
B. Somewhat sure this is true
C. Maybe this is true
D. Maybe this is false
E. Somewhat sure this is false
F. Very sure this is false

B

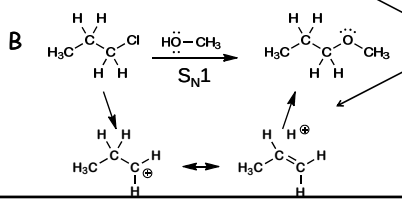


The rate of S_N1 reactions depends upon the stability of the intermediate cation.

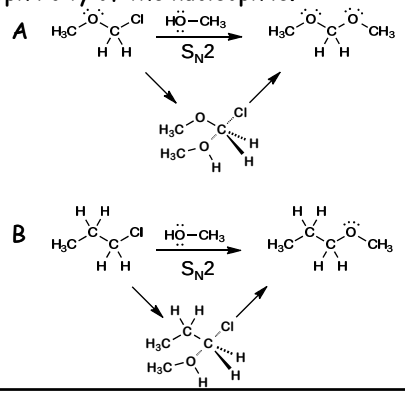
A



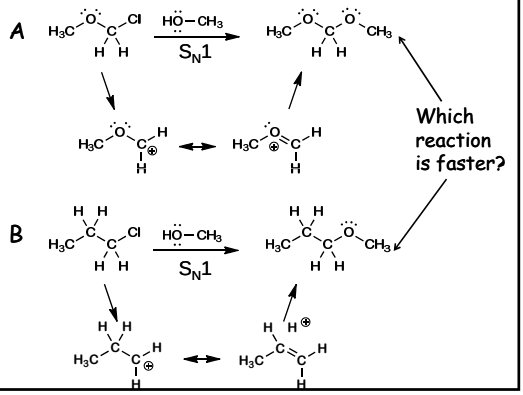
B



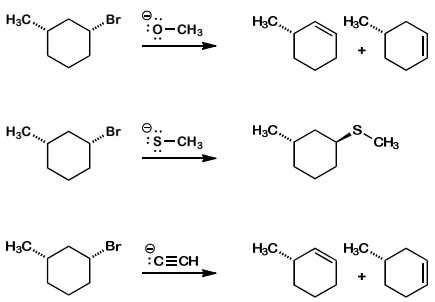
The rate of S_N2 reactions depends upon the nucleophilicity of the nucleophile.



Reaction A occurs at a faster rate than reaction B.

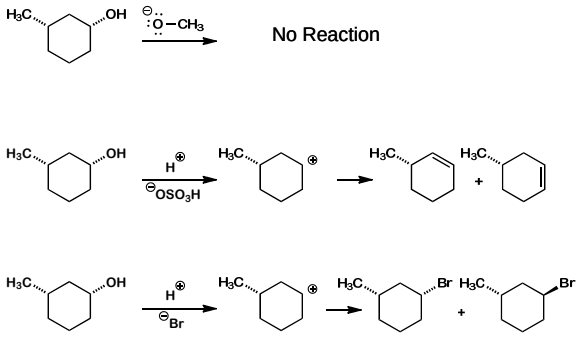


Predict the major products of the following reactions.

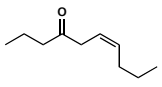


21

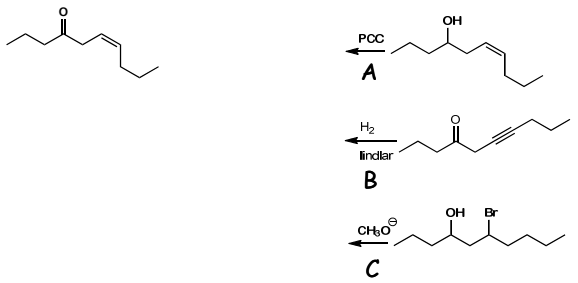
Predict the major products of the following reactions.



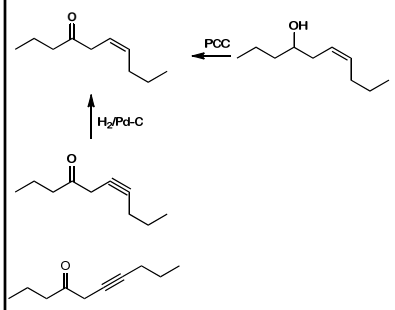
Propose a synthesis of the following compound from reactants containing four carbon atoms or less.



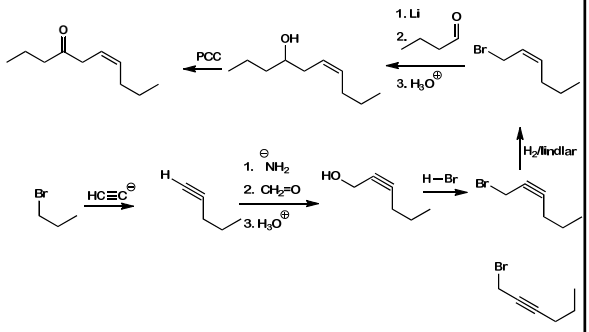
Which of the following would *not* be a good last step in your synthesis.



Propose a synthesis of the following compound from reactants containing four carbon atoms or less.



Propose a synthesis of the following compound from reactants containing four carbon atoms or less.



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