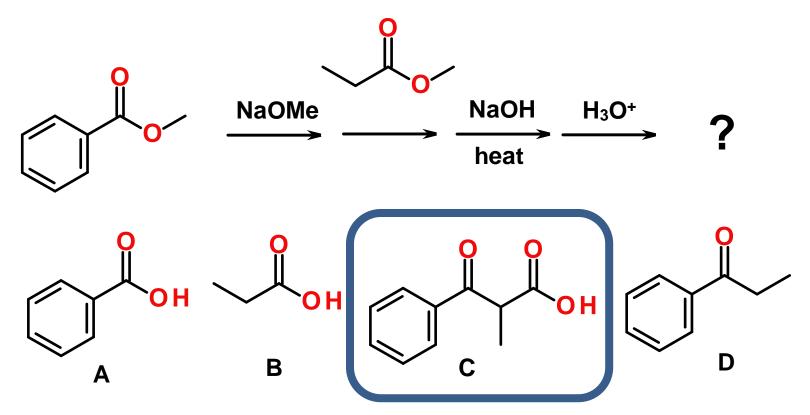


E - None of these products are a major product of the reaction that is shown.



E - None of these products are a major product of the reaction that is shown.

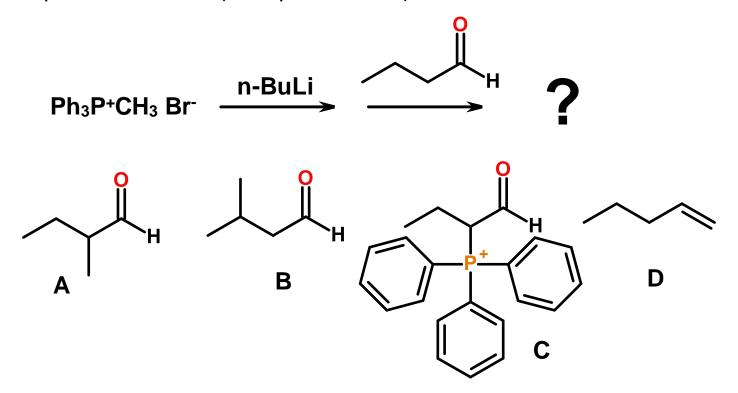
Exam 3

- Time:
 - Tuesday, November 8: 7:00 9:00PM OR
 - Wednesday, November 9: 7:00 9:00PM OR
 - Thursday, November 10: 7:00 10:00PM
- Location Soc/Anthro Testing Center
 - Chapters will be covered in this order: Chapter 17, 18
- Practice Exams are Posted
 - Ex3A Practice Exam 3A
 - Ex3B Practice Exam 3B
- Deadline for alternate arrangements is Monday, 11/7/2016 at 4:30 PM (i.e., close of business)
 - An oral make-up exam will be required for making up the exam for all students not taking the exam on the above dates or having already made prior arrangements

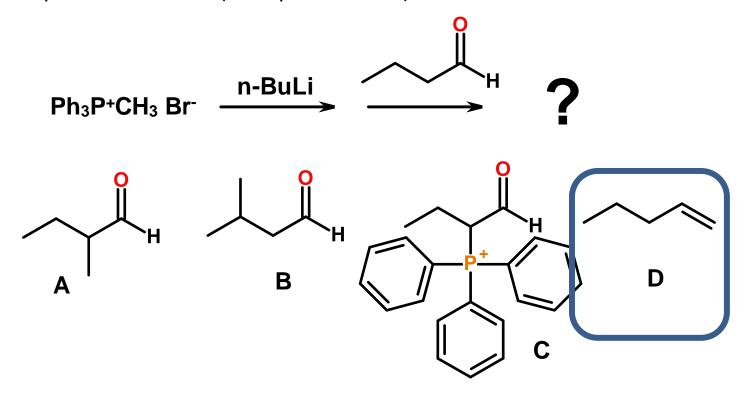
Exam 4 (Cumulative Exam)

- Time:
 - Thursday, December 8: 2:00 4:00PM OR
 - Saturday, December 10: 10:00 am Noon OR
 - Saturday, December 10: 1:00 4:00PM
- Location Soc/Anthro Testing Center
 - Chapters will be covered in this order: Chapter 18, 19, 20
- Practice Exams are Posted
 - Ex4-90A Practice Final Exam
 - Ex4-90B Practice Final Exam
- Deadline for alternate arrangements is Monday, 12/5/2016 at 4:30 PM (i.e., close of business)
 - An oral make-up exam will be required for making up the exam for all students not taking the exam on the above dates or having already made prior arrangements

Assignment	Due Date
Ex4-01-B7-18-06B Claisen Condensation	Friday, November 11, 2016
Ex4-02-B7-18-06C Claisen Condensation	Saturday, November 12, 2016
Ex4-03-B7-18-08B A-B Unsaturated Rxns	Sunday, November 13, 2016
Ex4-04-B7-18-08C A-B Unsaturated Rxns	Monday, November 14, 2016
EX4-05-B7-18-09A Card Classification	Tuesday, November 15, 2016
Ex4-06-B7-19-01 Hemiacetal Formation	Wednesday, November 16, 2016
Ex4-07-B7-19-02 Carbohydrate Reactions	Thursday, November 17, 2016
Ex4-08-B7-19-02 Kiliani-Fischer Synthesis	Friday, November 18, 2016
Ex4-09-B7-19-03 Important Carbohydrates	Monday, November 28, 2016
Ex4-10-B7-19-04 Carbs in Blood Types	Monday, November 28, 2016
Thanksgiving Break	
Ex4-11-B7-20-01 Amino Acid Nomenclature	Tuesday, November 29, 2016
Ex4-12-B7-20-01B Amino Acid Naming	Wednesday, November 30, 2016
Ex4-13-B7-20-02 Amino Acid Acid Base	Thursday, December 1, 2016
Ex4-14-B7-20-03 Edmann Degradation	Friday, December 2, 2016
Ex4-15-B7-20-04 Merrified Peptide Synthesis	Saturday, December 3, 2016
Ex4-16-B7-20-05 Synthesis in Peptides	Sunday, December 4, 2016



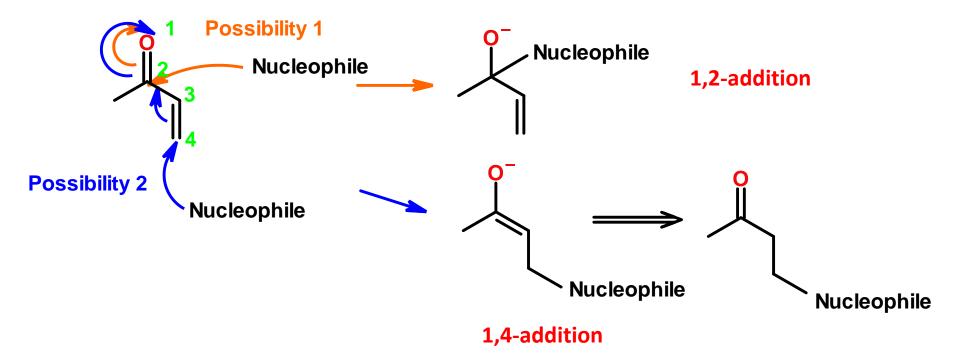
E - None of these products are a major product of the reaction that is shown.



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Conjugate Addition

Special Reaction of α , β -unsaturated C=O



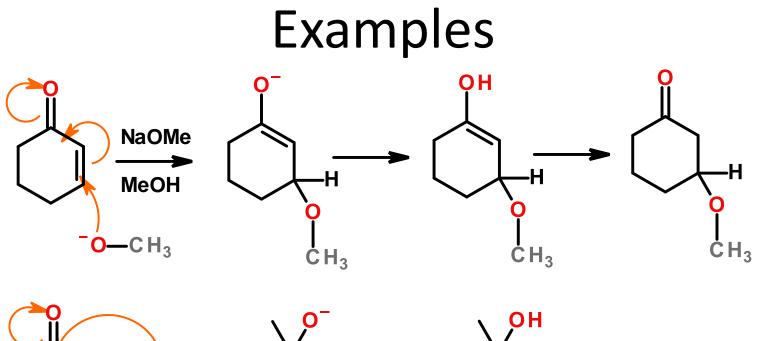
Hard vs Soft Bases

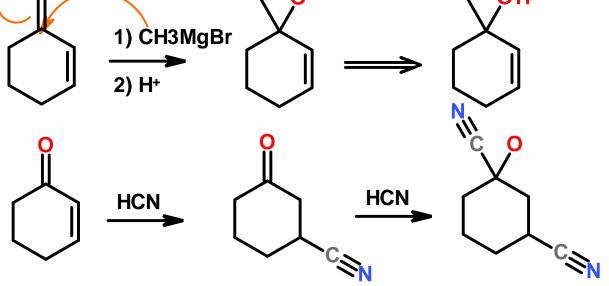
Hard Bases

- Small
- Charge highly localized
- Prefer 1,2-addition
- Examples
 - C-MgBr
 - C-Li
 - NaBH₄
 - LiAlH₄

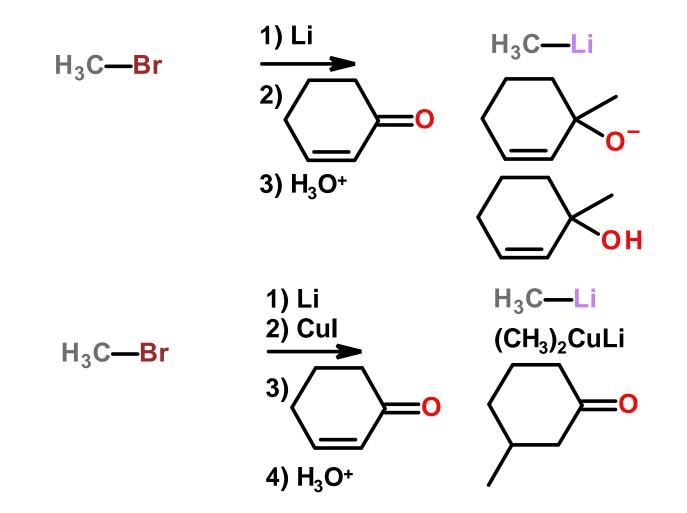
Soft Bases

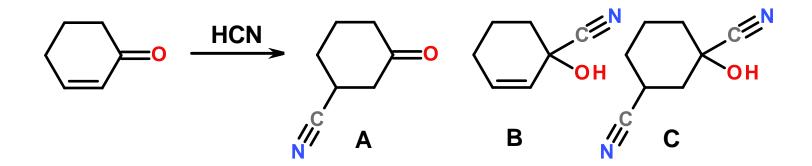
- Larger
- Polarizable (charge can move around)
- Prefer 1,4-addition
- Examples
 - ⁻CN
 - ⁻OR
 - − ⁻NR2
 - (R₂)CuLi



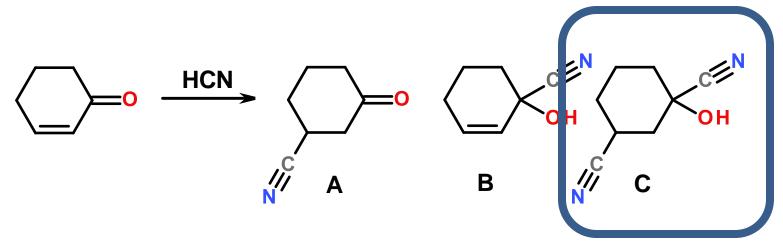


More Examples

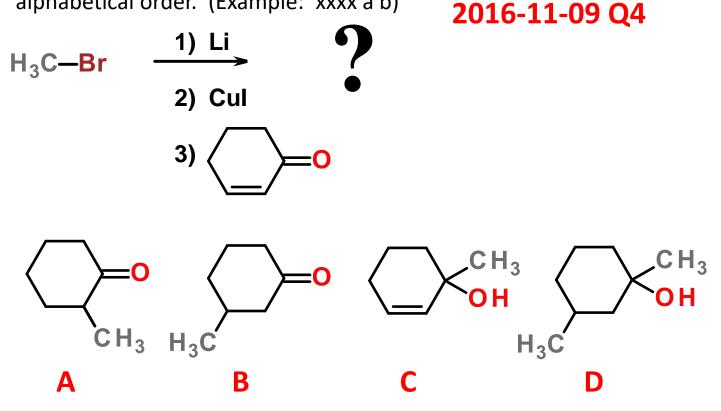




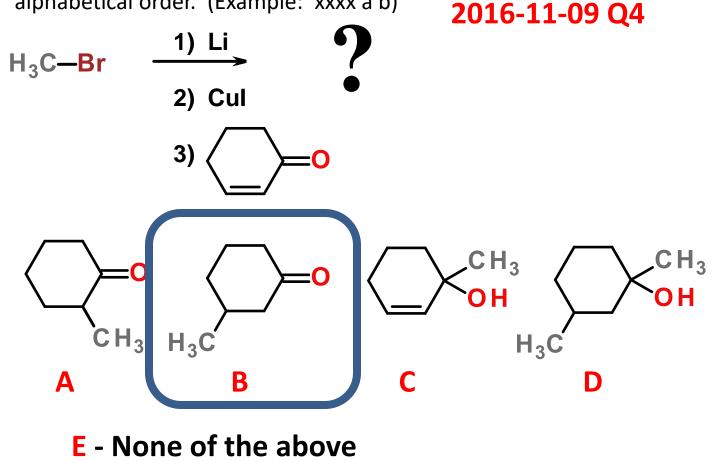
D - None of these products are a major product of the reaction that is shown.

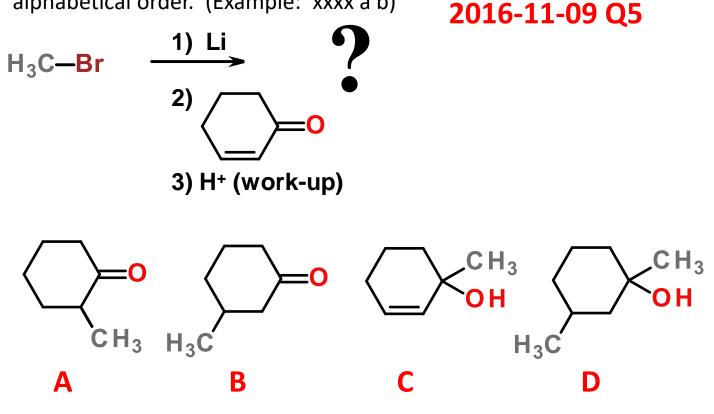


D - None of these products are a major product of the reaction that is shown.

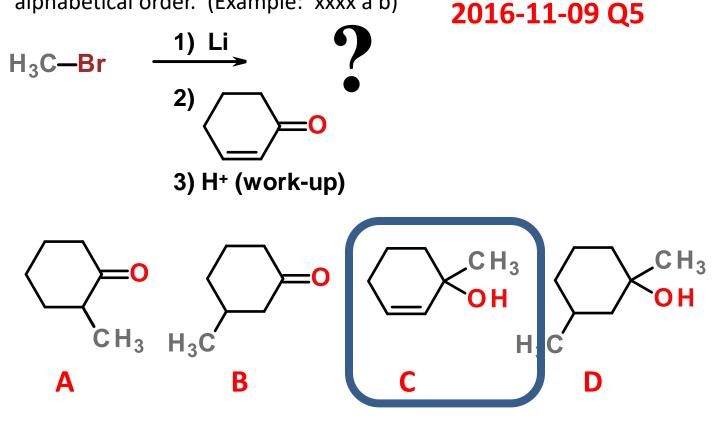


E - None of the above



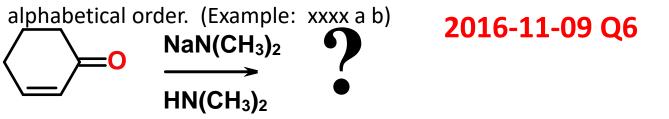


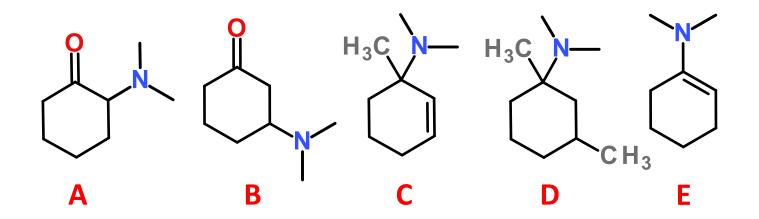
E - None of the above



E - None of the above

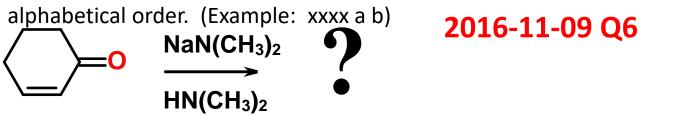
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in

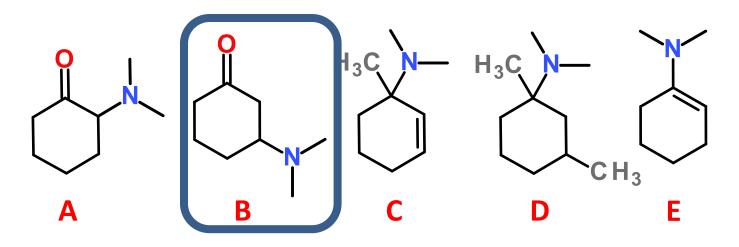




F - None of the above

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in





F - None of the above