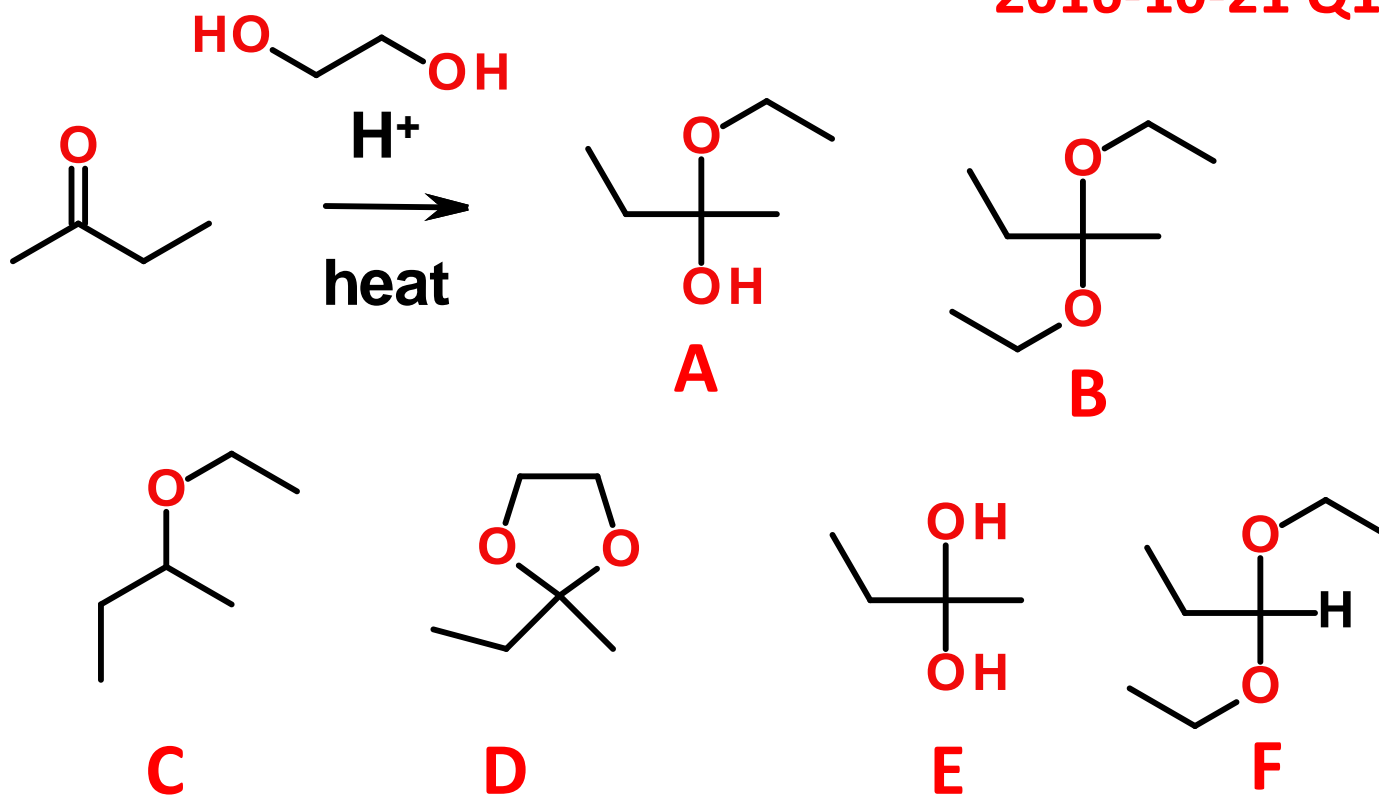


Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab)

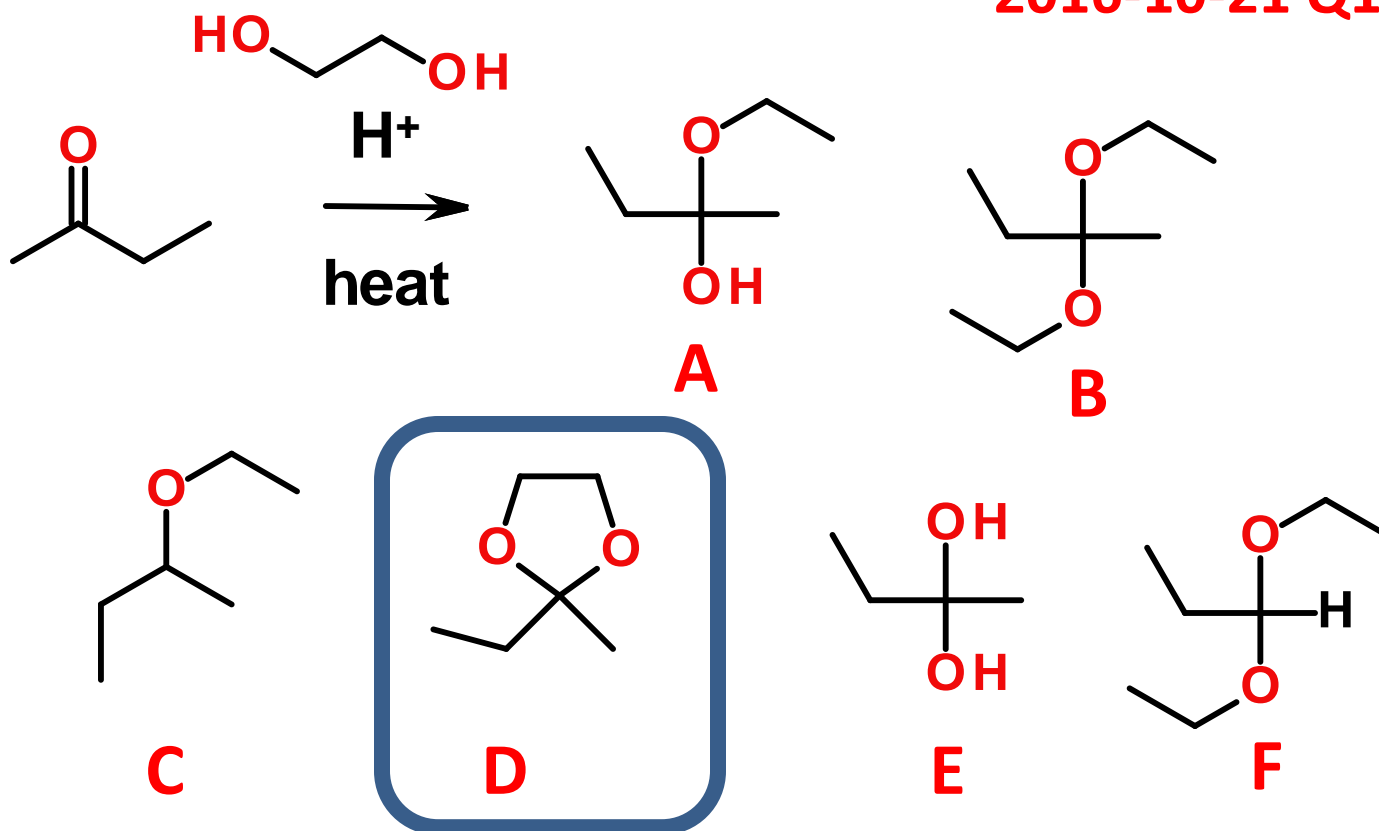
2016-10-21 Q1



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

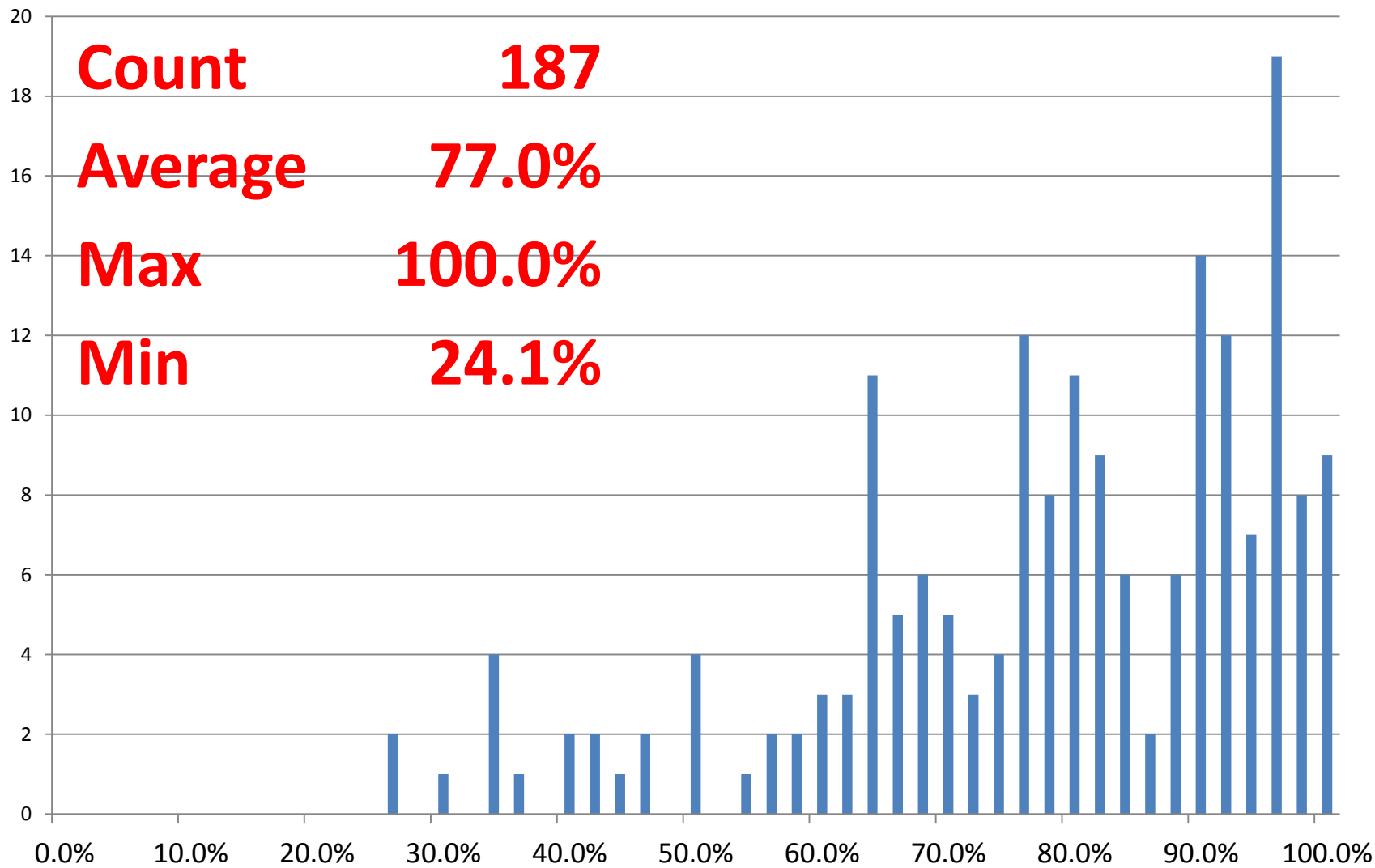
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab)

2016-10-21 Q1



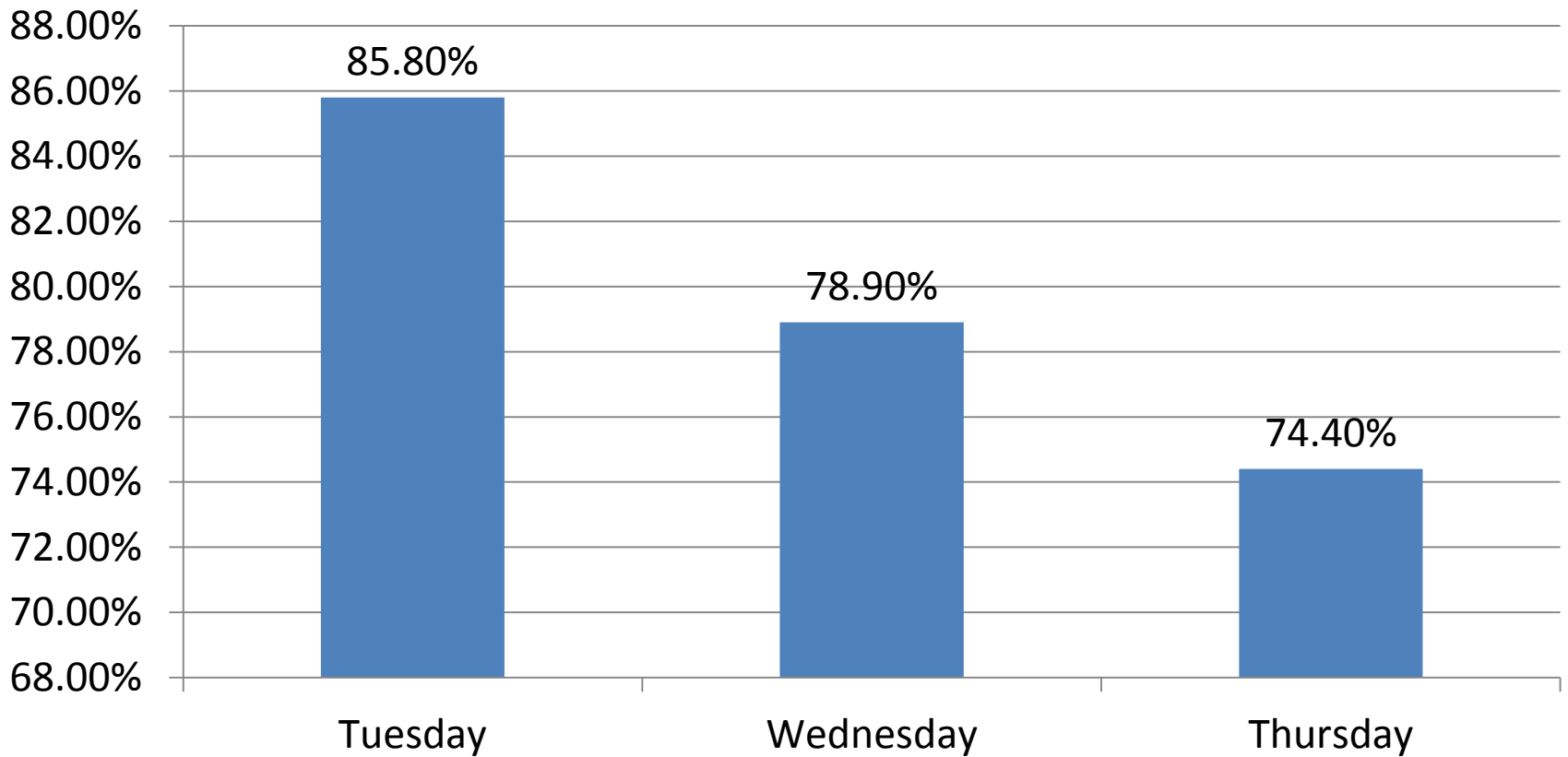
G - None of these products are a major product of the reaction that is shown.

Exam 2 Distribution, Chem 234, Fall 2016



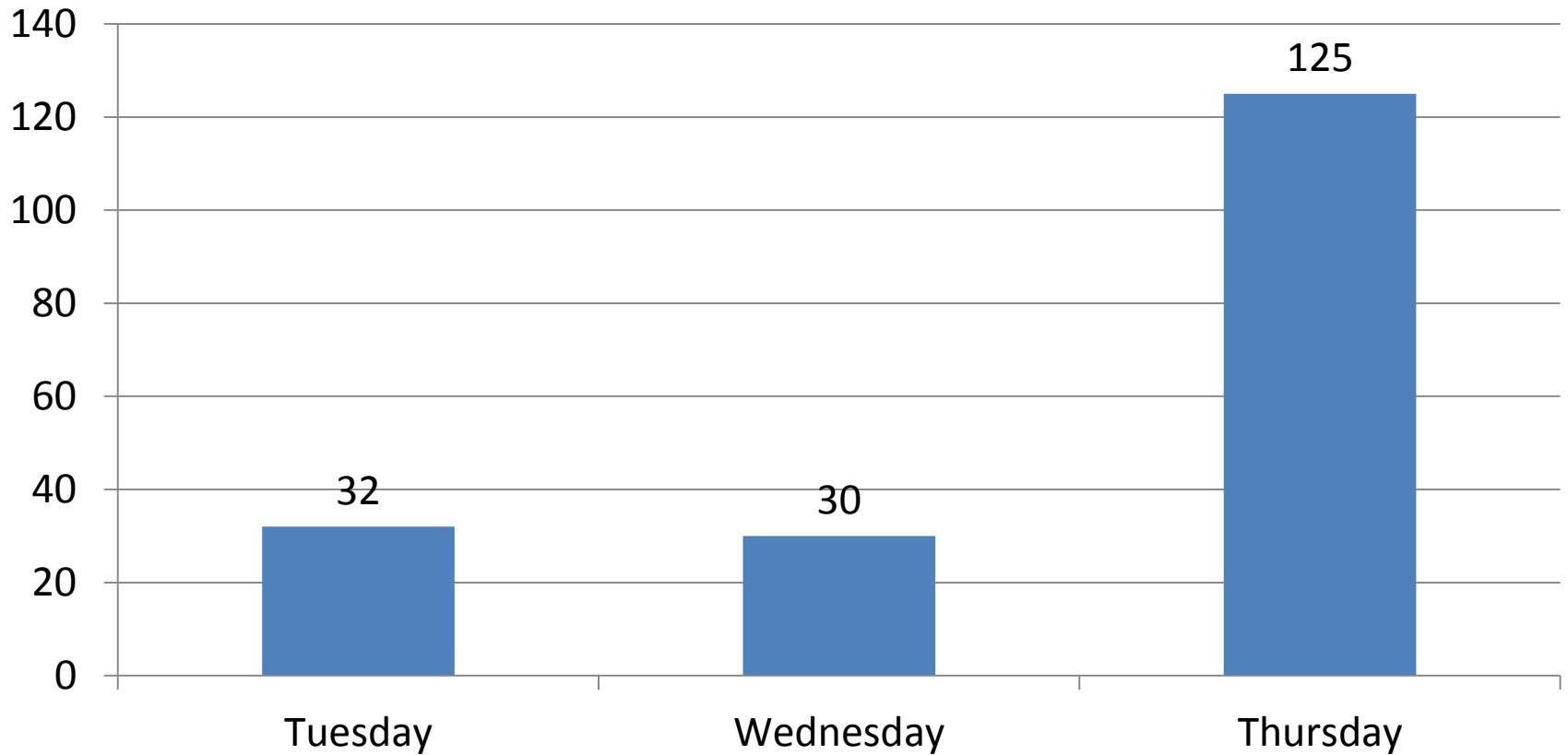
Average by Day, Exam 2 Fall 2016

Series 1



Number of Test Takers, Exam 2 Fall 2016

Series 1



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

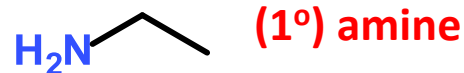
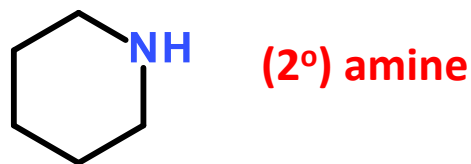
Exam 3
Lecture
Planning

Ex3-01-B7-17-01A Ketone Aldehyde Naming	Friday, October 22
Ex3-01-B7-17-01B Aldehyde Ketone Naming	Saturday, October 22
Ex3-02-B7-17-02A Ald Ket Rxns O-Nucl	Saturday, October 23
Ex3-02-B7-17-02B Ald Ket O-Nucleophiles	Sunday, October 24
Ex3-02-B7-17-02C Ald Ket Rxns O-Nucl	Monday, October 25
Ex3-03-B7-17-03A Ald Ket with N-Nucl	Tuesday, October 26
Ex3-03-B7-17-03B Ald Ket with N-Nucl	Wednesday, October 27
Ex3-03-B7-17-03C Ald Ket with N-Nucl	Thursday, October 28
Ex3-04-B7-17-04A Ald Ket with C-Nucl	Friday, October 29
Ex3-04-B7-17-04B Ald Ket with C-Nucl	Saturday, October 29
Ex3-04-B7-17-04C Ald Ket with C-Nucl	Sunday, October 30
Ex3-05-B7-18-01 Tautomers	Sunday, October 30
Ex3-06-B7-18-02B Alpha-Bromination	Monday, October 31
Ex3-06-B7-18-02C Alpha-Bromination	Tuesday, November 1
Ex3-07-B7-18-03B Alkylation Alpha-C=O	Wednesday, November 2
Ex3-07-B7-18-03C Alkylation Alpha-C=O	Thursday, November 3
Ex3-08-B7-18-04B Malonic Ester Synthesis	Friday, November 4
Ex3-08-B7-18-04C Malonic Ester Synthesis	Saturday, November 5
Ex3-09-B7-18-05 Fatty Acids	Sunday, November 6
Exam 3	November 8, 9, 10

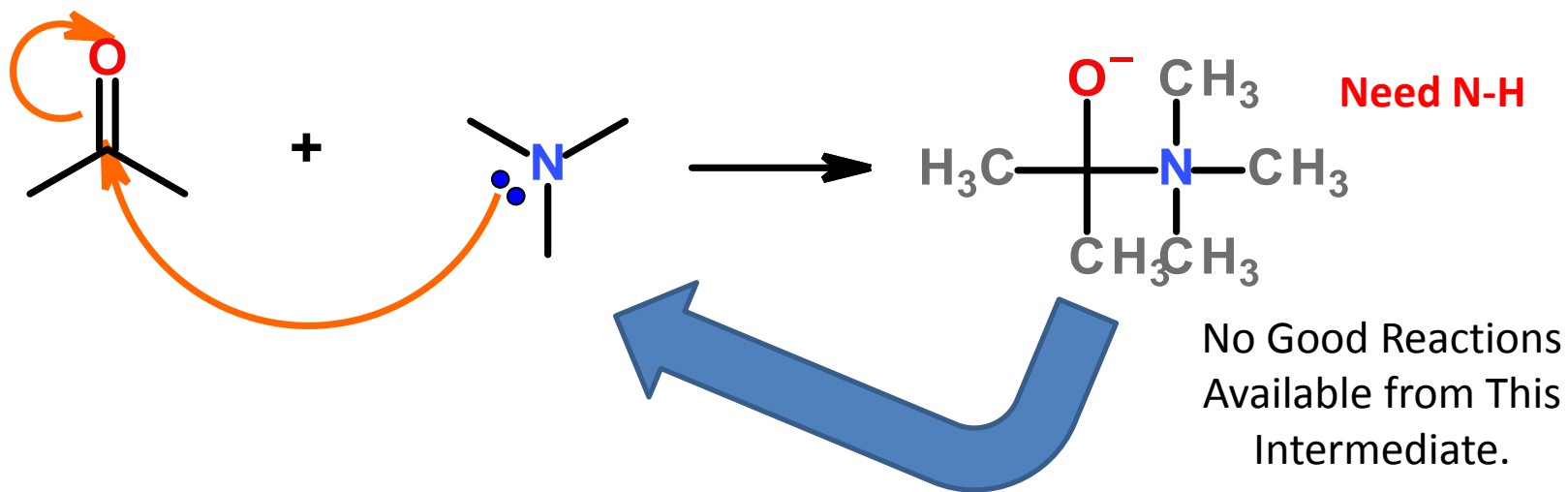
Aldehyde and Ketone Reactions with N-Nucleophiles

- The reaction occurs normally at room temperature.
- The reaction is dependent on the structure of the amine

- Tertiary (3°) amines
- Secondary (2°) amines
- Primary (1°) amines

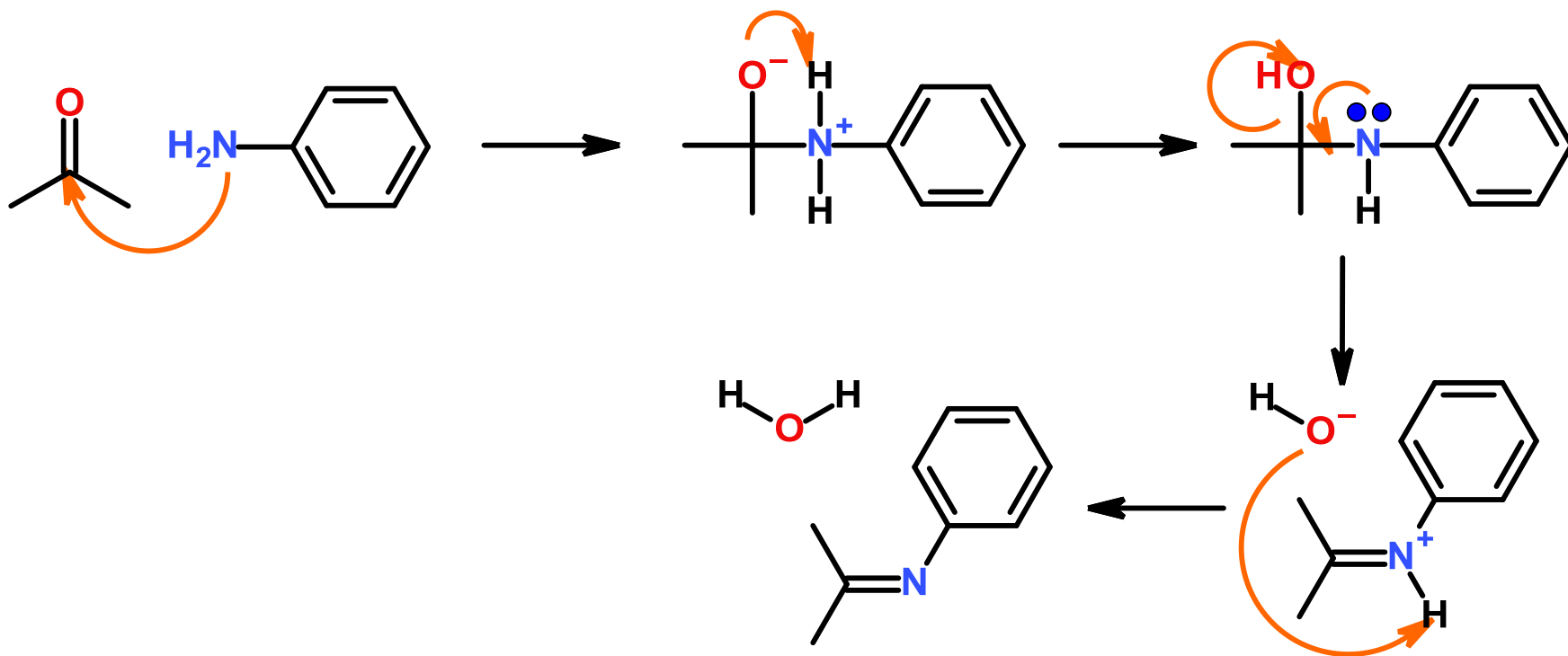


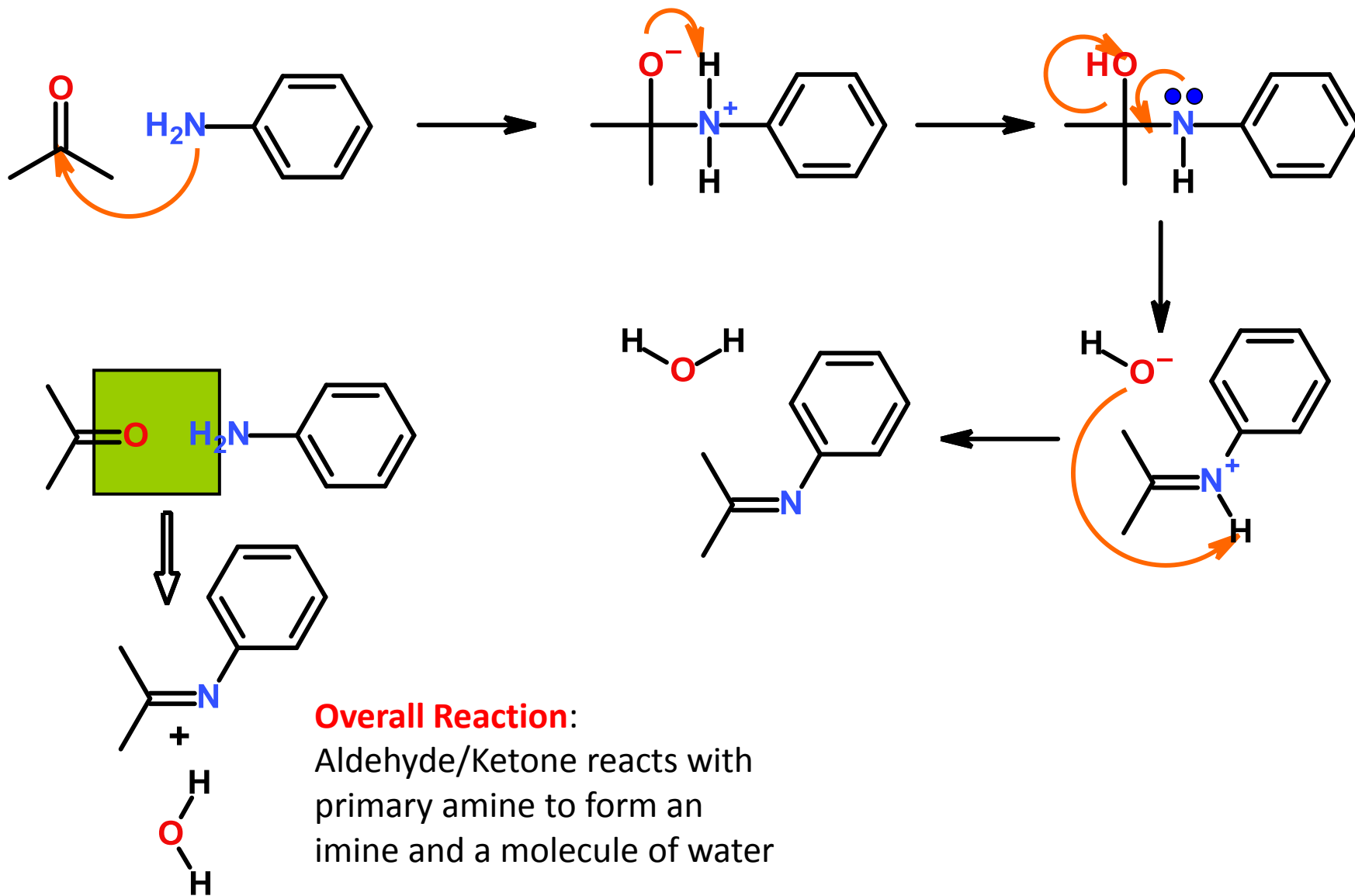
Aldehyde and Ketone Reactions with Tertiary Amines (3° Amines)



No Reaction!

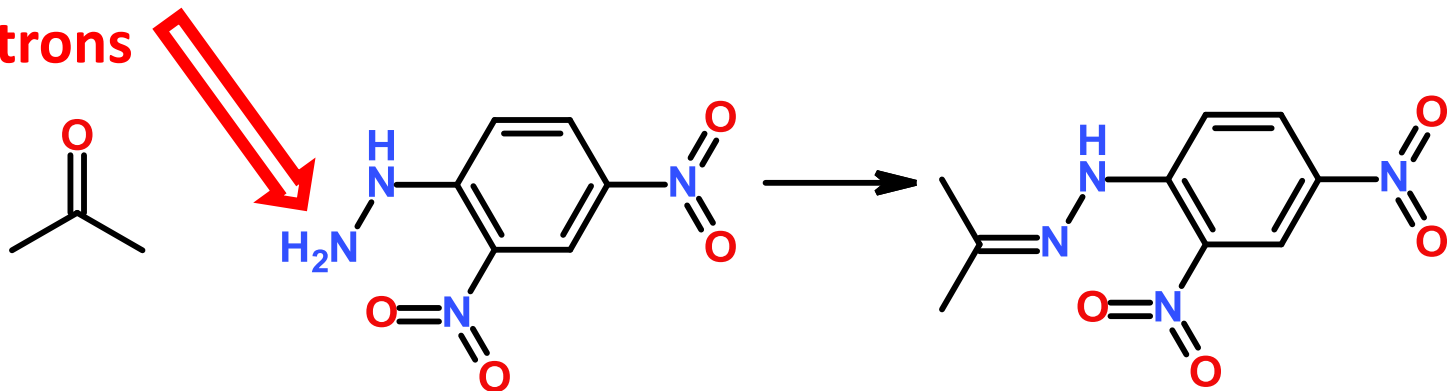
Reactions of Aldehydes and Ketones with Primary (1°) Amines





More reactive lone pair of electrons Examples: Derivatives

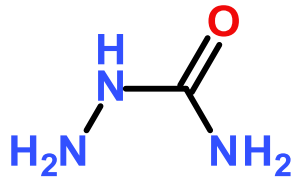
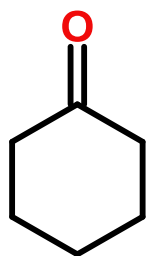
More reactive lone pair of electrons



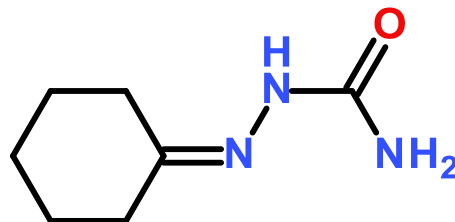
2,4-DNP

2,4-dinitrophenylhydrazine

2,4-dinitrophenylhydrazone

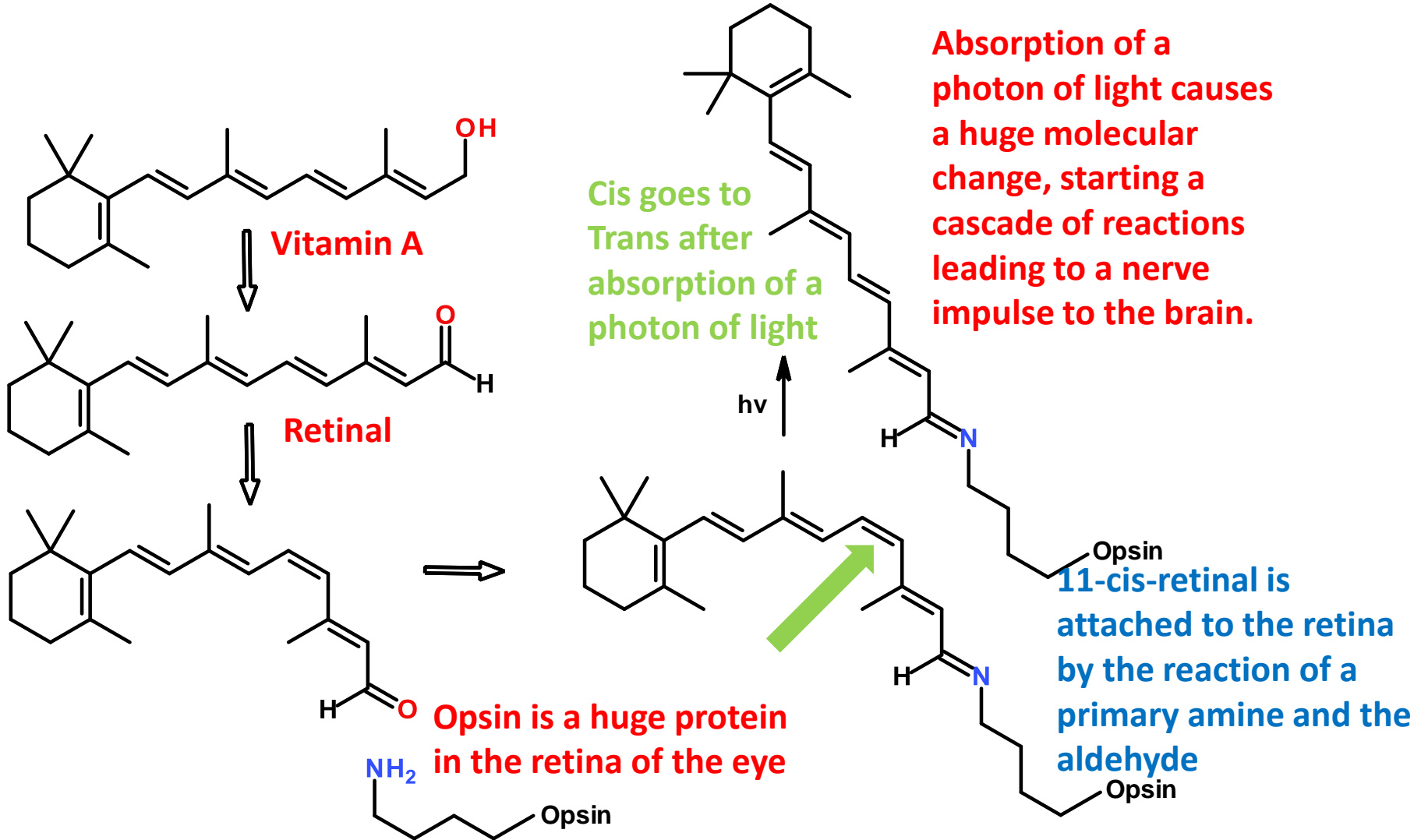


semicarbazide

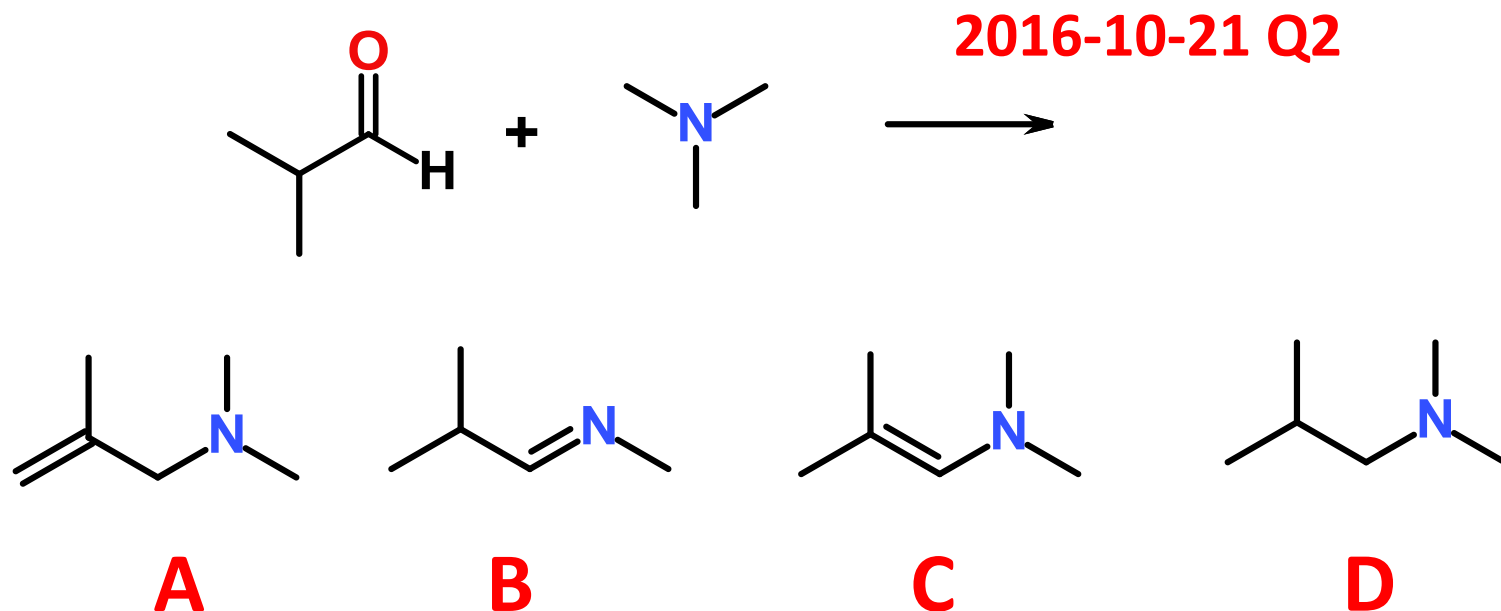


semicarbazone

Chemistry of Vision

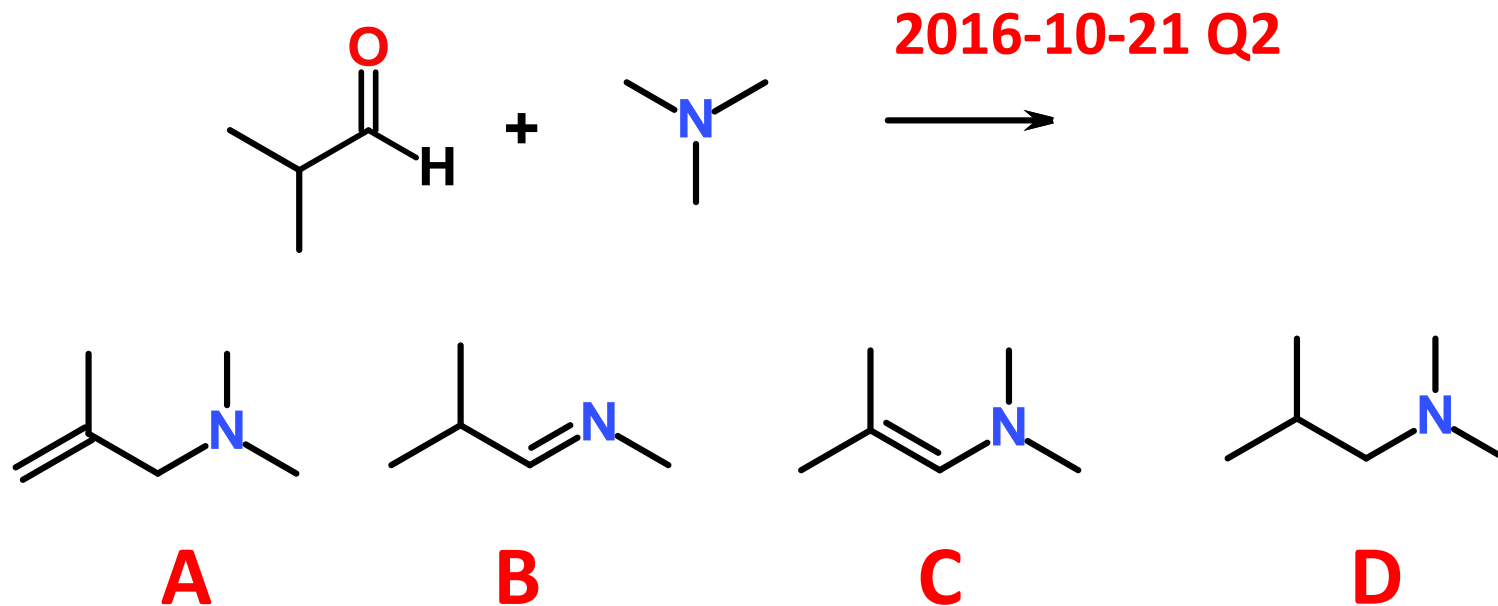


Give the major organic product(s) of the following reaction.



E – None of the above

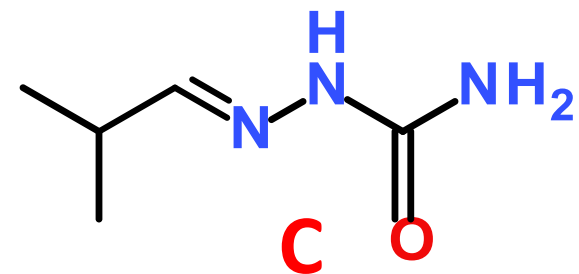
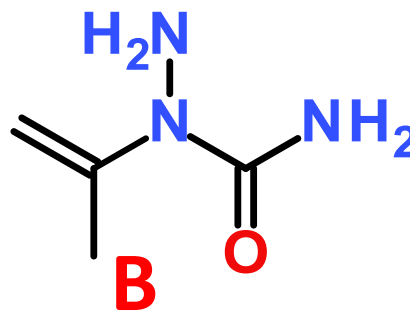
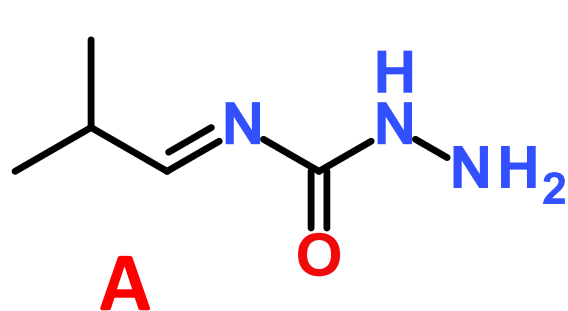
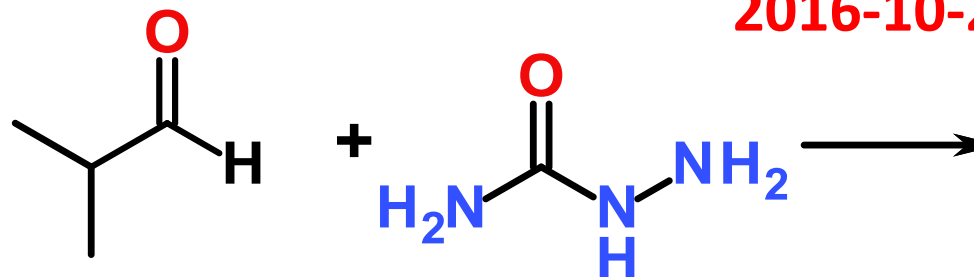
Give the major organic product(s) of the following reaction.



E – None of the above

Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

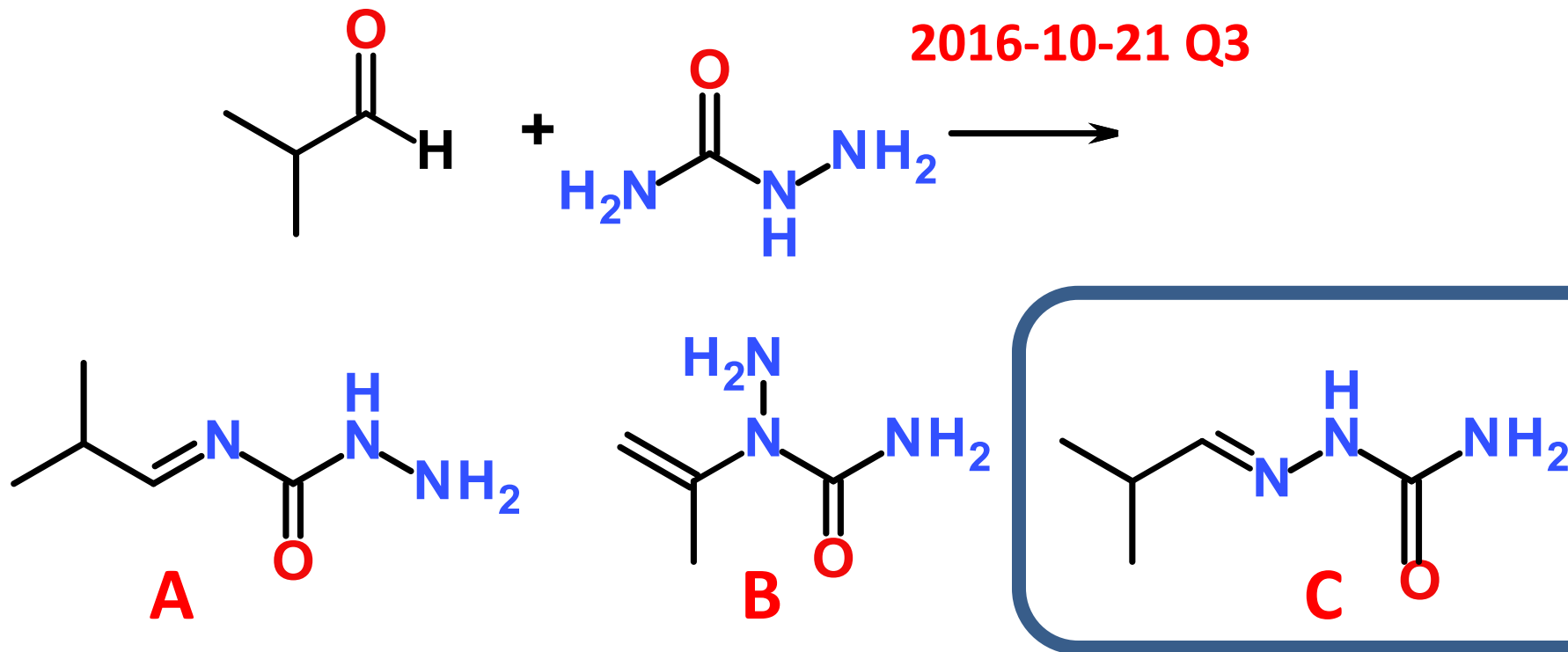
2016-10-21 Q3



D – None of the above

Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

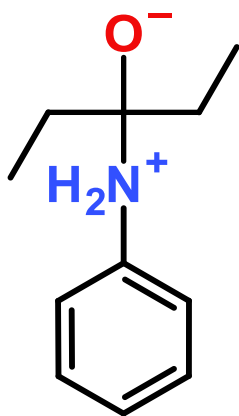
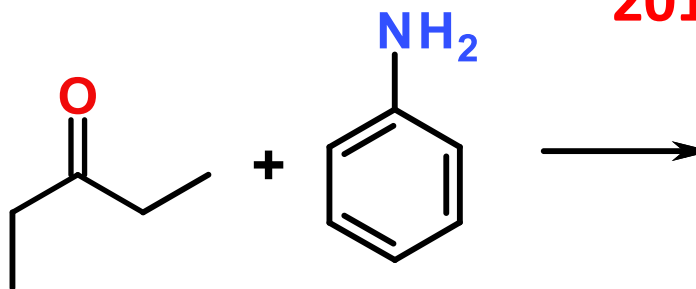
2016-10-21 Q3



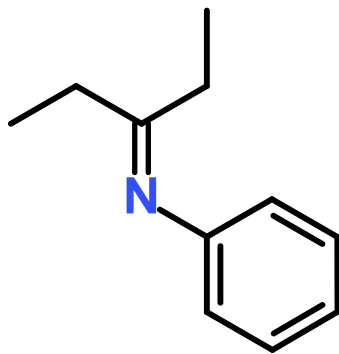
D – None of the above

Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

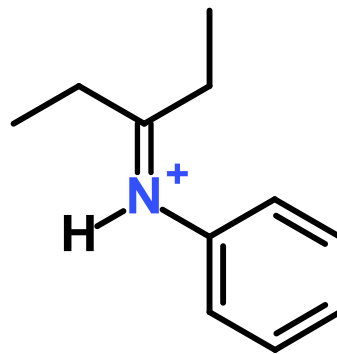
2016-10-21 Q4



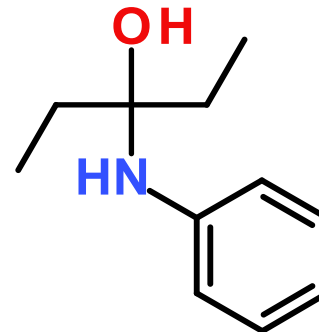
A



B



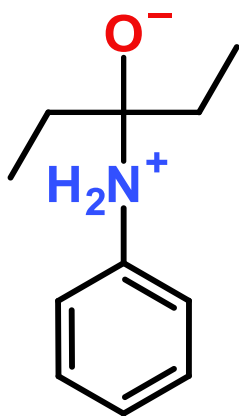
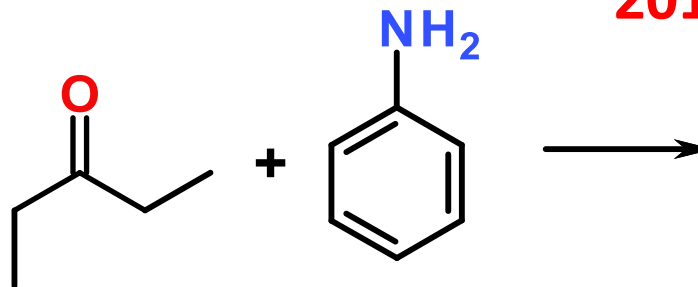
C



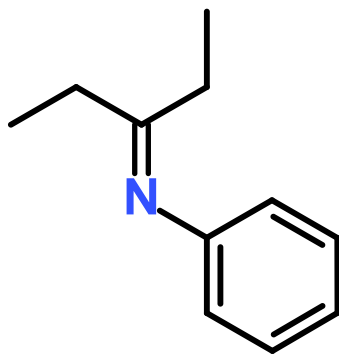
D

Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

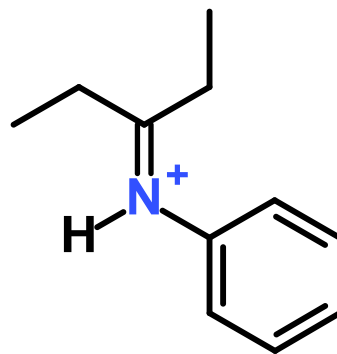
2016-10-21 Q4



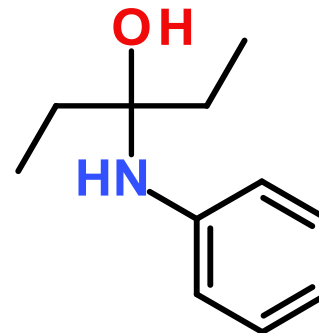
A



B



C

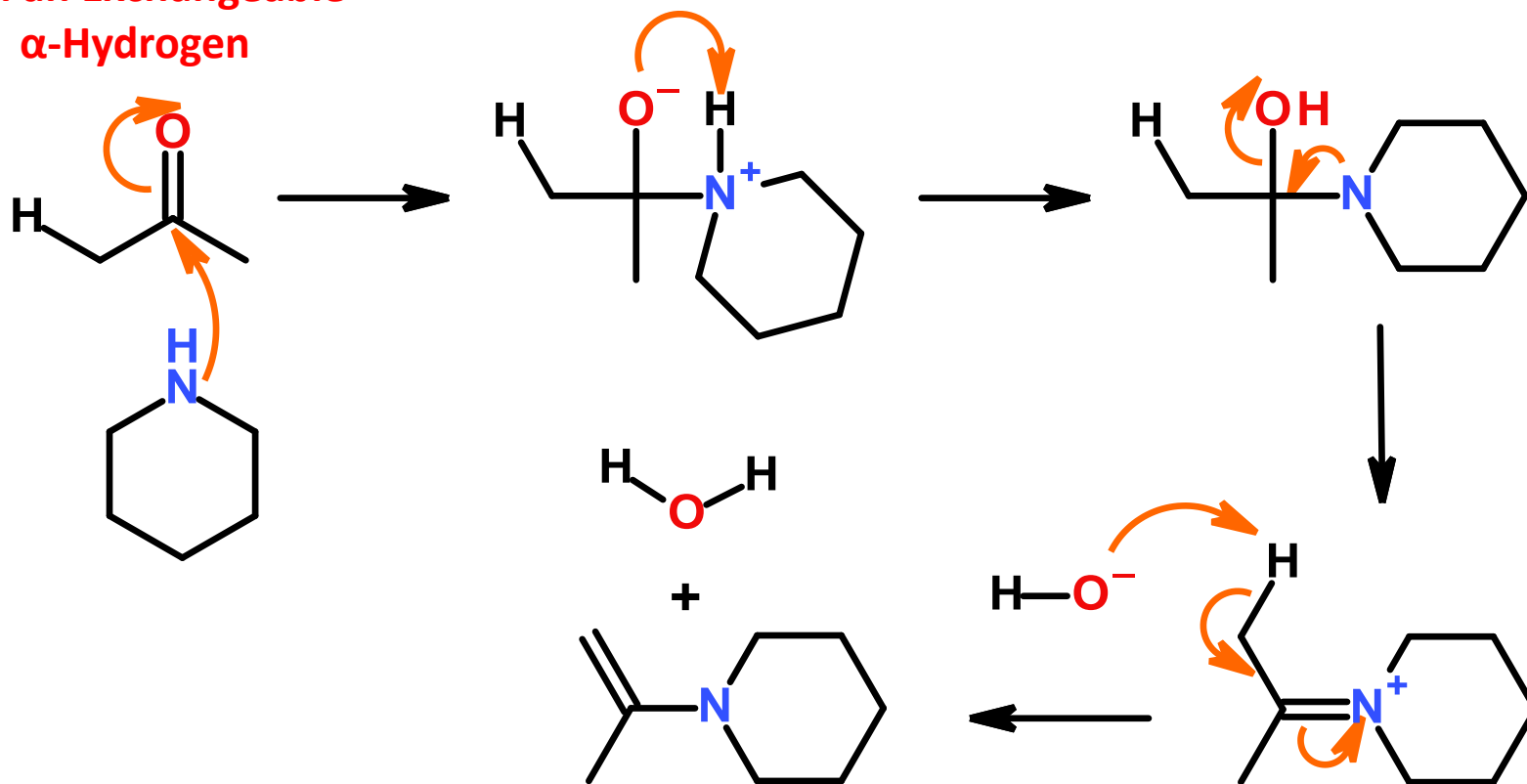


D

Correct Answer = adcb

Aldehydes and ketones with Secondary (2°) Amines

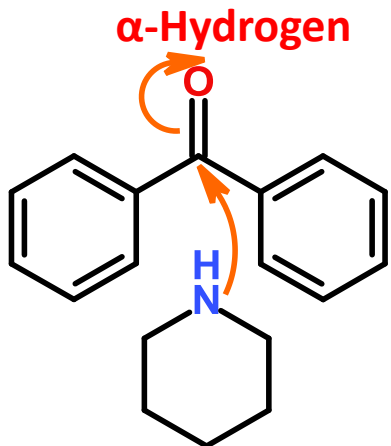
Aldehyde or Ketone
with an Exchangeable
 α -Hydrogen



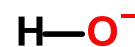
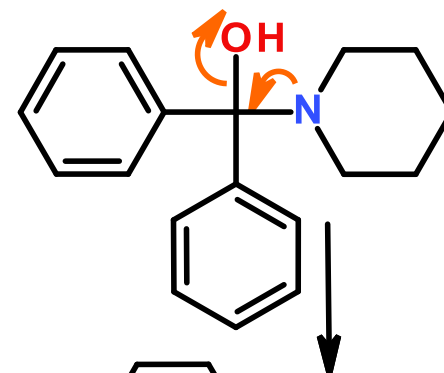
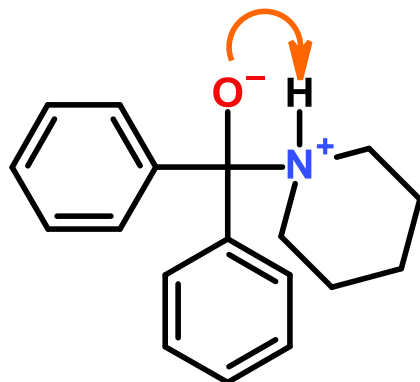
Enamine

Aldehydes and ketones with Secondary (2°) Amines

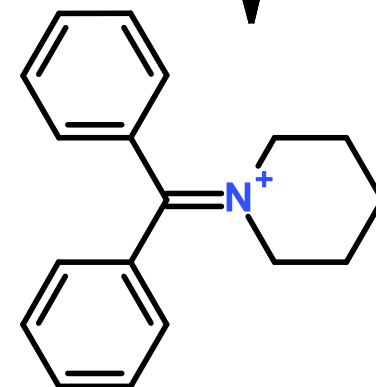
Aldehyde or Ketone
with NO Exchangeable
 α -Hydrogen



No Reaction!

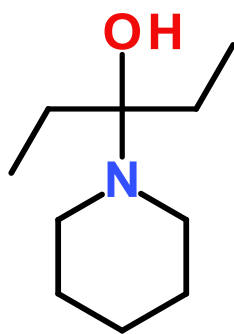
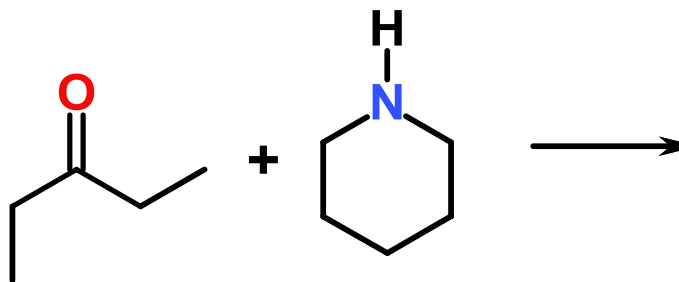


**Dead End: No
further reaction**

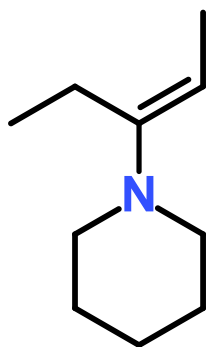


Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

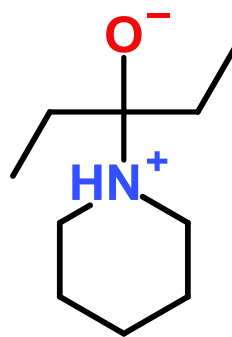
2016-10-21 Q5



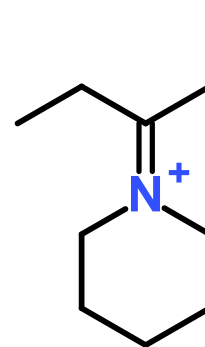
A



B



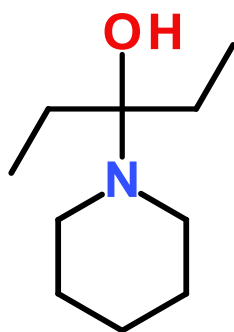
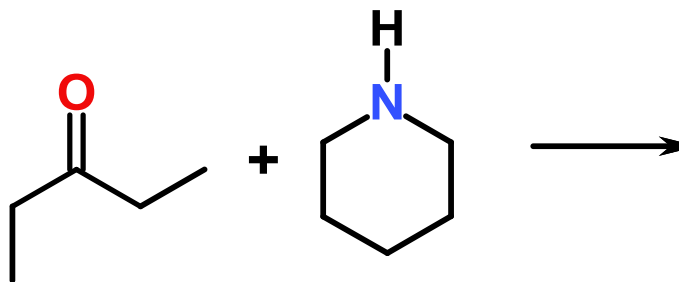
C



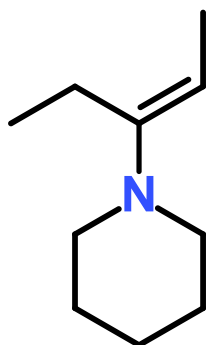
D

Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

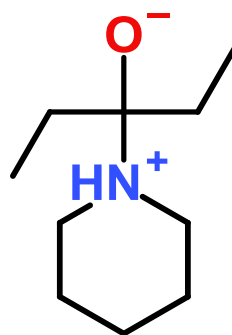
2016-10-21 Q5



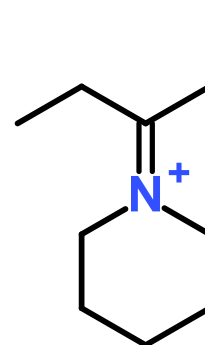
A



B



C



D

Correct Answer = cadb