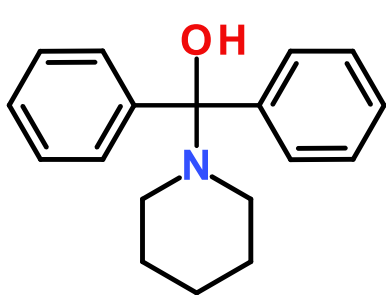
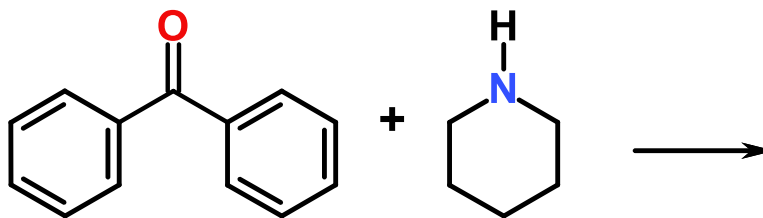
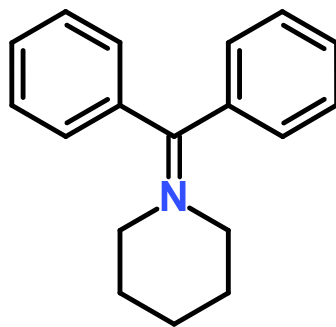


Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

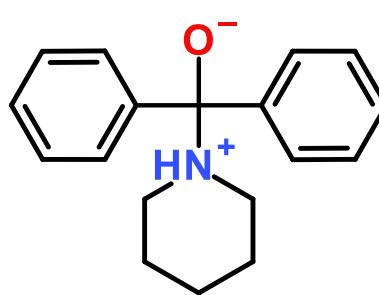
2016-10-24 Q1



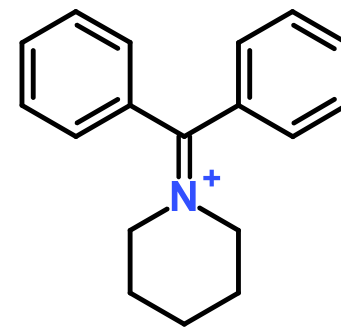
A



B



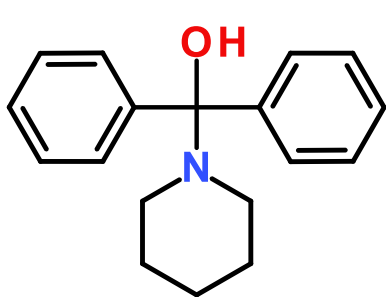
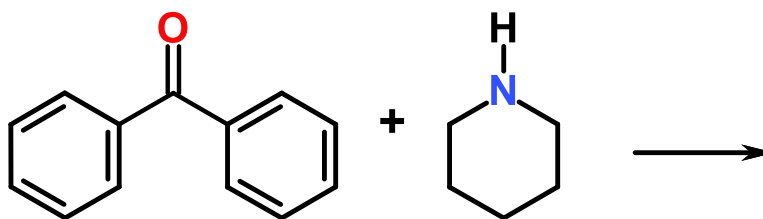
C



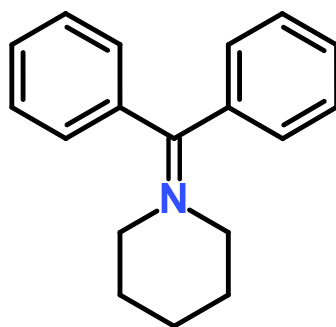
D

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)

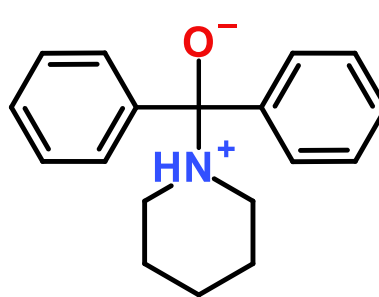
2016-10-24 Q1



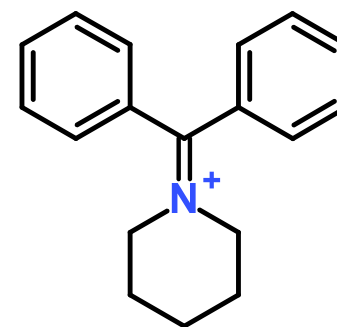
A



B



C



D

Answer = CAD OR CADAC

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

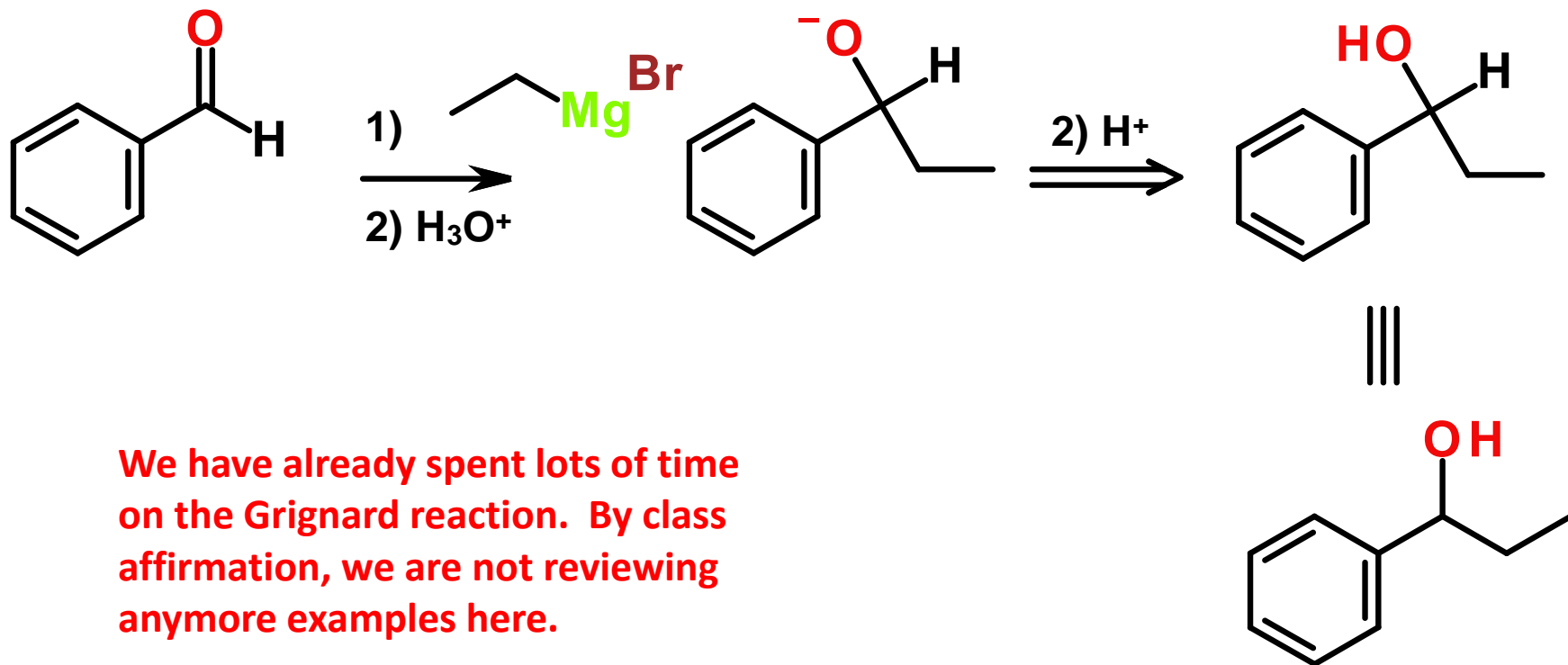
Exam 3
Lecture
Planning

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

Aldehydes and Ketones with C-Nucleophiles

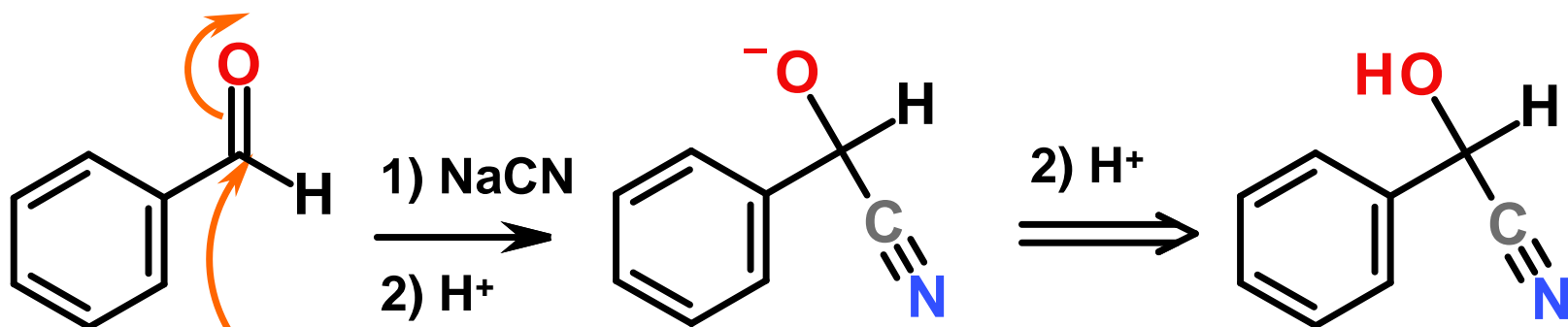
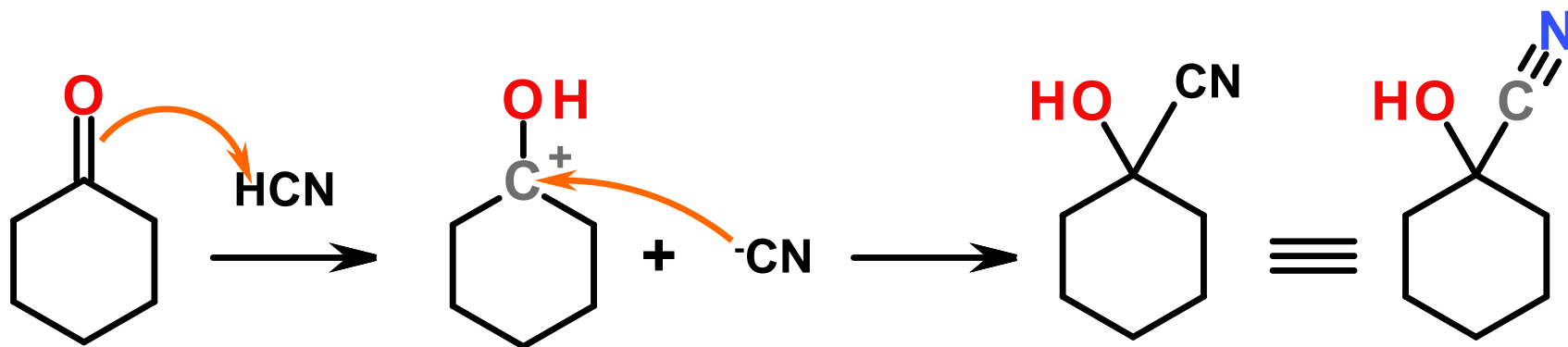
- Grignard Reactions
- HCN additions and their implications
 - Carboxylic Acid Formation
 - Amine Formation
- Wittig Reaction

Aldehydes and Ketones with Grignard Reagents



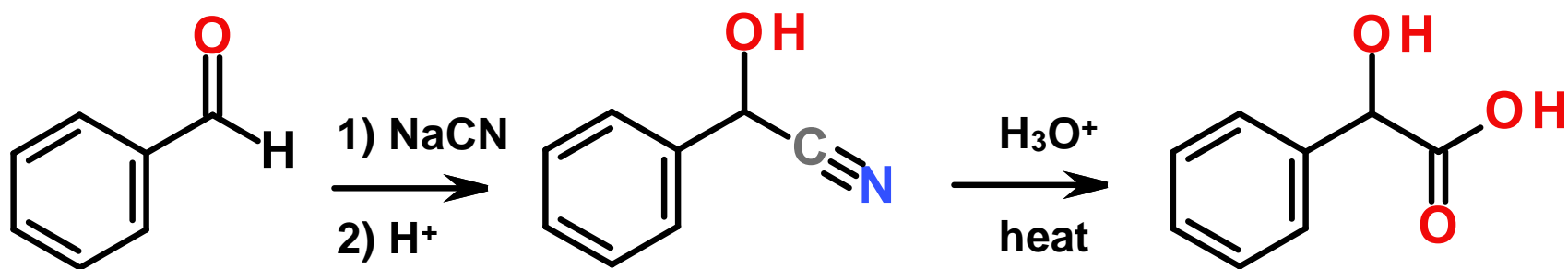
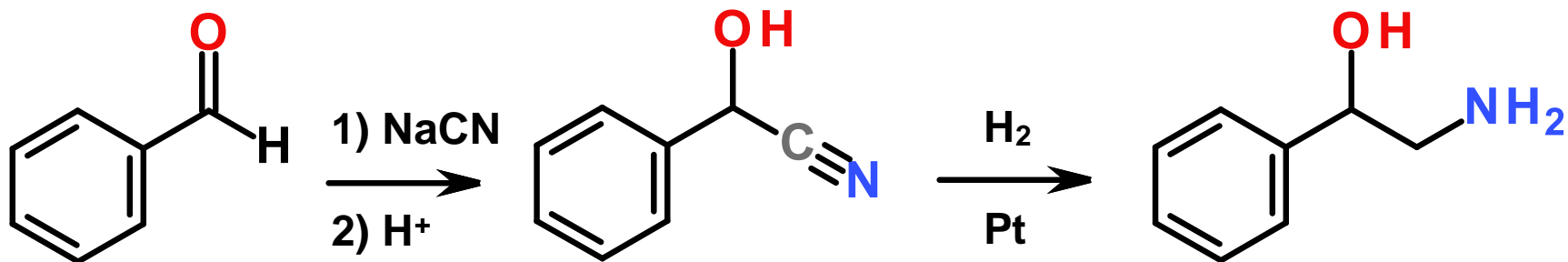
As drawn in WE_LEARN

Aldehyde and Ketone Reactions with HCN

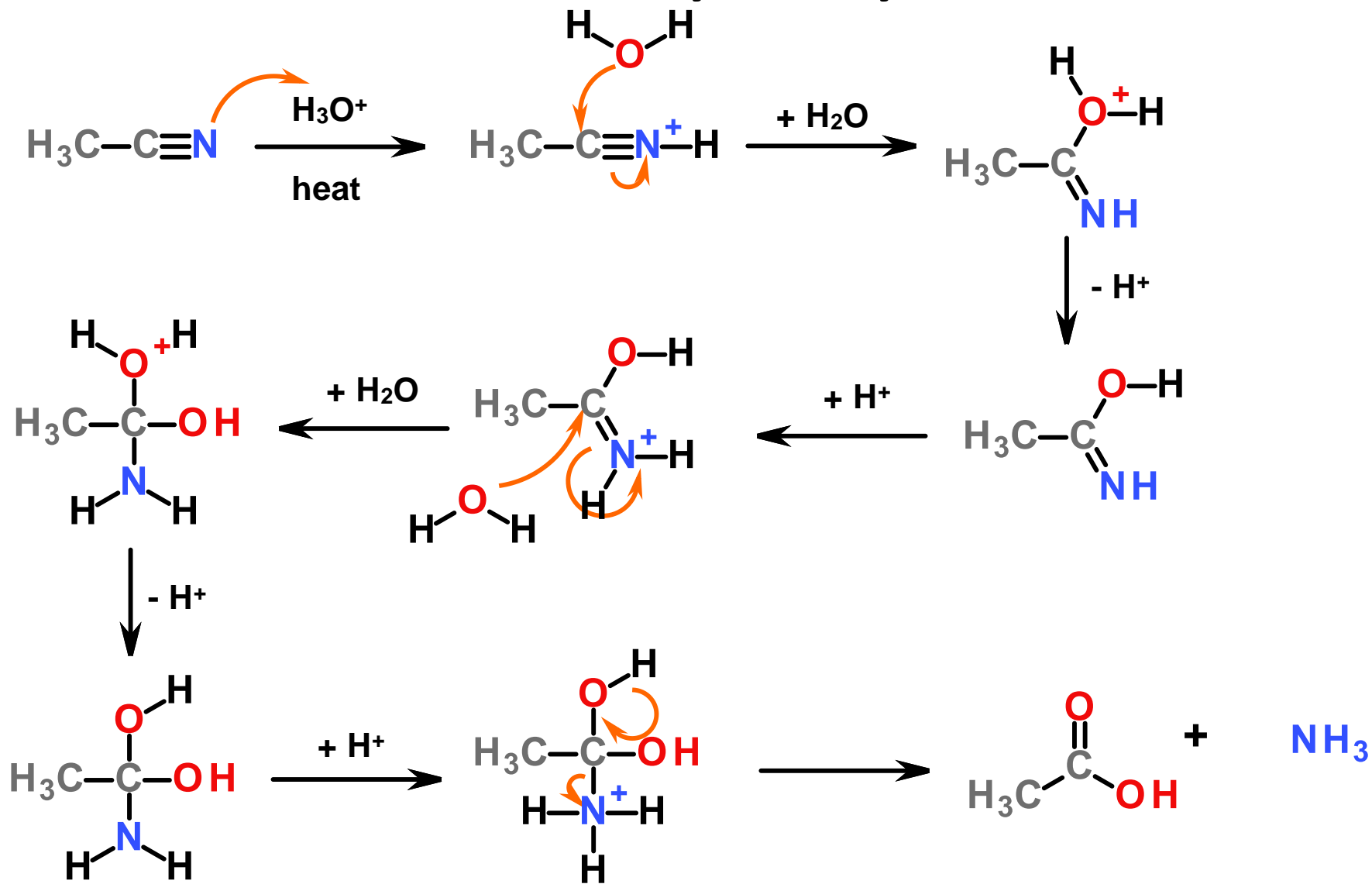


HOCEN
Cyanohydrin

Implications of HCN Addition: Chain Elongation

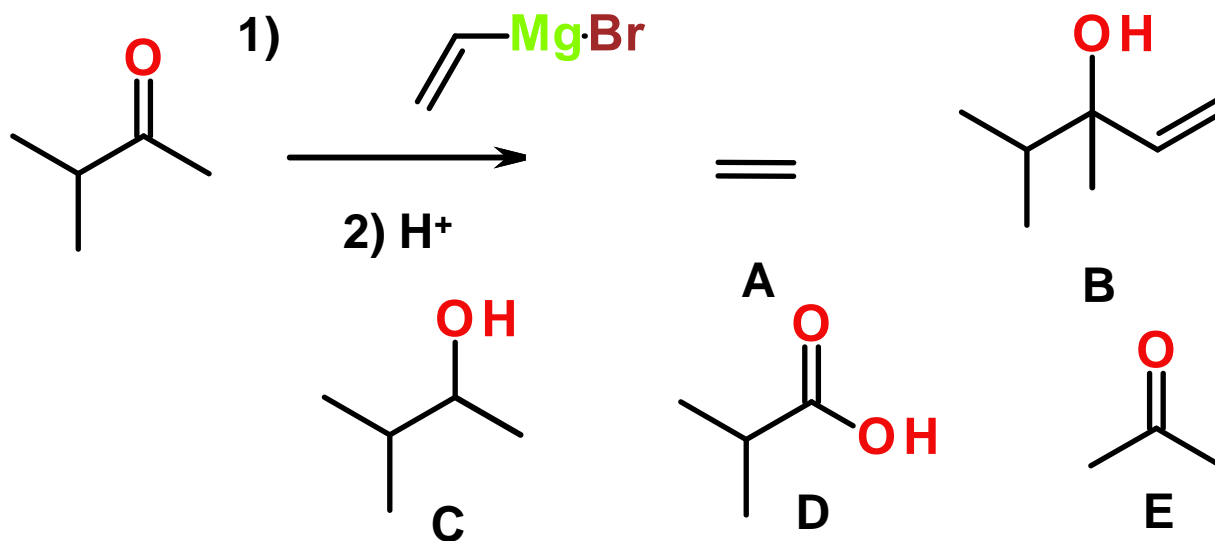


Nitrile Hydrolysis



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

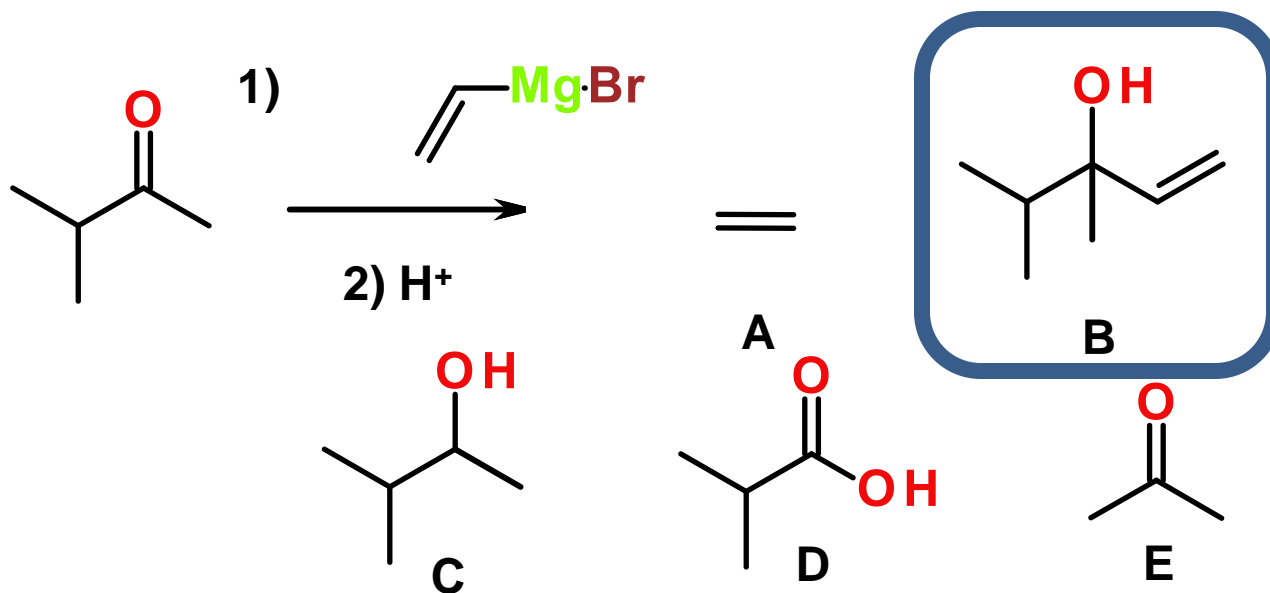
2016-10-24 Q2



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

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

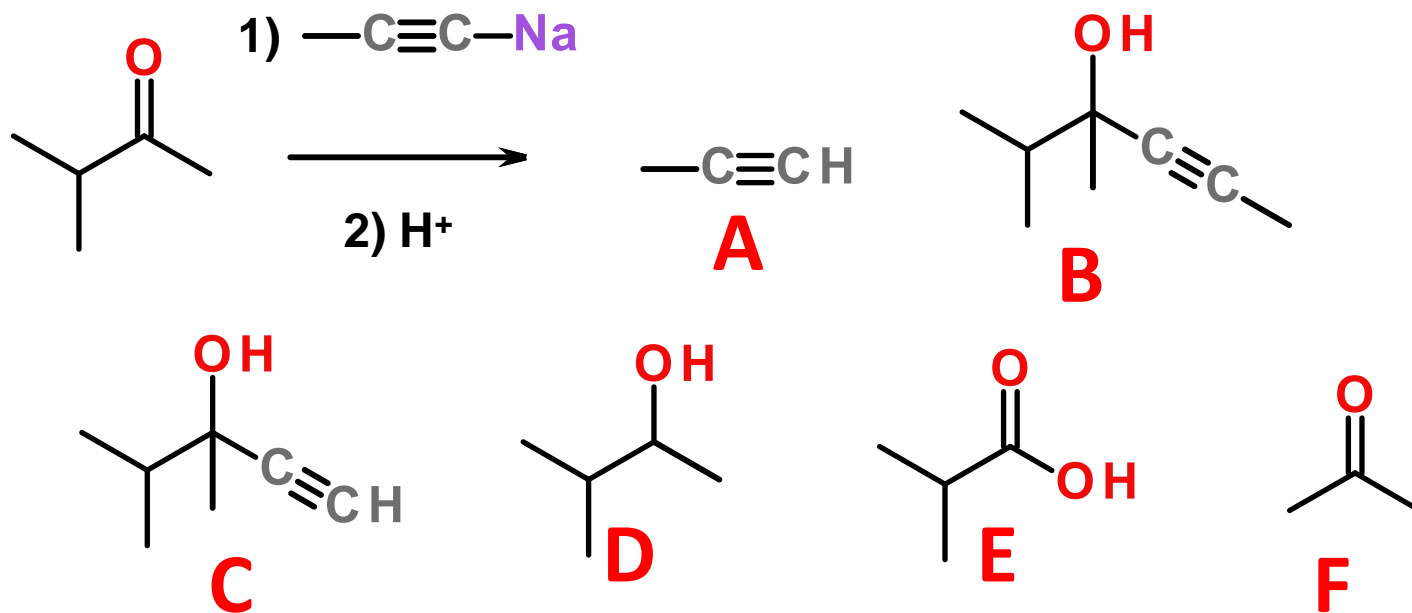
2016-10-24 Q2



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

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

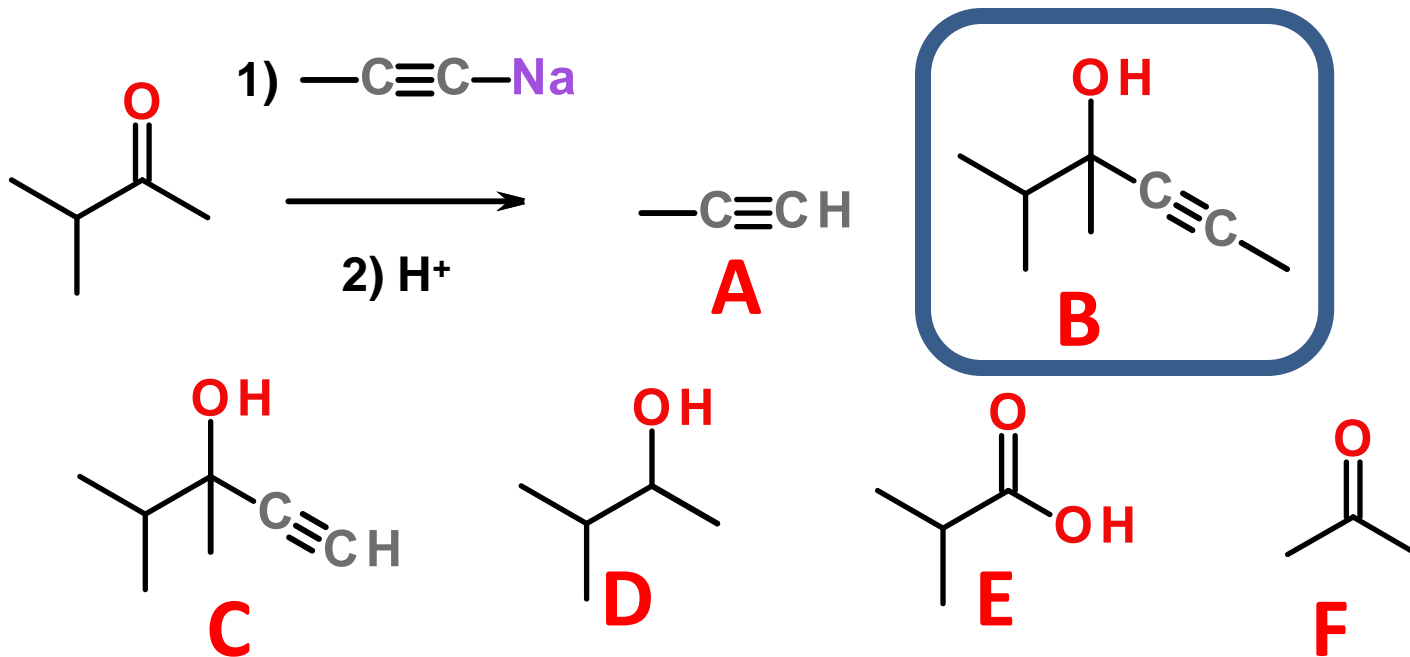
2016-10-24 Q3



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

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

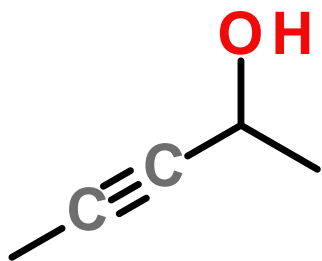
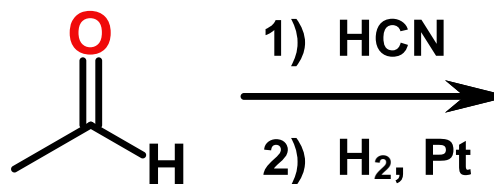
2016-10-24 Q3



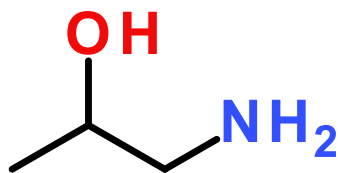
F - None of these products are a major product of the reaction that is shown.

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)

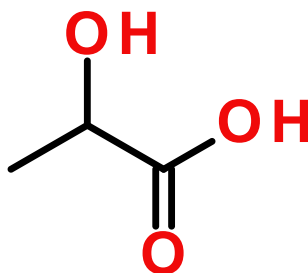
2016-10-24 Q6



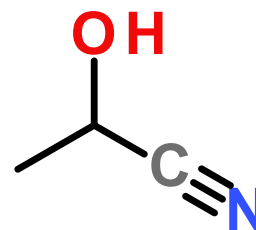
A



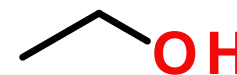
B



C



D

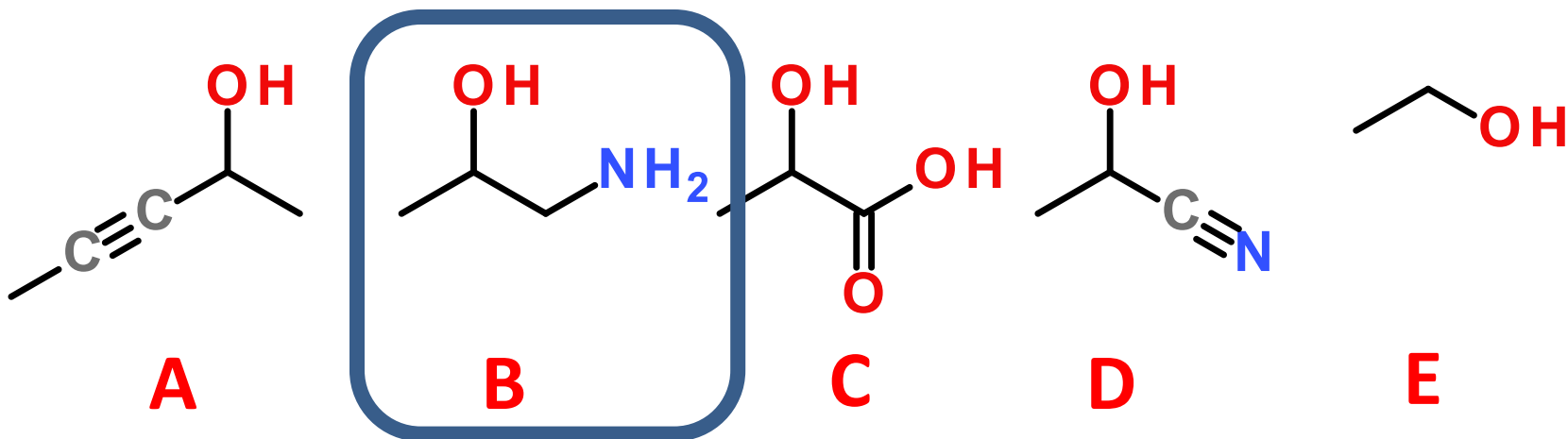
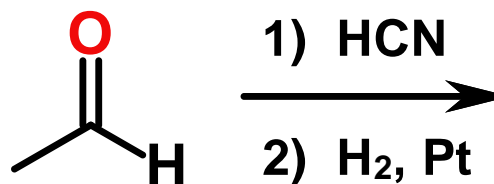


E

F - 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)

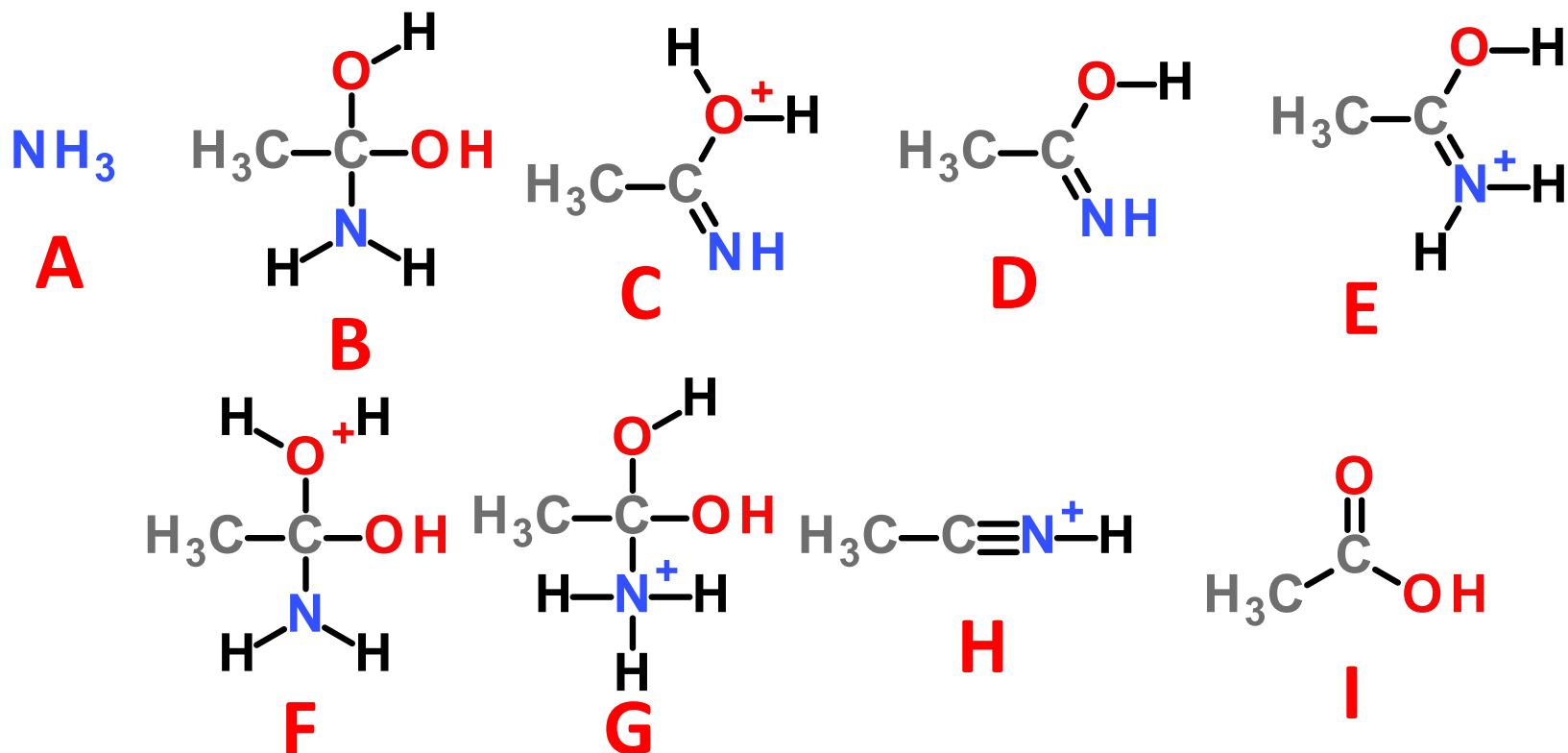
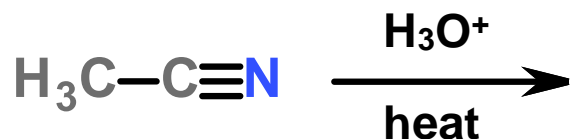
2016-10-24 Q6



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

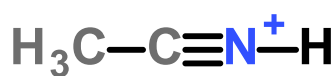
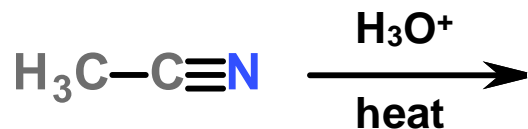
Think about this reaction in terms of mechanism. All of the intermediates of the reaction are provided. Give the intermediates in order of their appearance along the reaction coordinate. (Example: xxxx ab)

2016-10-24 Q7

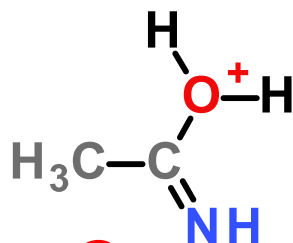


Correct Answer

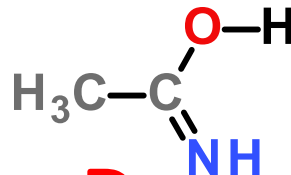
2016-10-24 Q7
correct answer



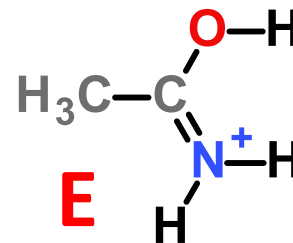
H



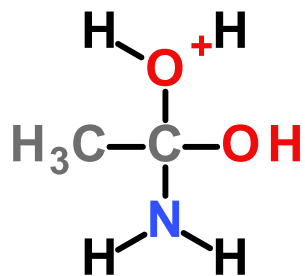
C



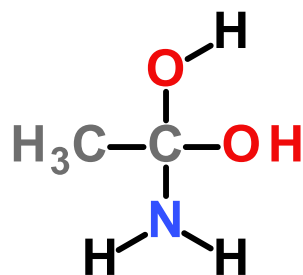
D



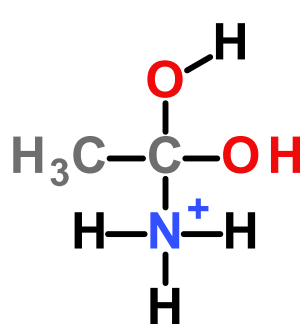
E



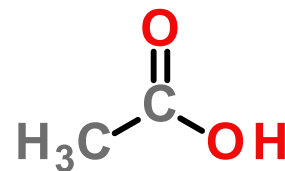
F



B



G



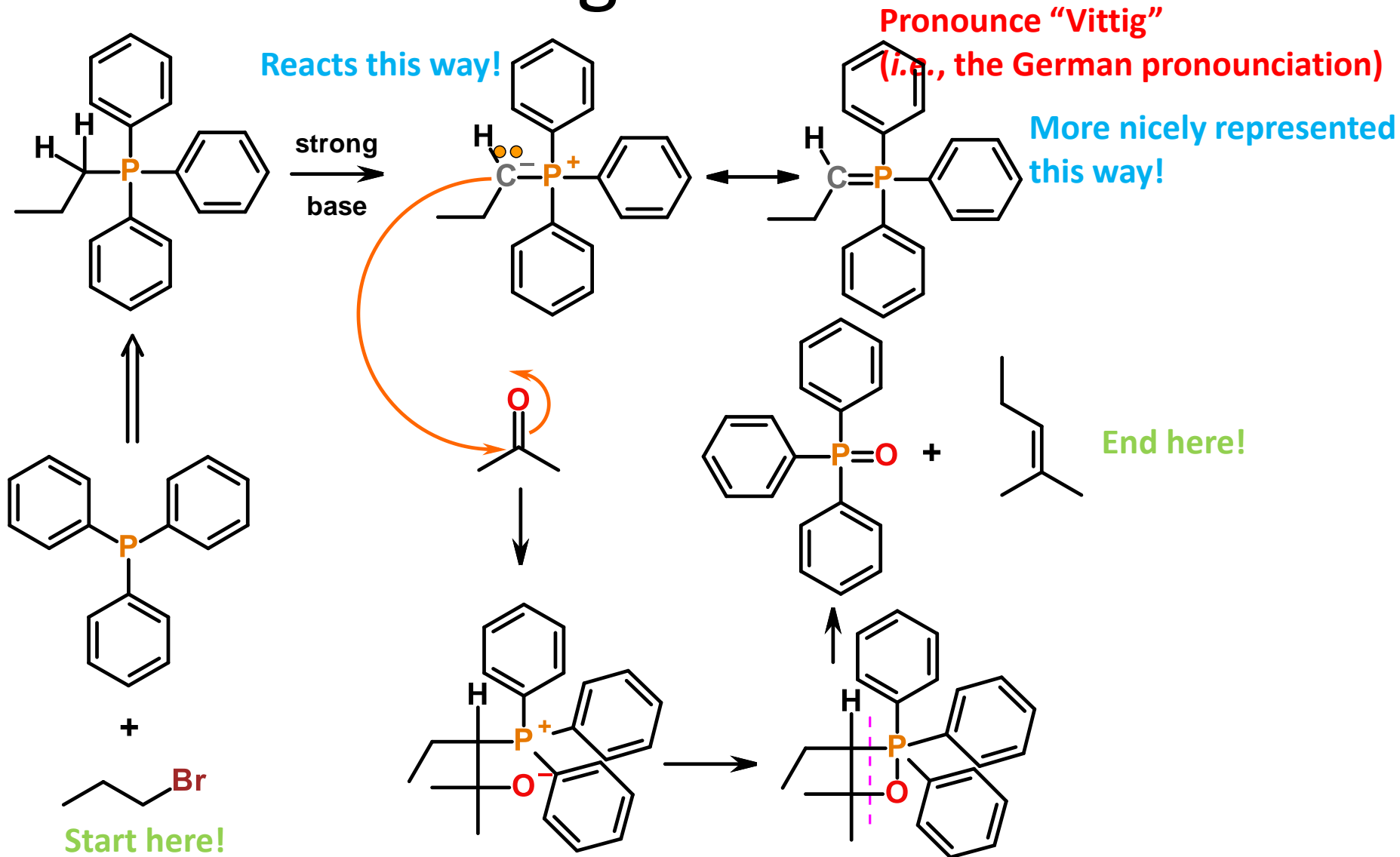
I



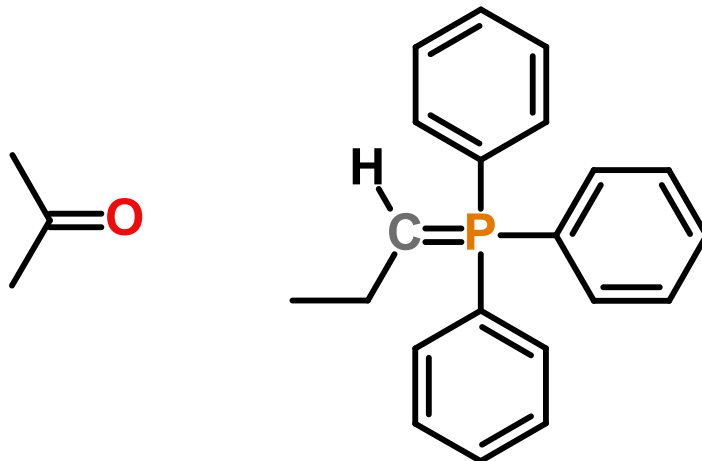
A

Correct answer: HCDEFBGAI

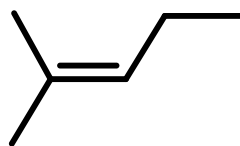
Wittig Reaction



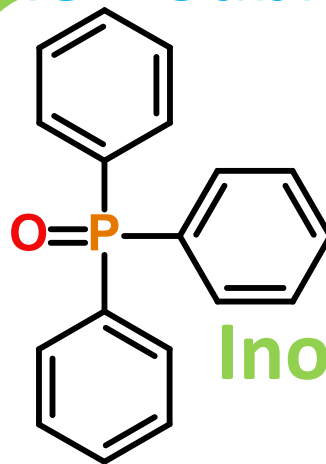
Simplified View of the Wittig Reaction



Trade Ends of the Double Bonds!



Cis preferred, when
there is a choice



Inorganic Product!
Ignore!