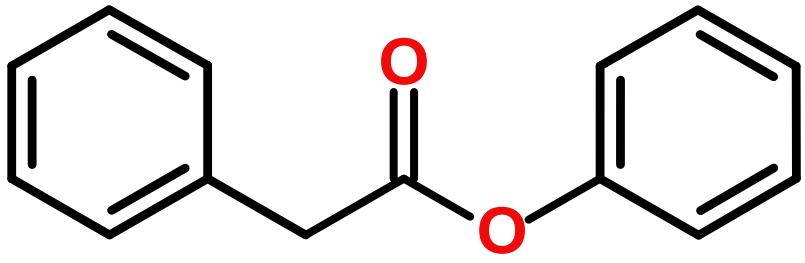
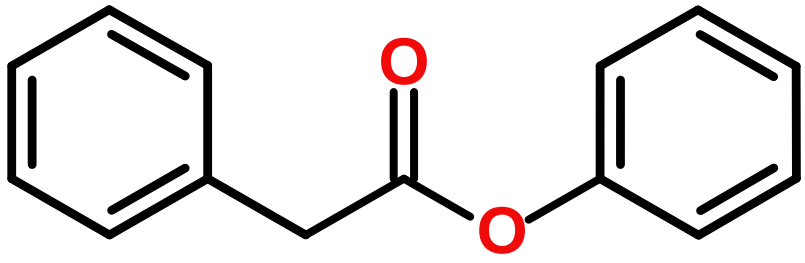
Give a common name for the following compound. 2016-10-07 Q1

A. Benzyl Phenoate
B. Phenyl Phenoate
C. Benzyl Benzoate
D. Phenyl Benzoate
E. Phenyl Phenylacetate
F. Phenyl Phenylethanoate
G. Phenyl Benzylacetate



Give a common name for the following compound. 2016-10-07 Q1



A. Benzyl Phenoate
B. Phenyl Phenoate
C. Benzyl Benzoate
D. Phenyl Benzoate
E. Phenyl Phenylacetate
F. Phenyl Phenylethanoate
G. Phenyl Benzylacetate

Exam 2

- **Time:**
  - **Tuesday, October 18: 7:00 – 9:00PM OR**
  - **Wednesday, October 19: 7:00 – 9:00PM OR**
  - **Thursday, October 20: 7:00 – 10:00PM**
- **Location – Soc/Anthro Testing Center**
  - Chapters will be covered in this order: Chapter 19, 12
- **Practice Exams are Posted**
  - Ex2-14-98 Practice Exam 2A
  - Ex2-14-98 Practice Exam 2B
- **Deadline for alternate arrangements is Monday, 10/17/2016 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**

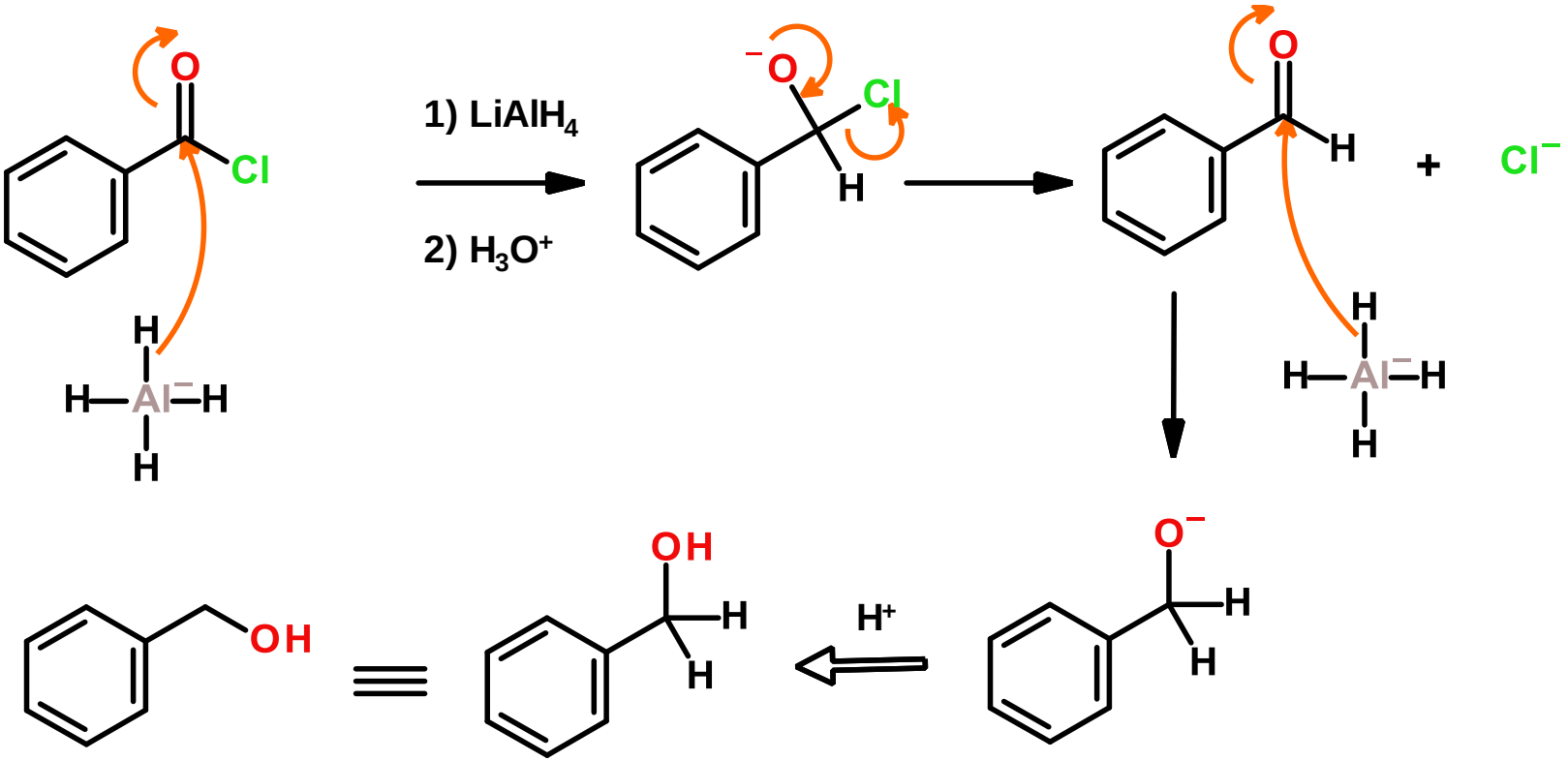
Order of Coverage (Exam 2)

	Homework Assignment	Due Date
13	Ex2-07-B7-12-03A Carbox Acid Rxns	Thursday, October 6, 2016
14	Ex2-07-B7-12-03B Carbox Acid Rxns	Friday, October 7, 2016
15	Ex2-08-B7-12-04A Naming Carbox Acid Derivatives	Saturday, October 8, 2016
16	Ex2-08-B7-12-04B Naming Carbox Acid Derivatives	Sunday, October 9, 2016
17	Ex2-09-B7-12-05A Rxns Acid Chlorides	Monday, October 10, 2016
18	Ex2-09-B7-12-05B Rxns Acid Chlorides	Tuesday, October 11, 2016
19	Ex2-10-B7-12-06A Rxns Esters	Wednesday, October 12, 2016
20	Ex2-10-B7-12-06B Rxns Esters	Thursday, October 13, 2016
21	Ex2-11-B7-12-07A Rxns Amides	Friday, October 14, 2016
22	Ex2-11-B7-12-07B Rxns Amides	Saturday, October 15, 2016
23	Ex2-12-B7-12-08A Step Growth Polymers	Sunday, October 16, 2016
	Exam 2	**October 18, 19, 20**

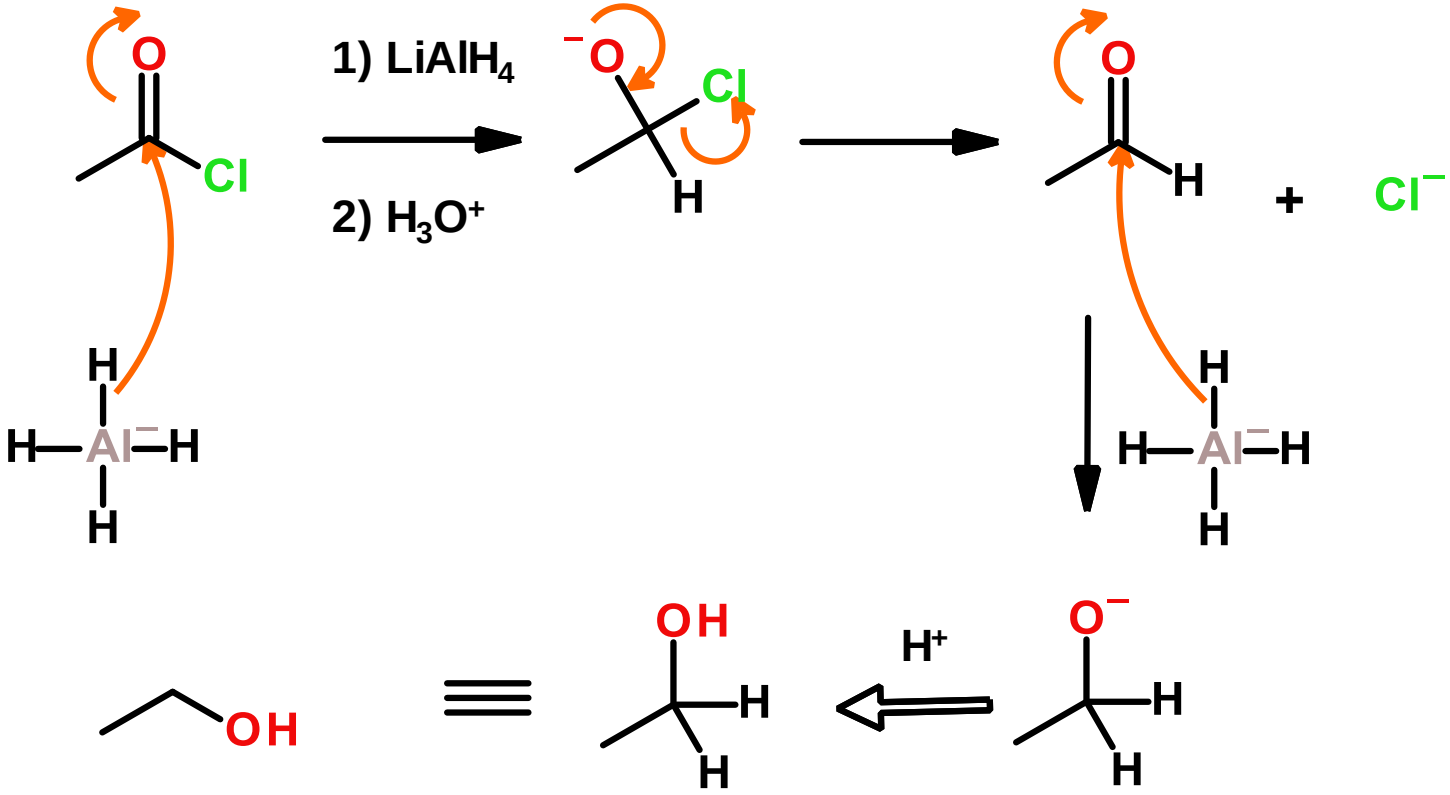
Reactions of Acid Chlorides

- Most reactive carboxylic acid derivative
- Addition of Nucleophiles!
  - $LiAlH_4$ (Similar to esters)
  - RMgBr (Similar to esters)
  - R_2CuLi (Stops at the ketone)
- Conversion into other carboxylic acids under all conditions
  - Base-catalyzed
  - Acid-catalyzed

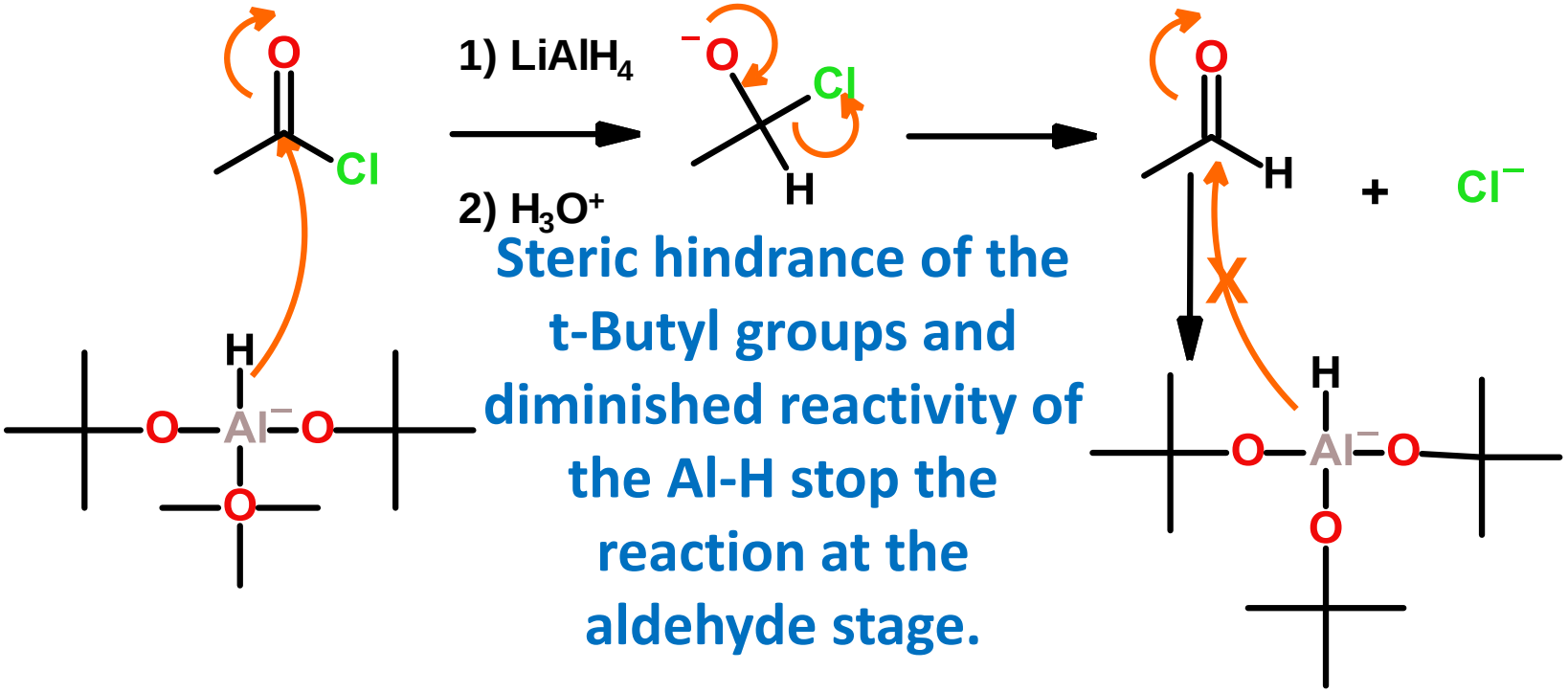
Acid Chlorides and $LiAlH_4$



2nd Example: Acid Chlorides and $LiAlH_4$



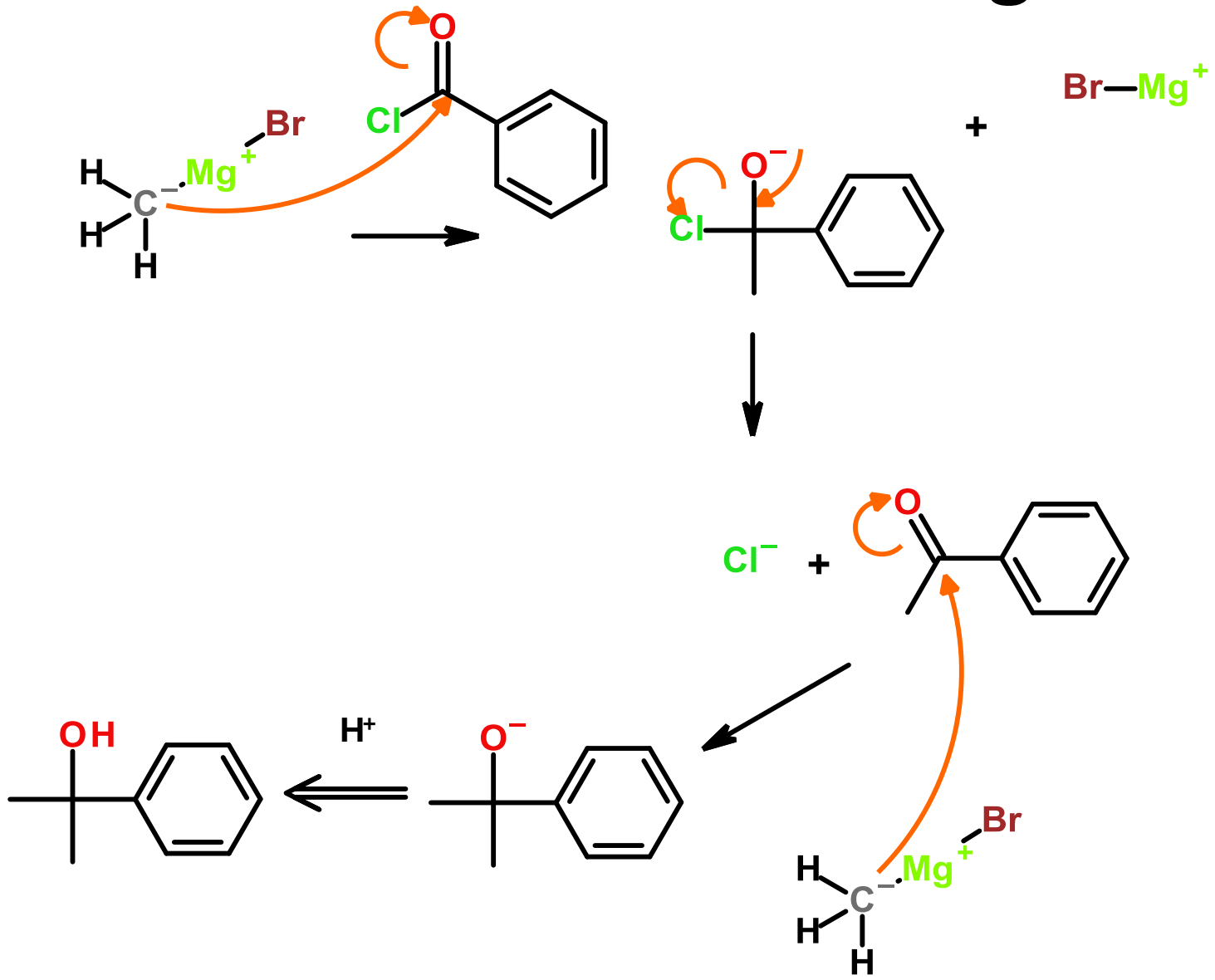
Acid Chlorides and Special $LiAlH_4$ Reagent



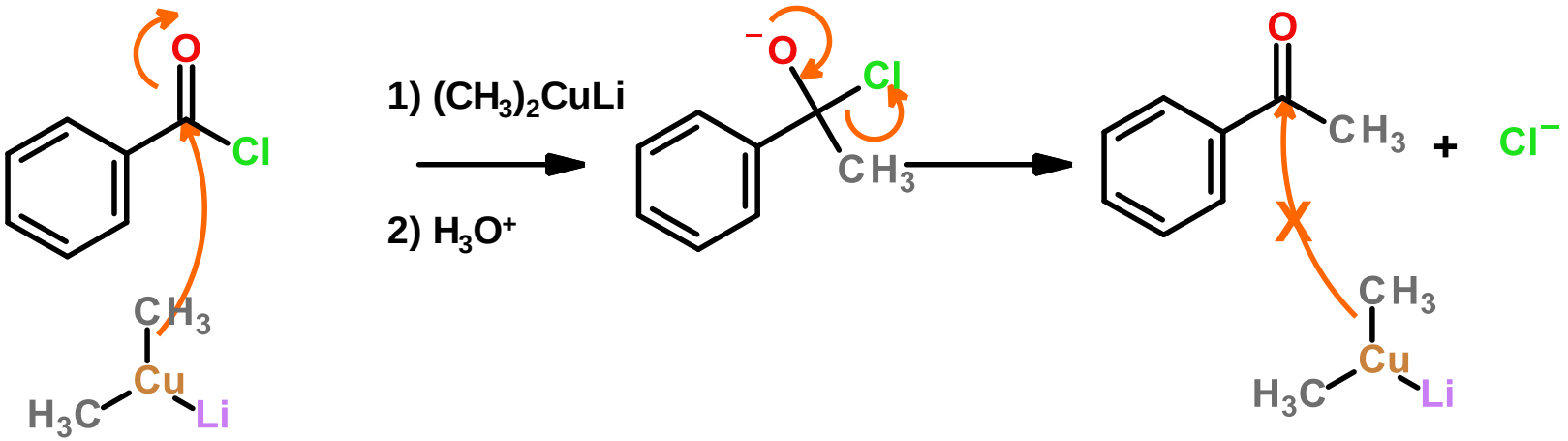
Steric hindrance of the t-Butyl groups and diminished reactivity of the Al-H stop the reaction at the aldehyde stage.

$LiAlH(OC(CH_3)_3$ stops at the aldehyde and does not react further!

Acid Chlorides and RMgBr

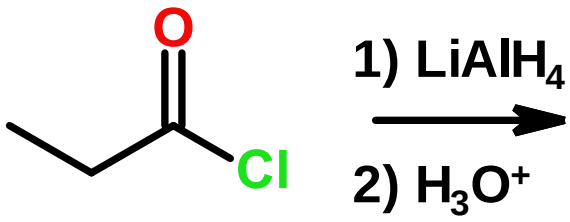


Acid Chlorides and R_2CuLi

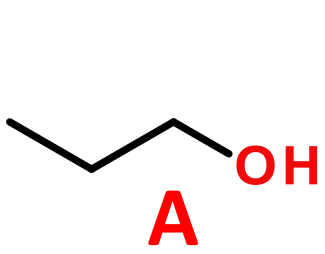


2nd addition does not occur, since the cuprate is not a hard enough base.

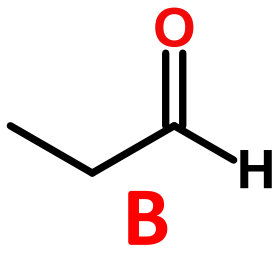
Give the major organic product(s) of the following reaction.



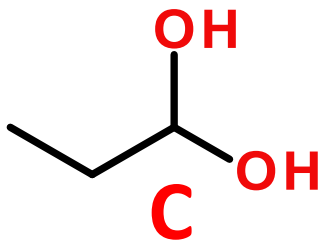
2016-10-07 Q2



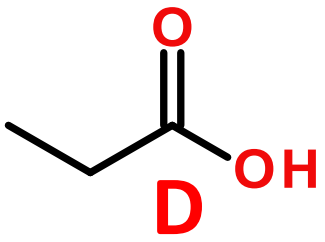
A



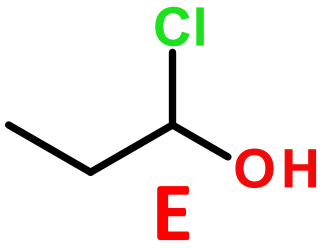
B



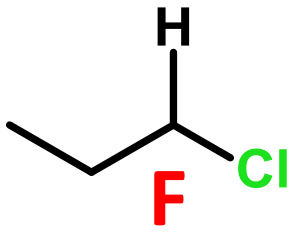
C



D



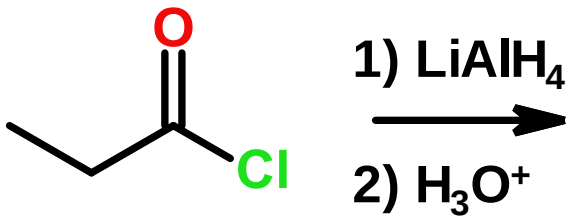
E



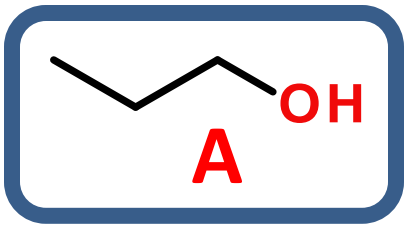
F

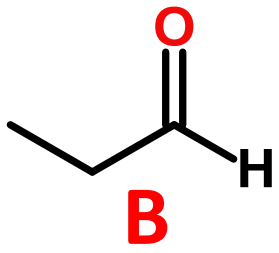
G. There is no reaction under these conditions or the correct product is not listed here.

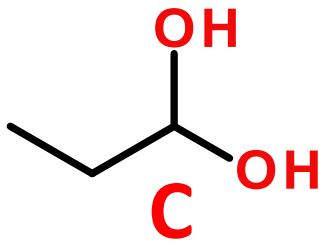
Give the major organic product(s) of the following reaction.

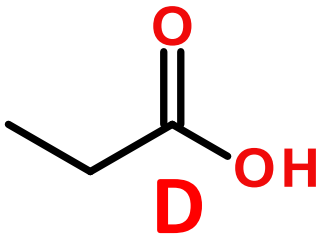


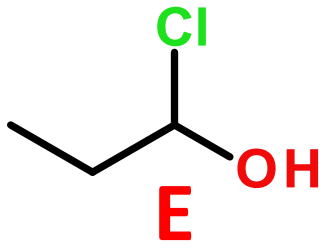
2016-10-07 Q2

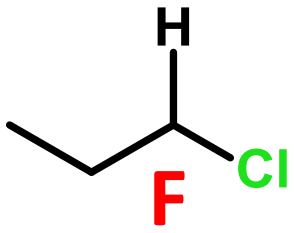






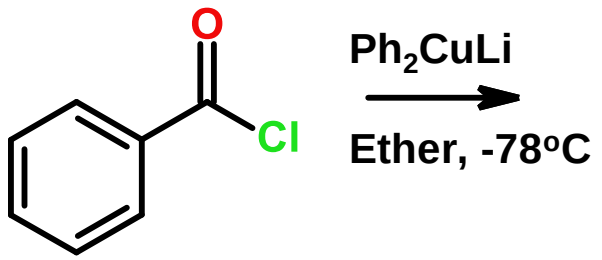




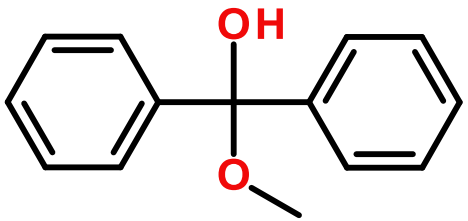


G. There is no reaction under these conditions or the correct product is not listed here.

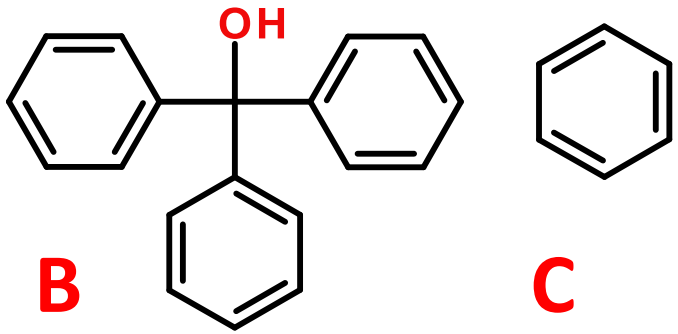
Give the major organic product(s) of the following reaction.



2016-10-07 Q3

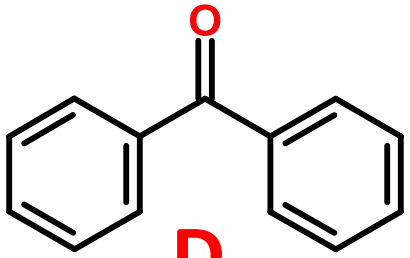


A

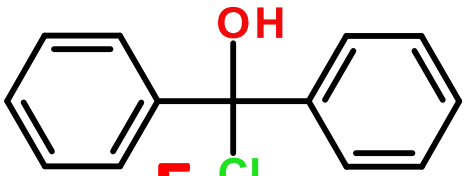


B

C



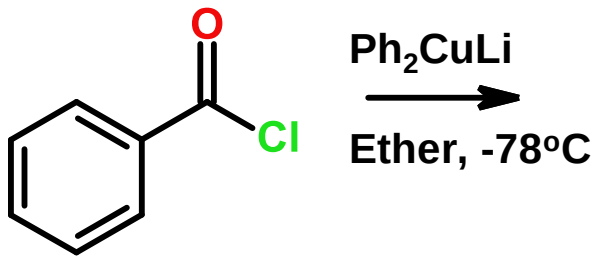
D



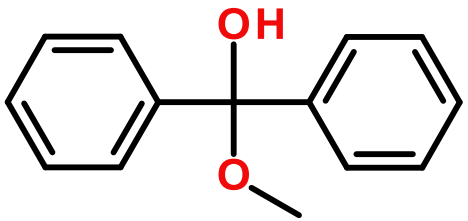
E

F. There is no reaction under these conditions or the correct product is not listed here.

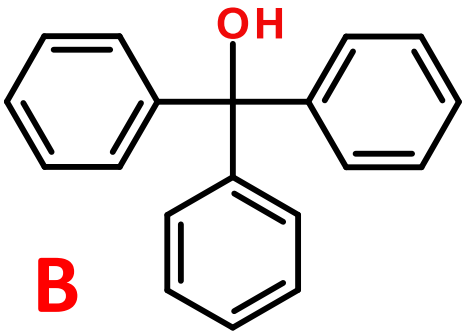
Give the major organic product(s) of the following reaction.



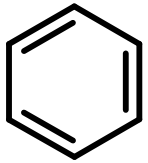
2016-10-07 Q3



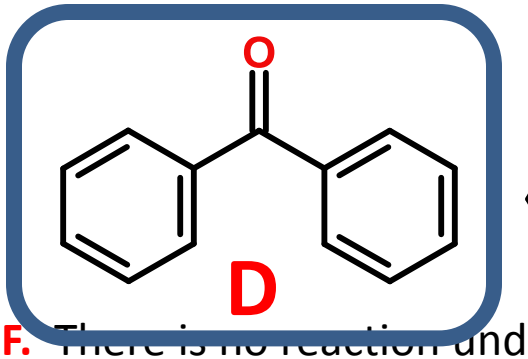
A



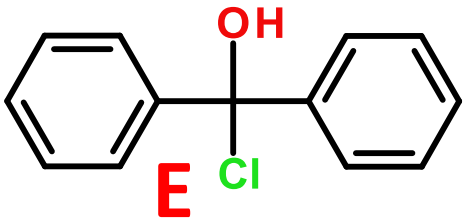
B



C



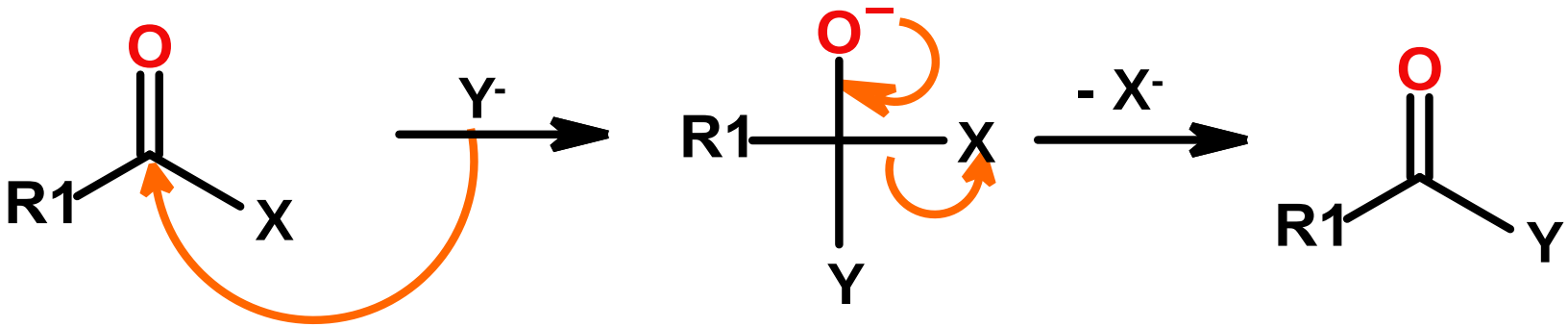
D



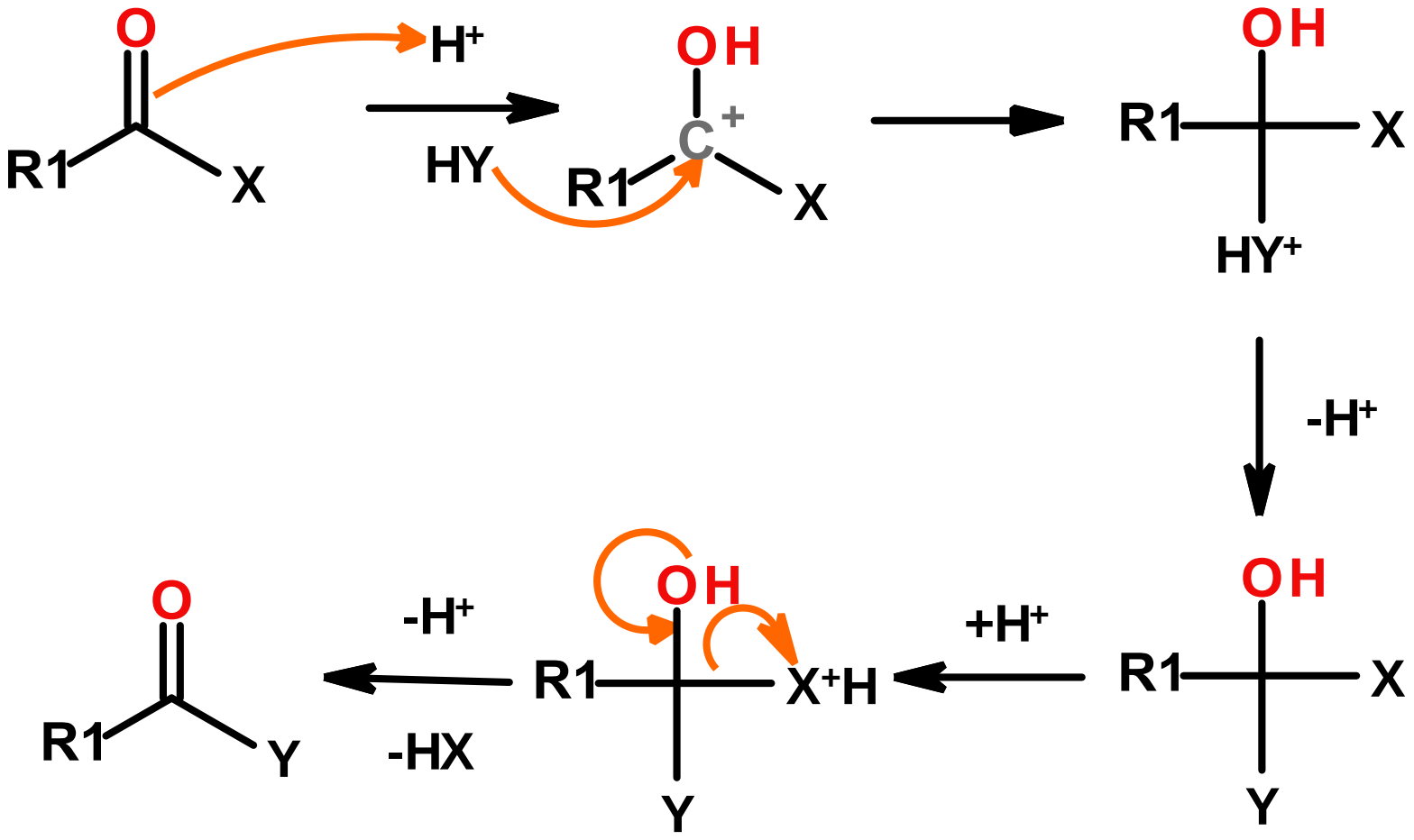
E

F. There is no reaction under these conditions or the correct product is not listed here.

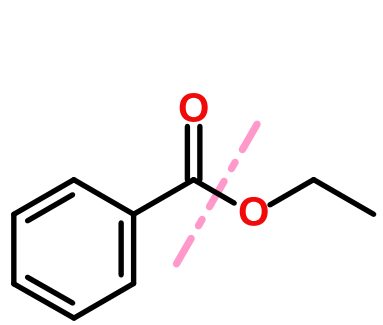
Base-Catalyzed Reactions of Carboxylic Acid Derivatives



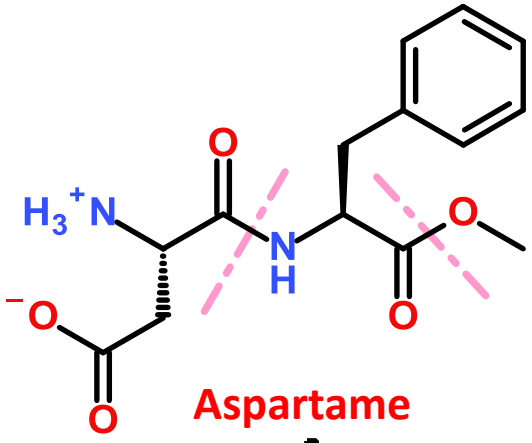
Acid-Catalyzed Reactions of Carboxylic Acid Derivatives



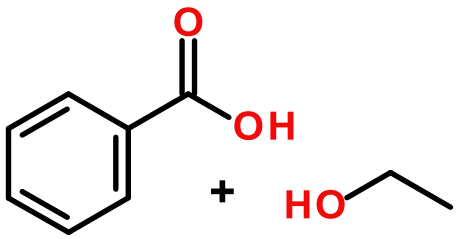
Carboxylic Acid Derivatives are a Mixture of a Carboxylic Acid and another Heteroatom.

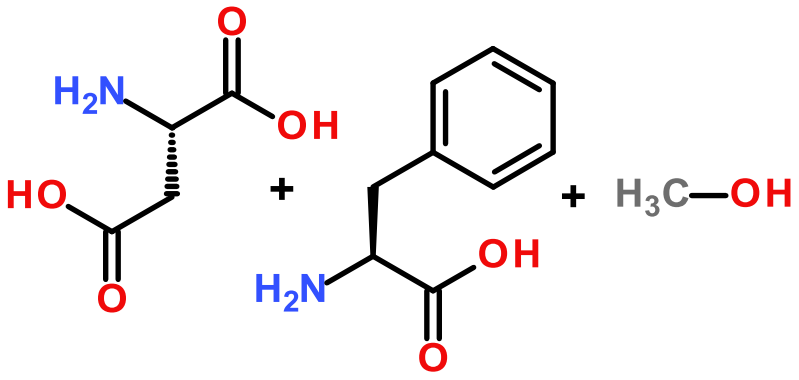


Ethyl Benzoate



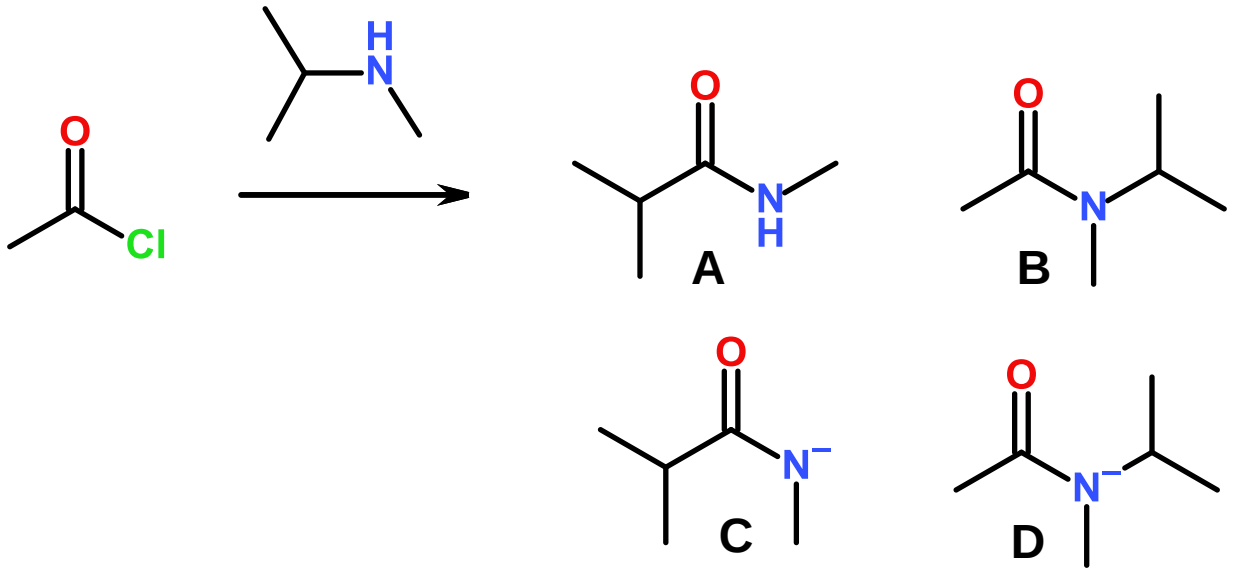
Aspartame





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)

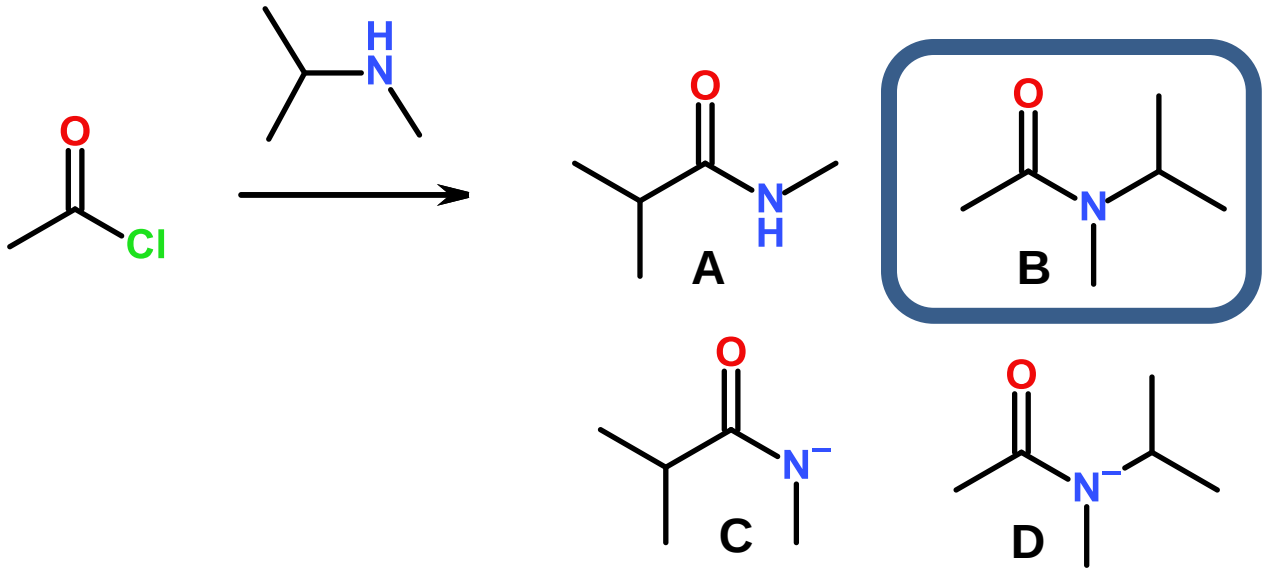
2016-10-07 Q4



E - 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)

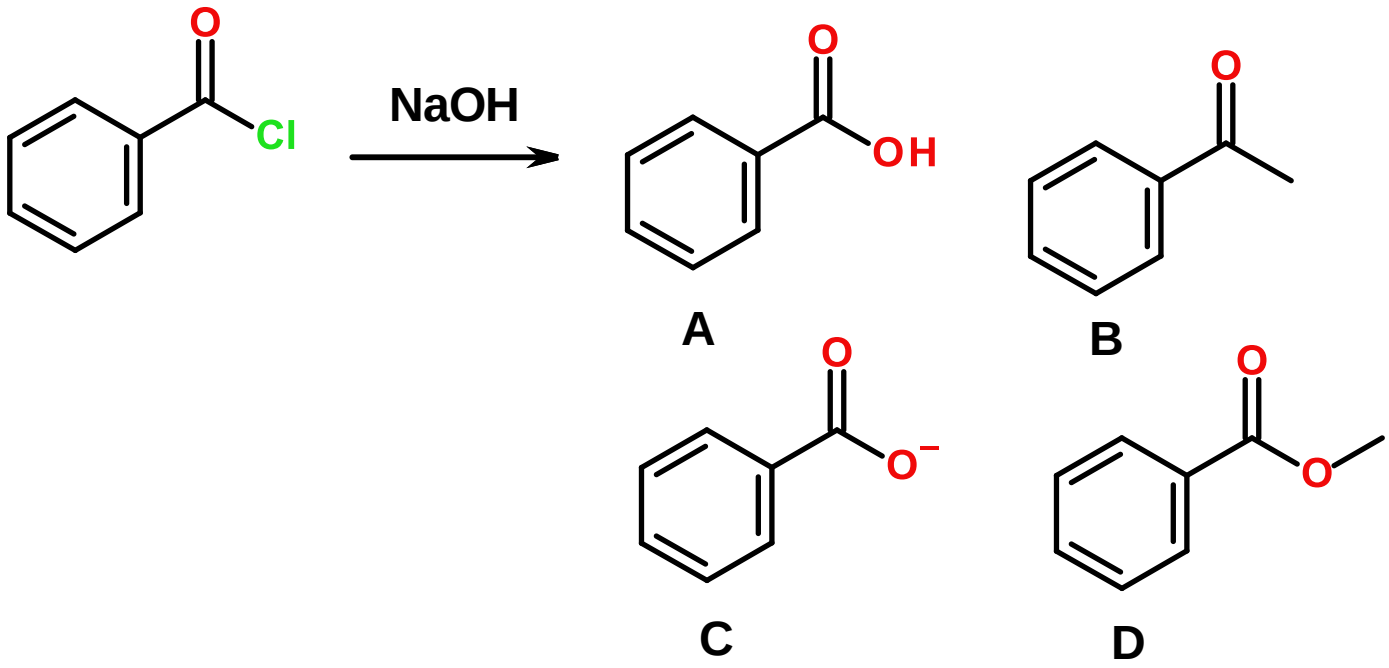
2016-10-07 Q4



E - 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)

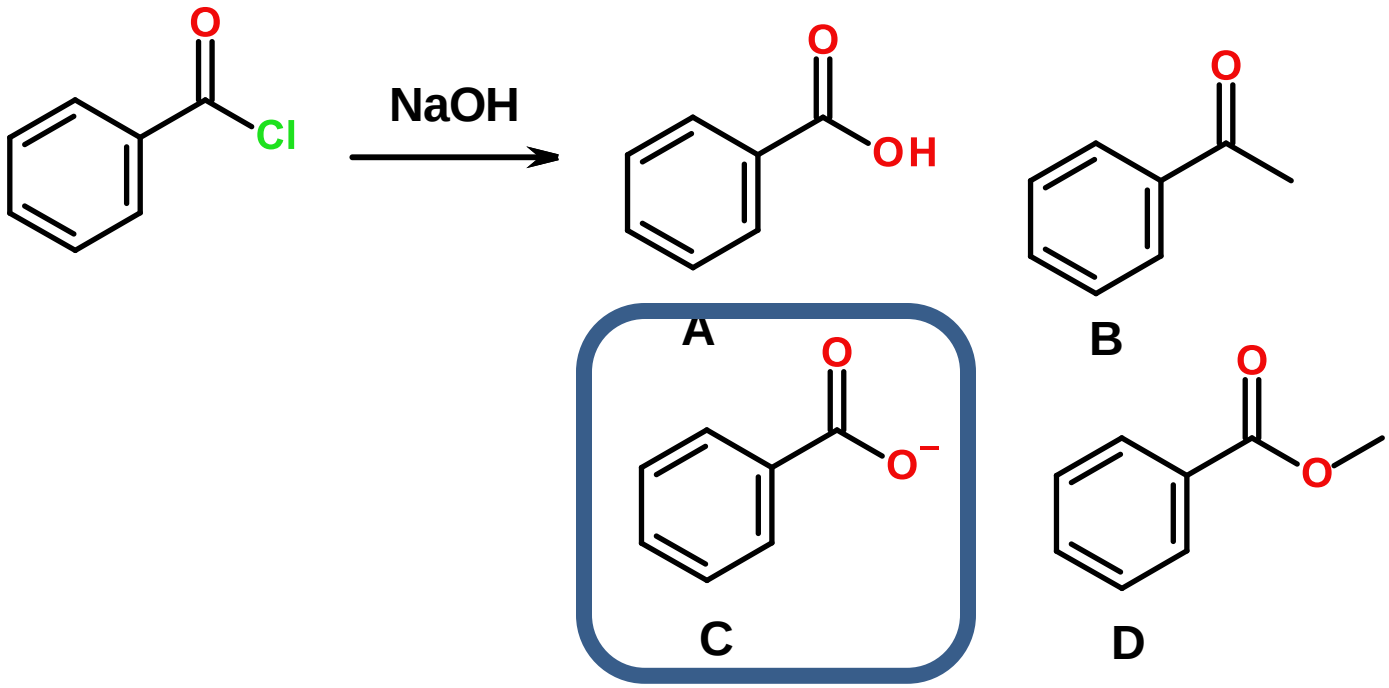
2016-10-07 Q5



E - 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)

2016-10-07 Q5



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