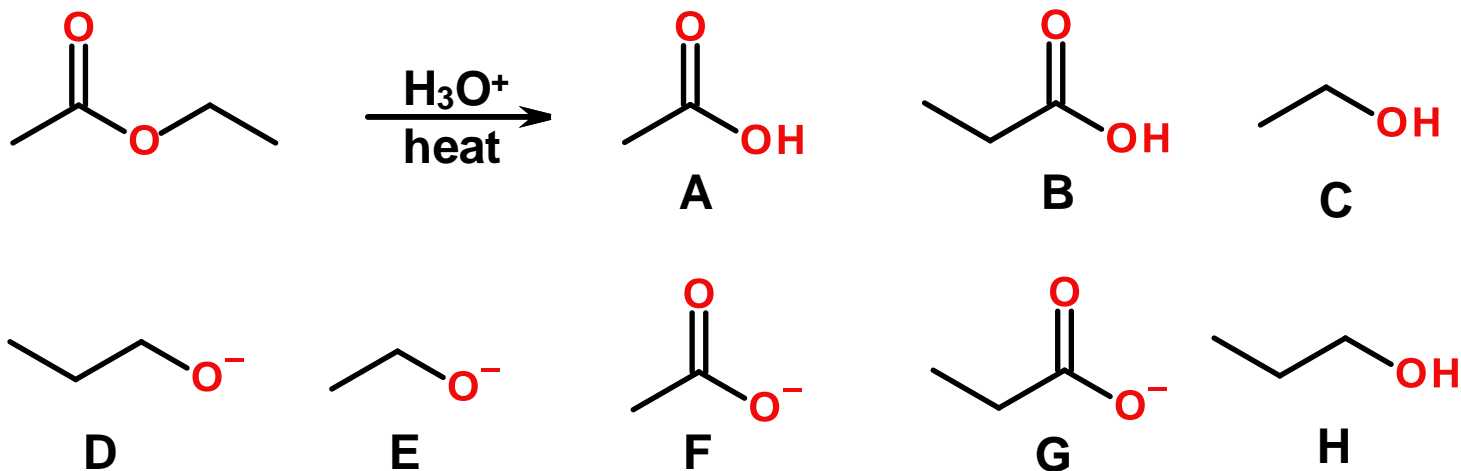


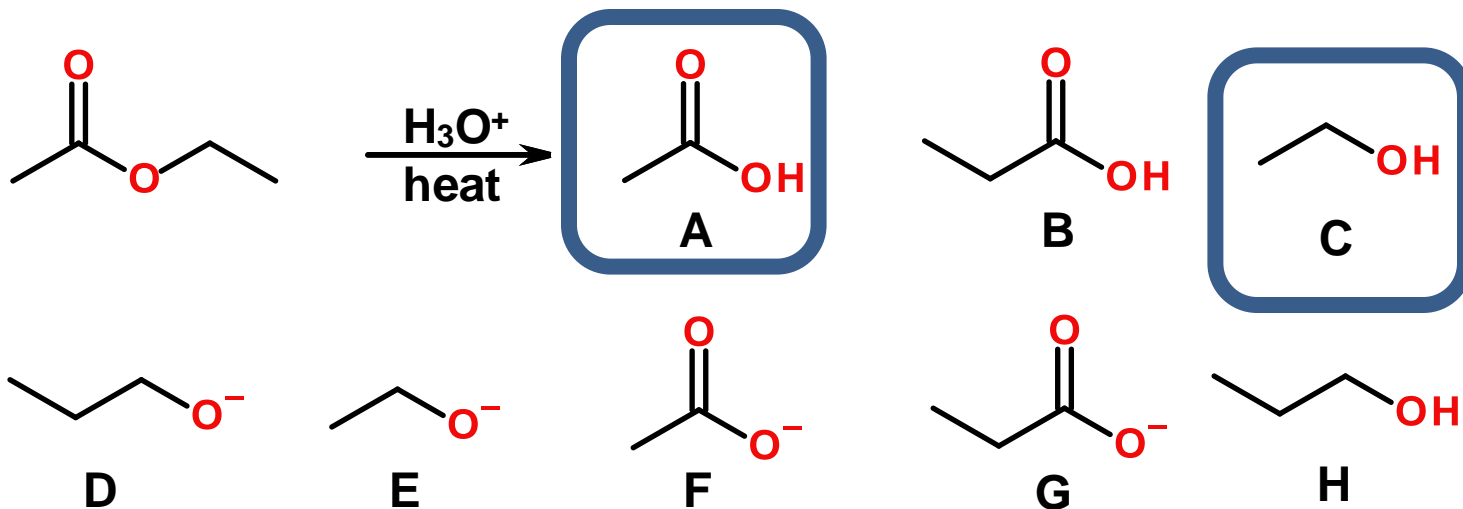
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx a b)



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

2016-10-14 Q1

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 a b)



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

2016-10-14 Q1

Exam 2

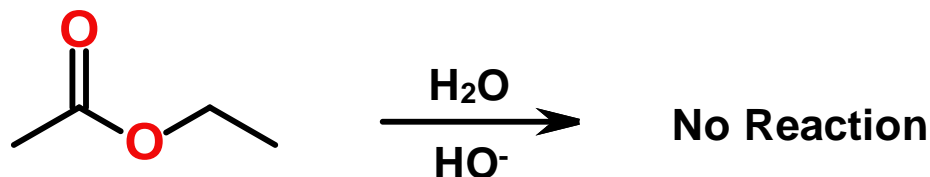
- **Time:**
 - Tuesday, October 18: 7:00 – 9:00PM OR
 - Wednesday, October 19: 7:00 – 9:00PM OR
 - Thursday, October 20: 7:00 – 10:00PM
- **Location – Soc/Anthro Testing Center**
 - Chapters will be covered in this order: Chapter 19, 12
- **Practice Exams are Posted**
 - Ex2-14-98 Practice Exam 2A
 -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

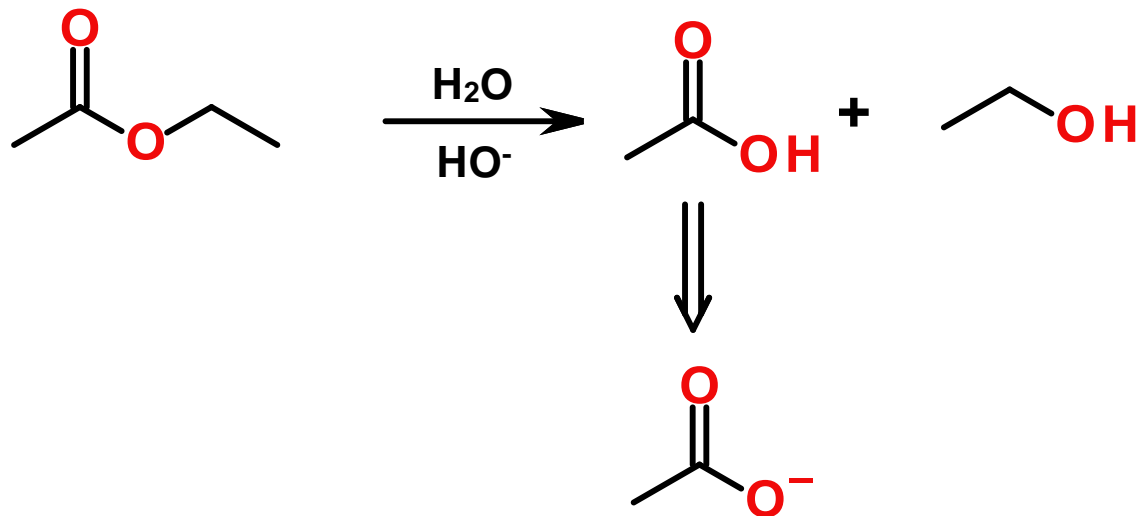
	Homework Assignment	Due Date
13	Ex2-07-B7-12-03A Carbox Acid Rxns	Thursday, October 6, 2016
14	Ex2-07-B7-12-03B Carbox Acid Rxns	Friday, October 7, 2016
15	Ex2-08-B7-12-04A Naming Carbox Acid Derivatives	Saturday, October 8, 2016
16	Ex2-08-B7-12-04B Naming Carbox Acid Derivatives	Sunday, October 9, 2016
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

Mistake #1 in the Last Lecture

Lecture



WE_LEARN

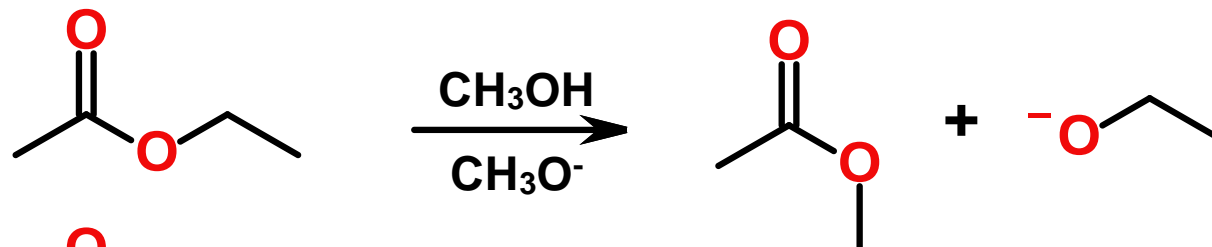


Esters to Carboxylic Acids

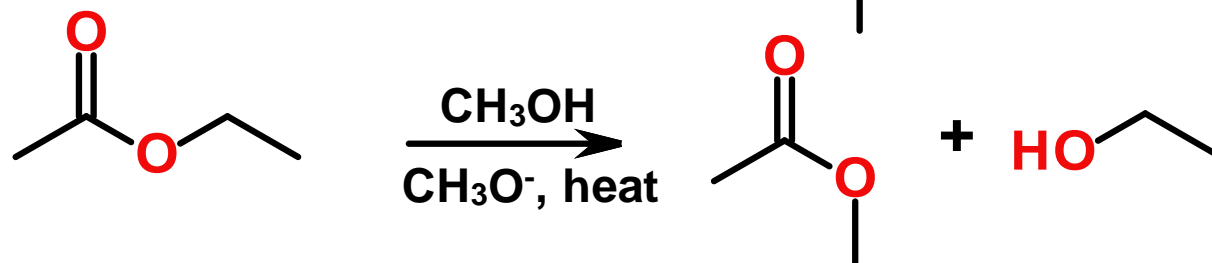
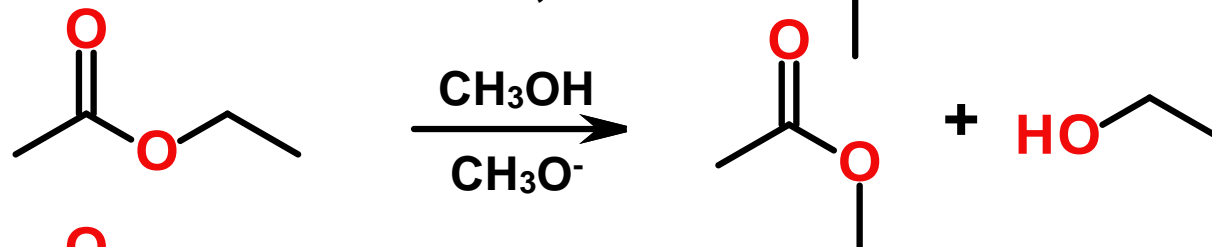
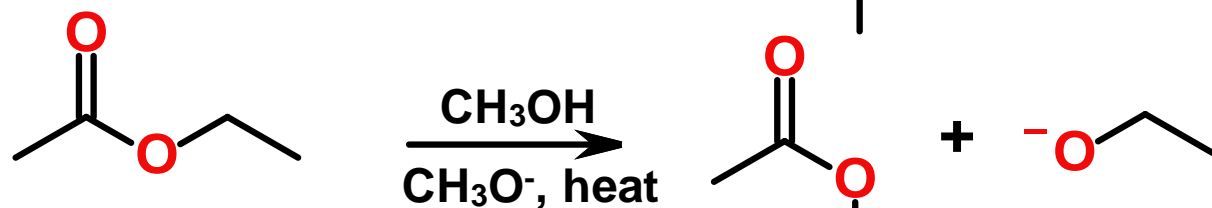
Either answer will be counted as corrected on the exam
(although you may have to appeal to get the credit.)

Mistake #2 in the Last Lecture

Lecture



WE_LEARN

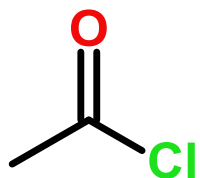


Trans-Esterification

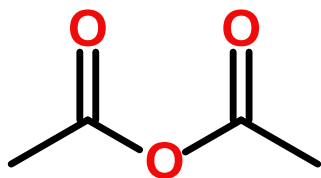
Either answer will be counted as corrected on the exam
(although you may have to appeal to get the credit.)

Carboxylic Acid Derivatives

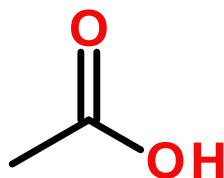
Acid Halide



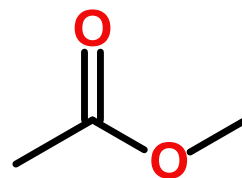
Anhydride



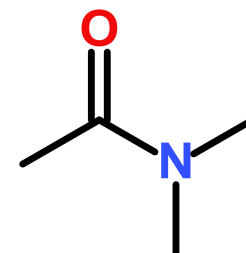
Carboxylic
Acid



Ester



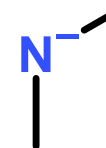
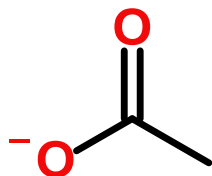
Amide



Most
Reactive



Least
Reactive



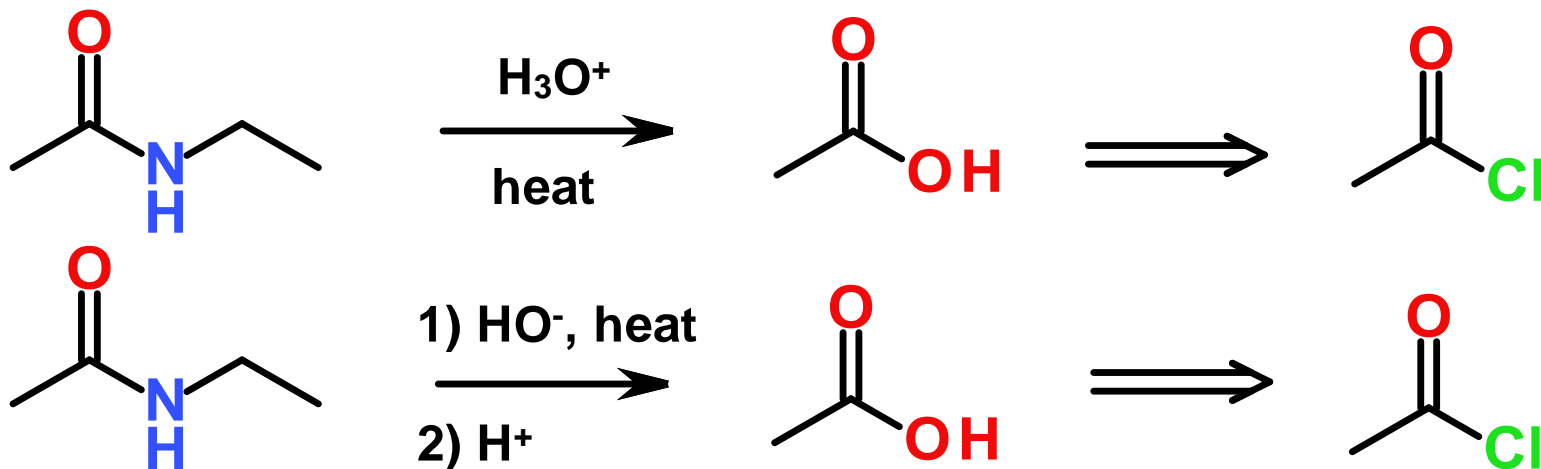
Most Stable

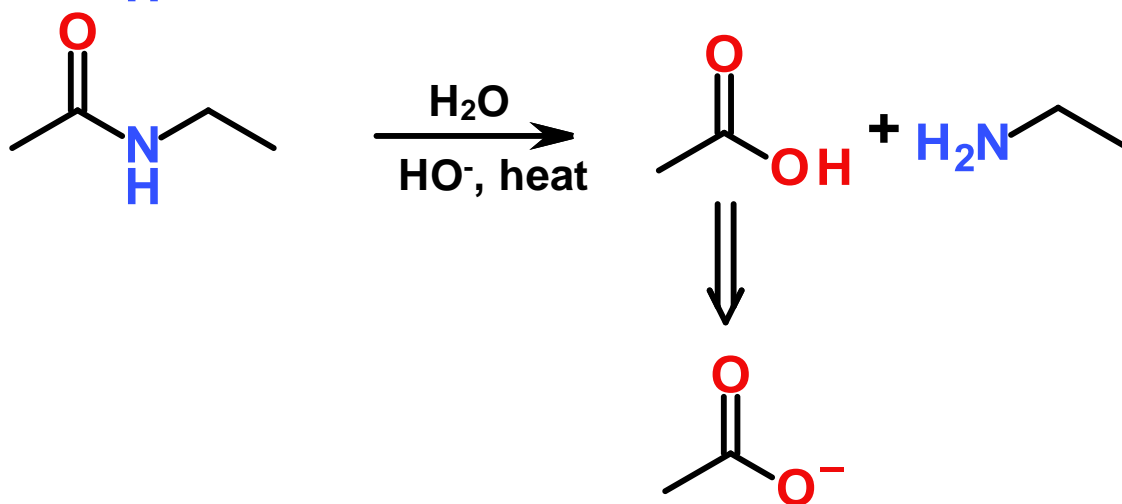
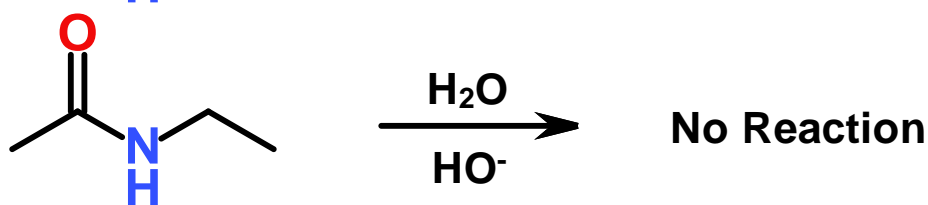
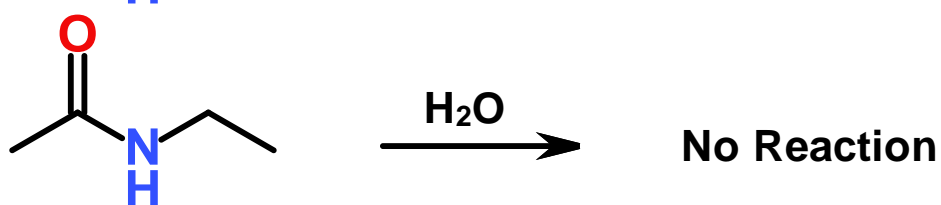
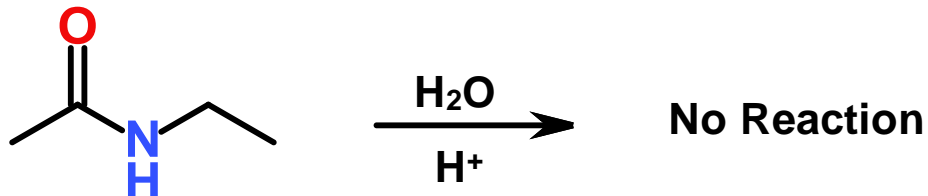
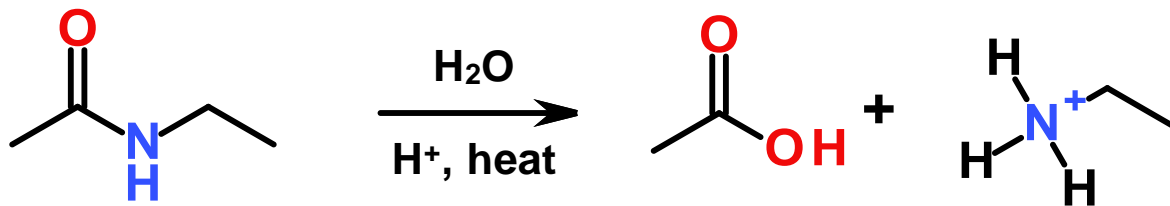


Least Stable

Amides to Acid Chlorides

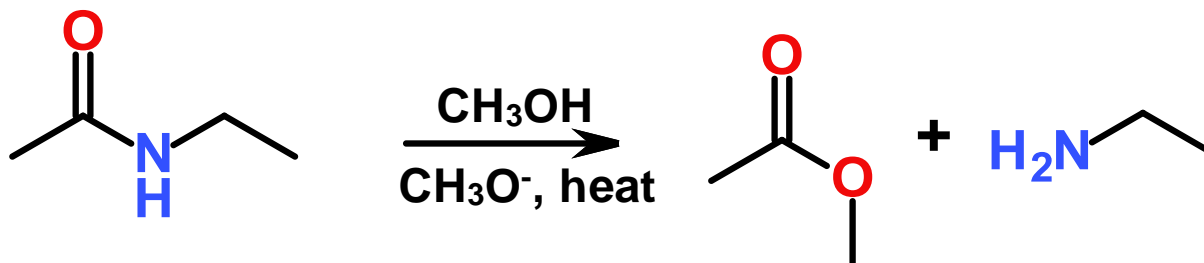
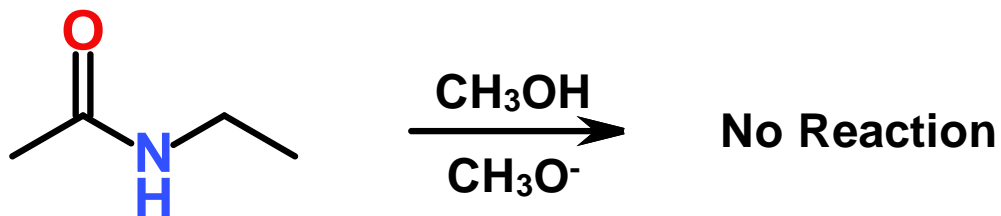
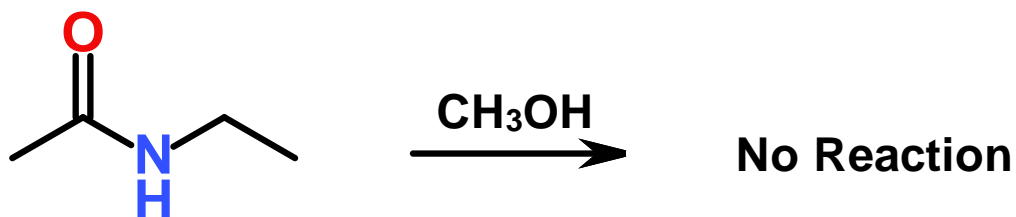
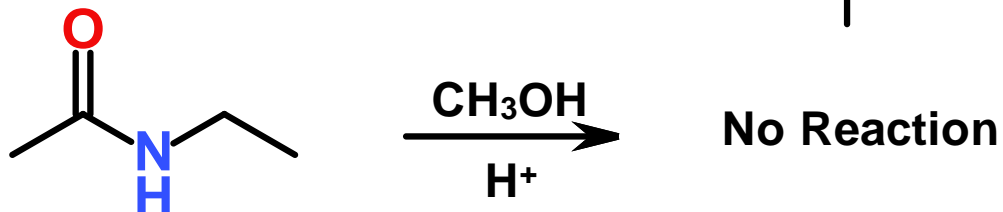
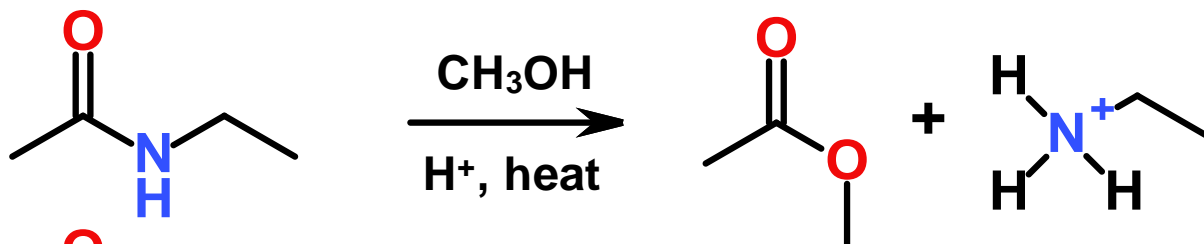
- No direct route!
- Must convert to a carboxylic acid, then to the acid chloride





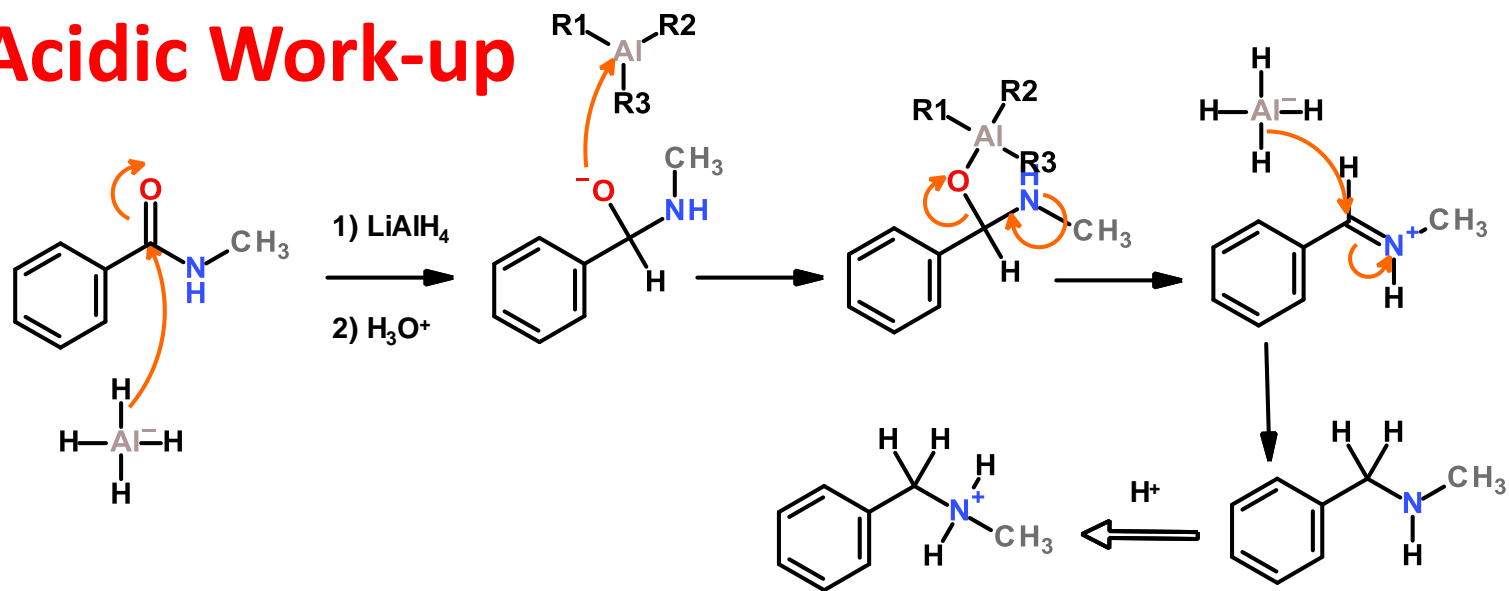
Amides to
Carboxylic
Acids

Amides to Esters

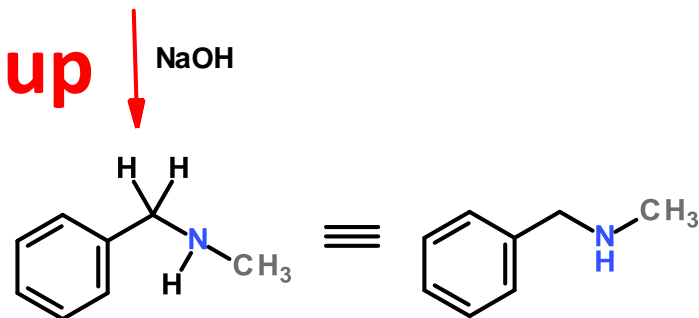


Amide Reduction by LiAlH_4

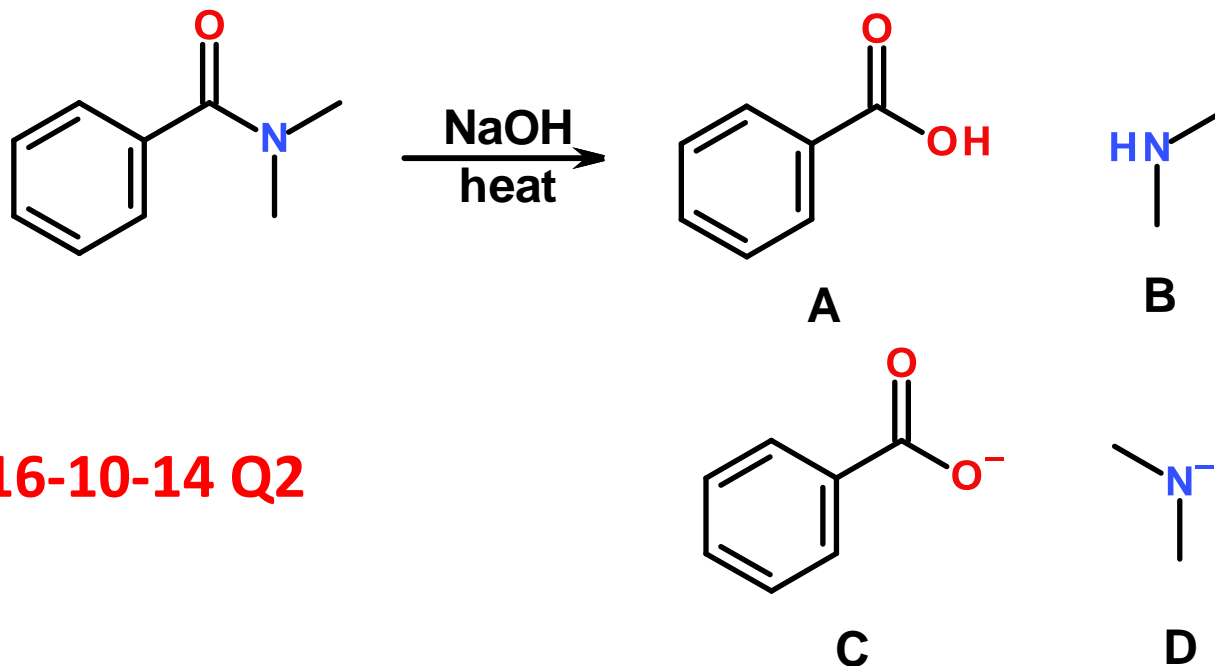
Acidic Work-up



Basic Work-up



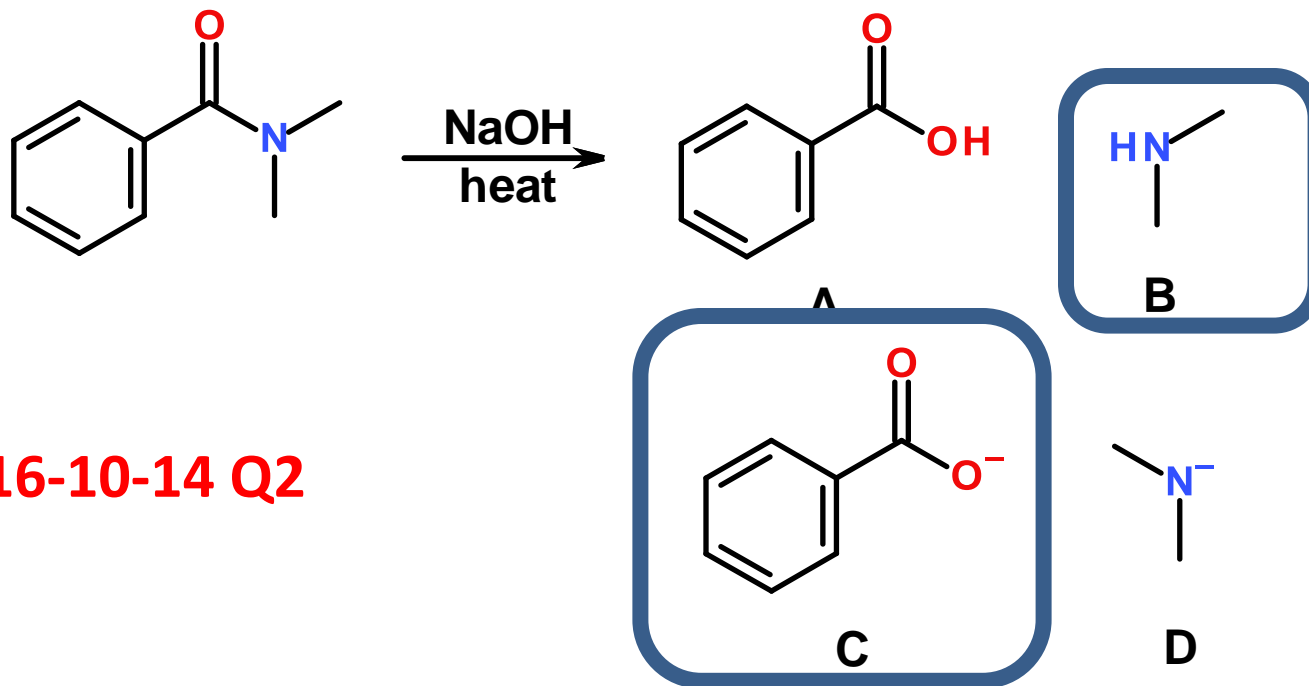
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx a b)



2016-10-14 Q2

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

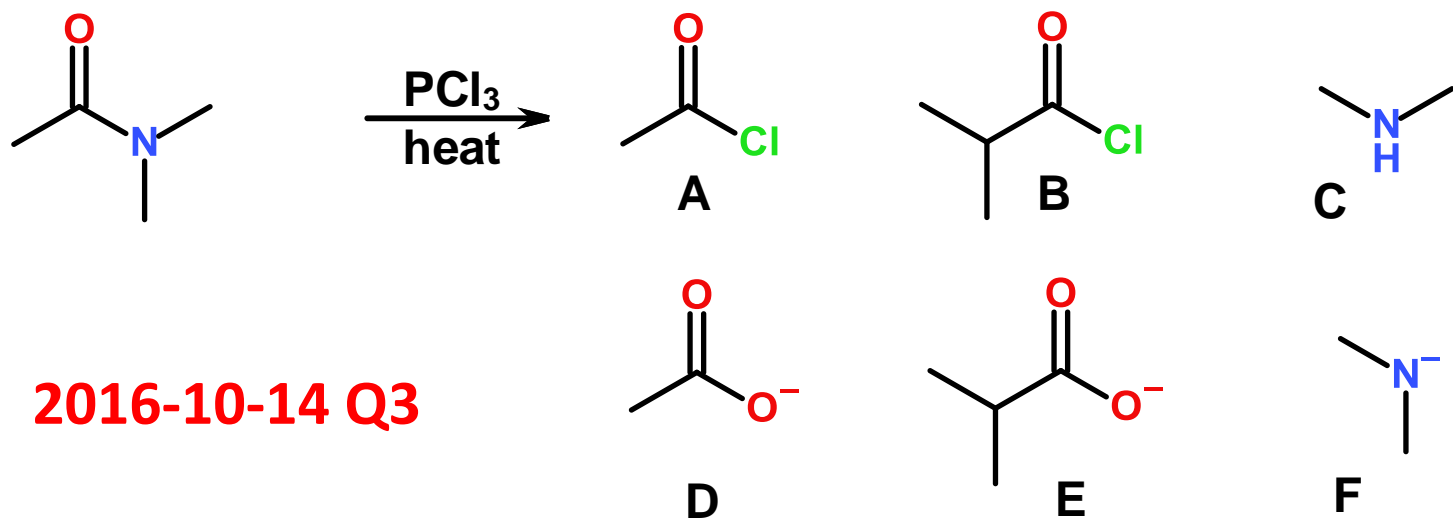
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx a b)



2016-10-14 Q2

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

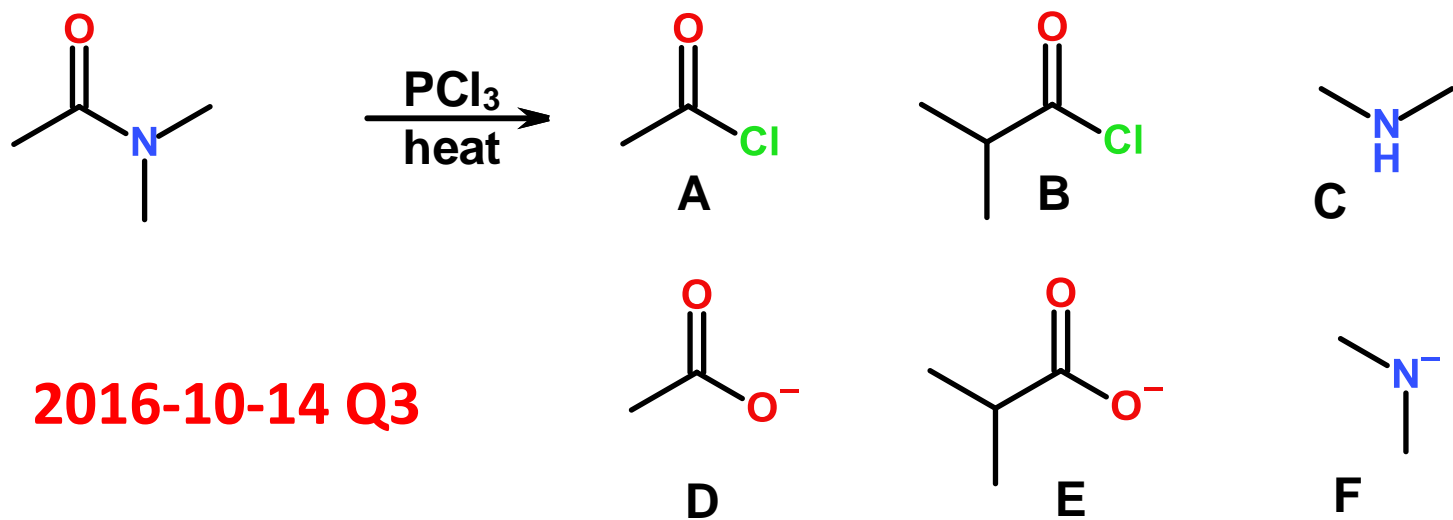
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx a b)



2016-10-14 Q3

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

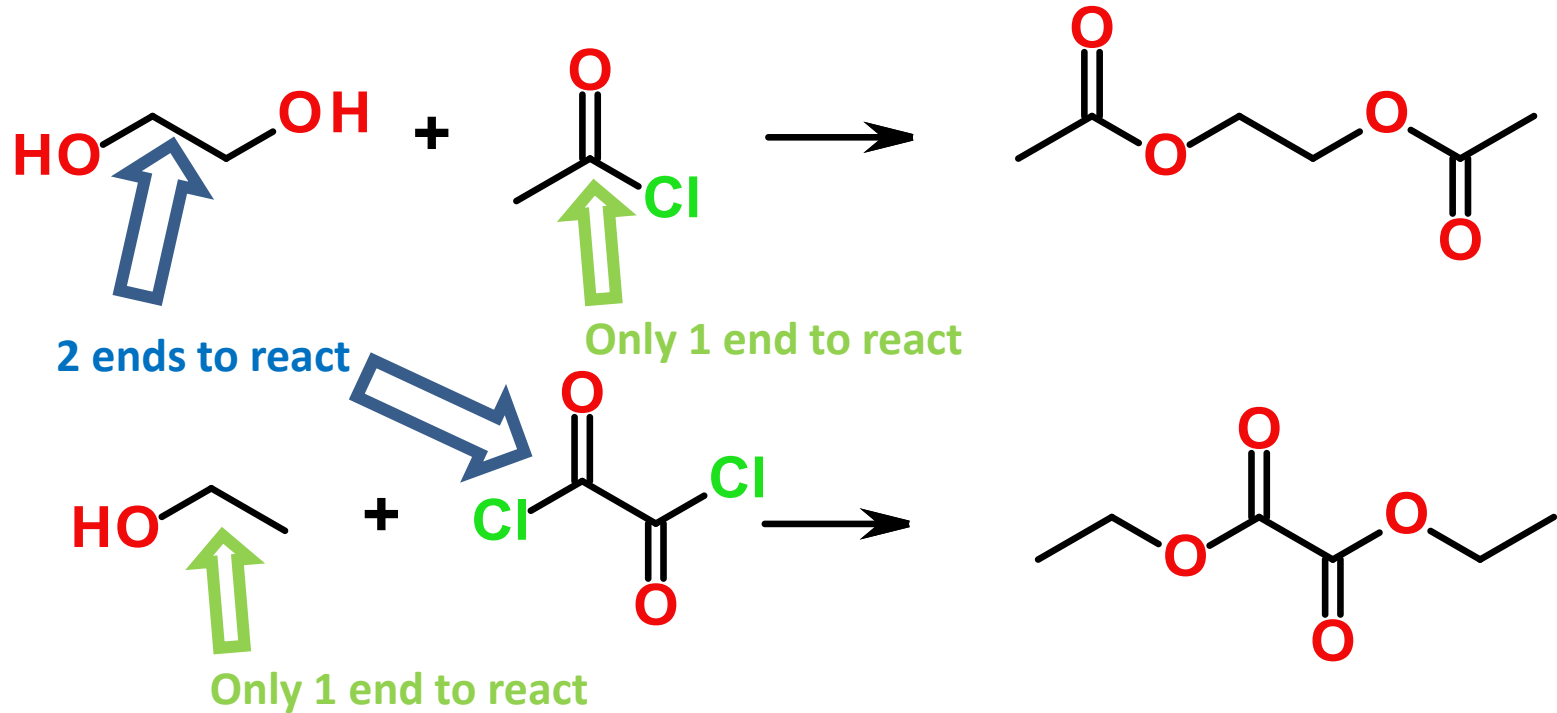
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx a b)



2016-10-14 Q3

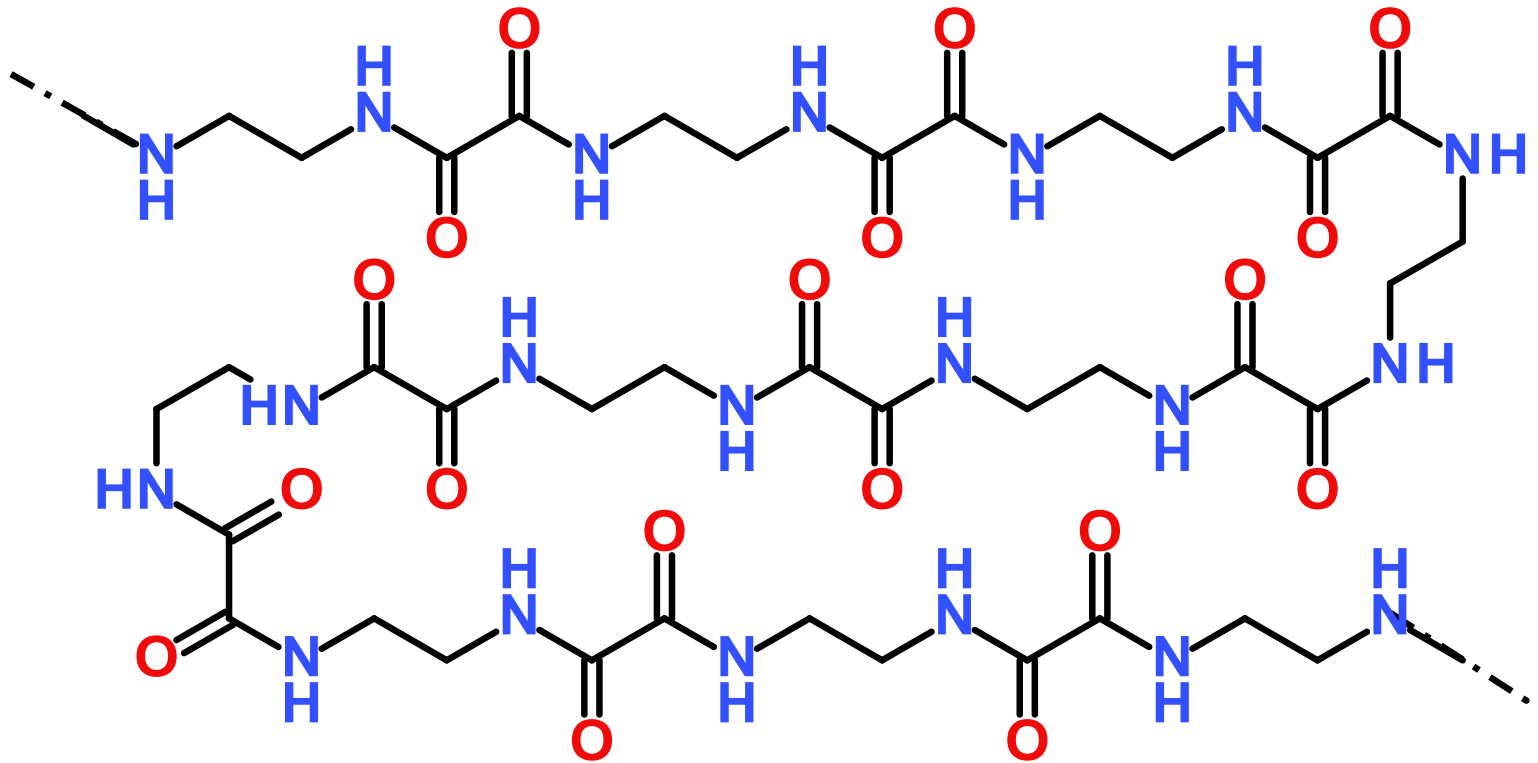
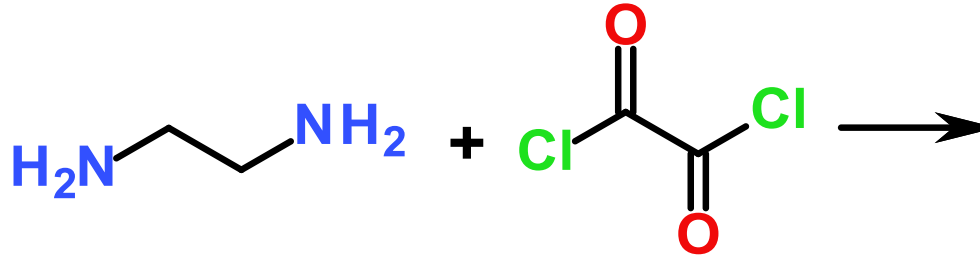
G - None of these products are a major product of the reaction that is shown.

Towards Step-Growth Polymers

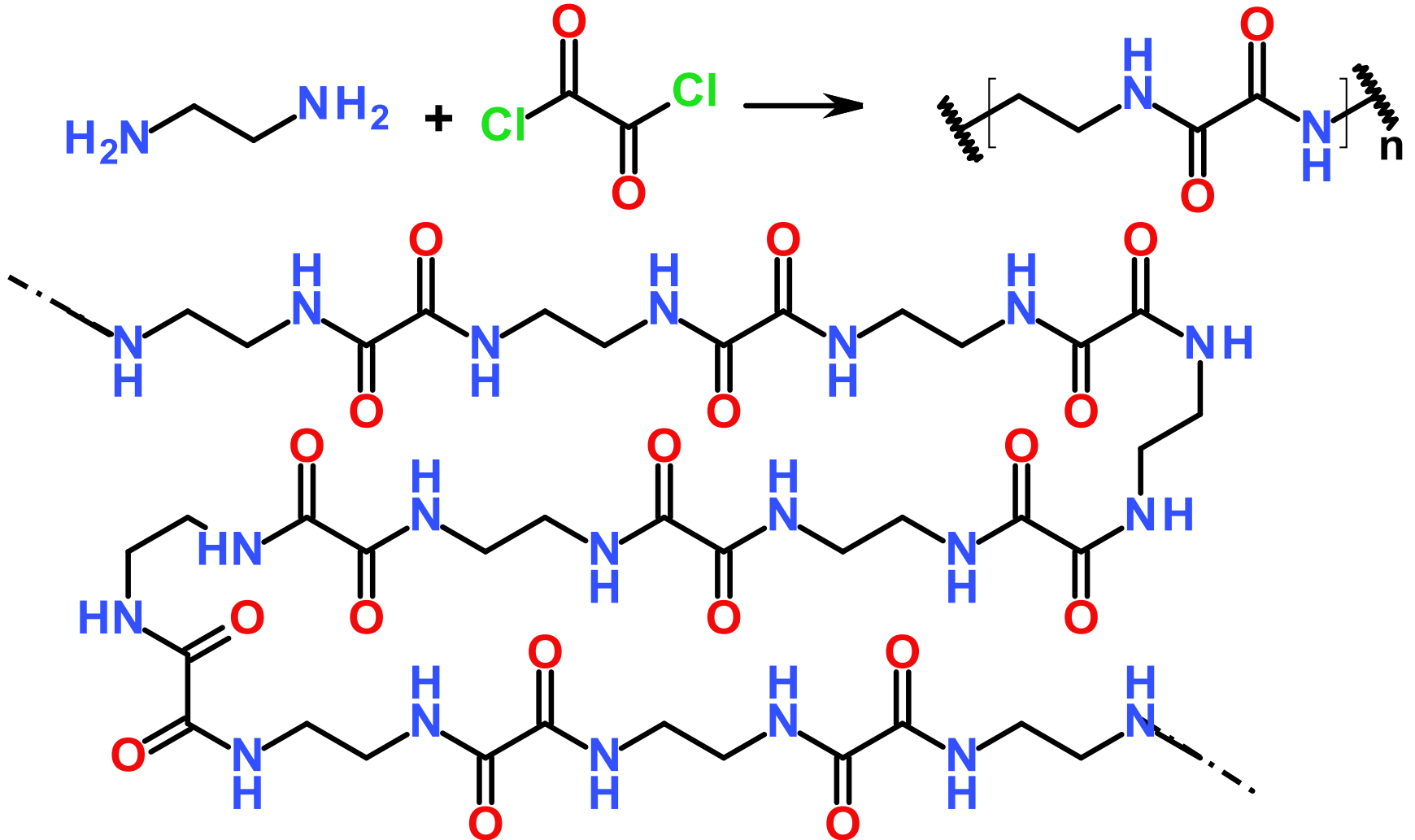


**No ends left
to react with**

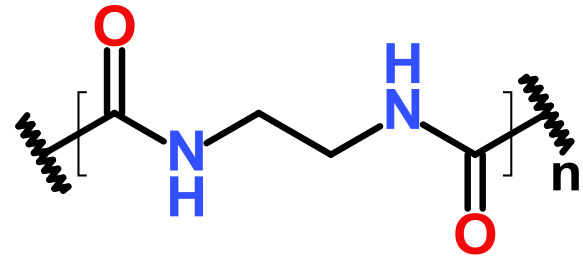
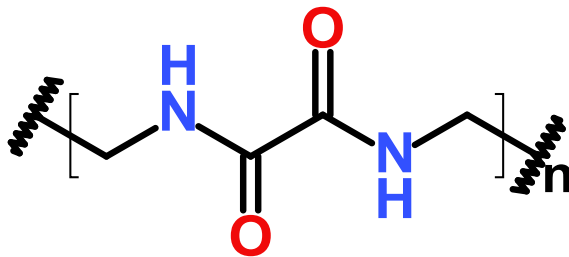
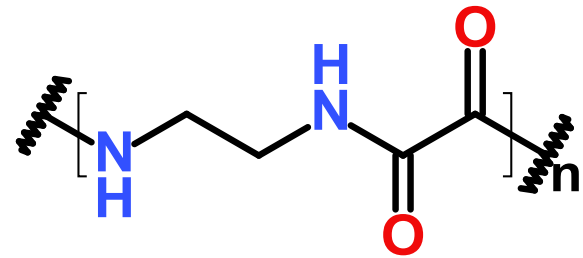
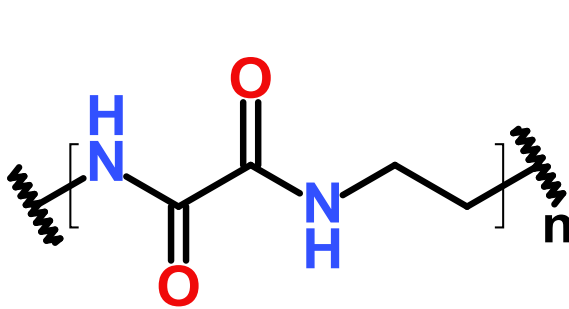
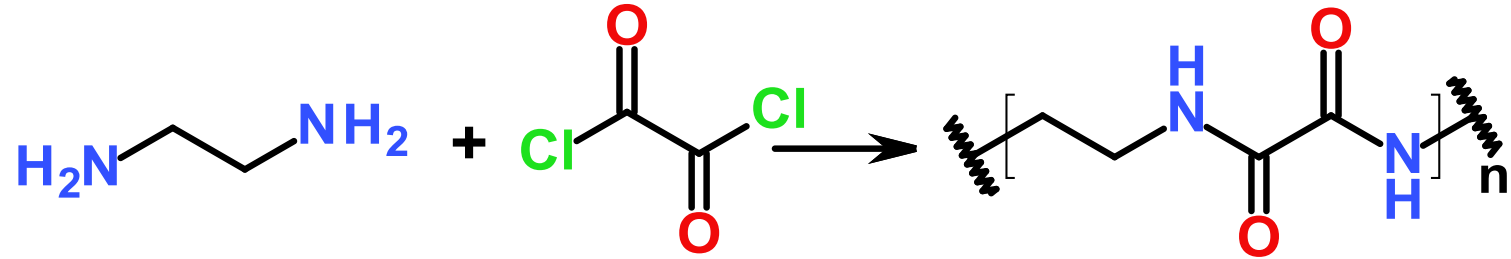
Step-Growth Polymers



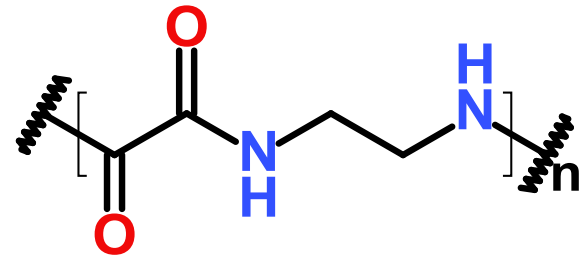
Step-Growth Polymers



Step-Growth Polymers

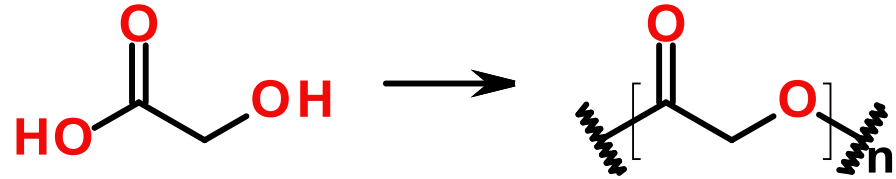


All of these are representations
of the same polymer!

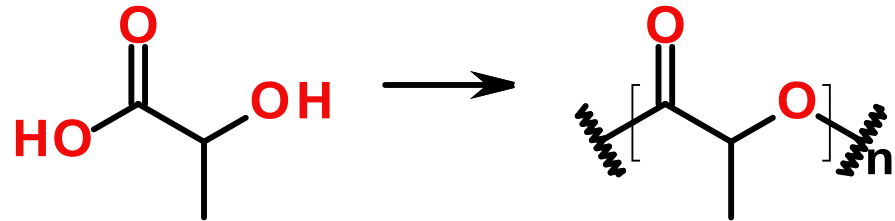


Aliphatic Homopolymer Polyesters

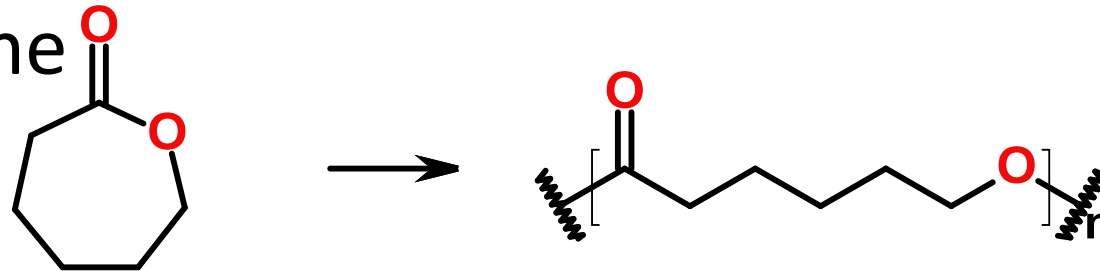
PGA Polyglycolide



PLA Polylactic acid



PCL Polycaprolactone

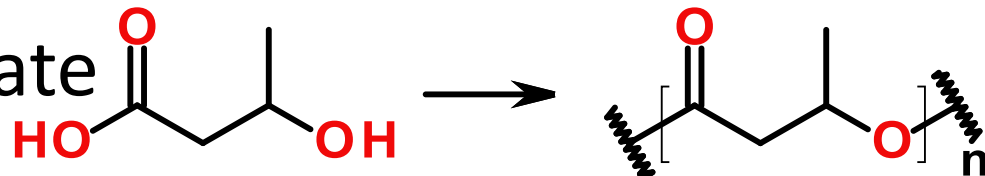


Ester Linkages

Lead to Biodegradability

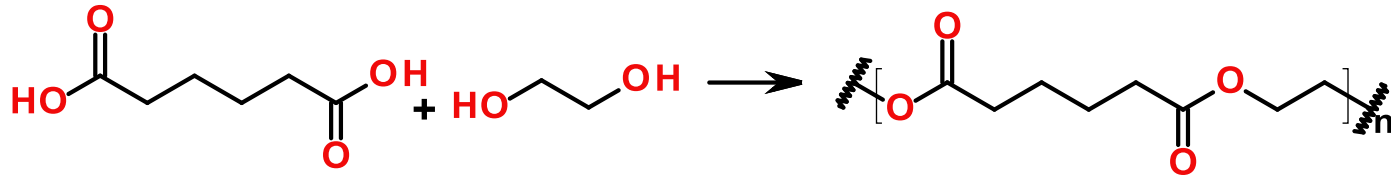
PHA Polyhydroxyalkanoate

PHB Polyhydroxybutyrate

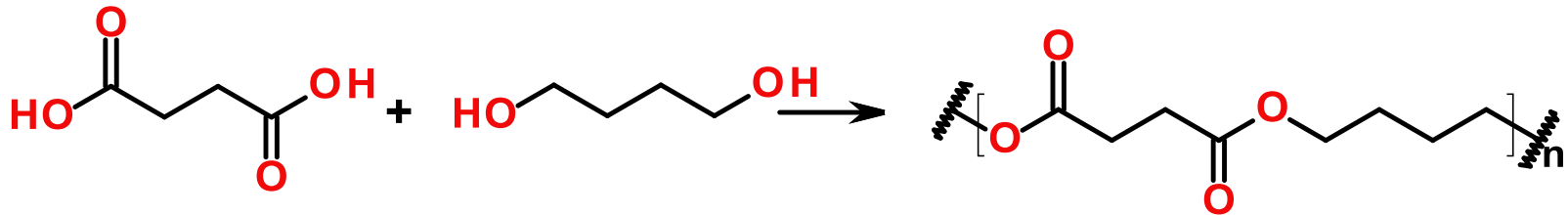


Aliphatic Copolymer Polyesters

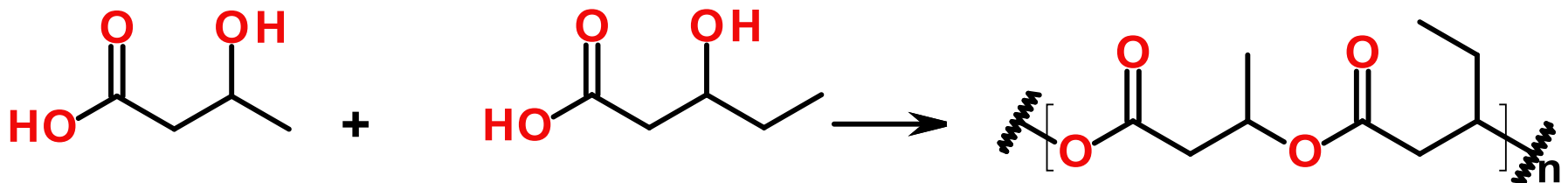
PEA Polyethylene adipate



PBS Polybutylene succinate

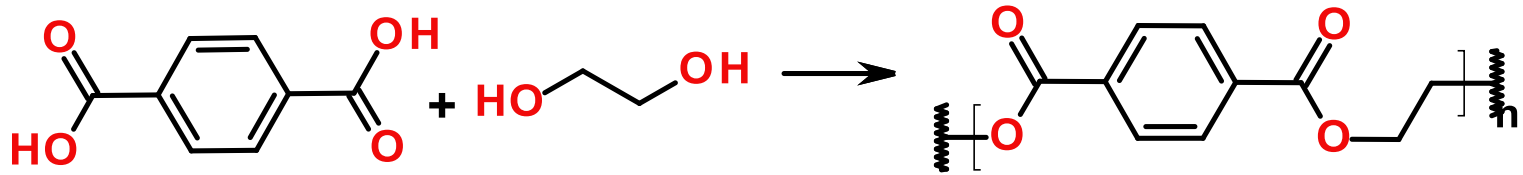


PHBV Poly(3-hydroxybutyrate-co-3-hydroxyvalerate)

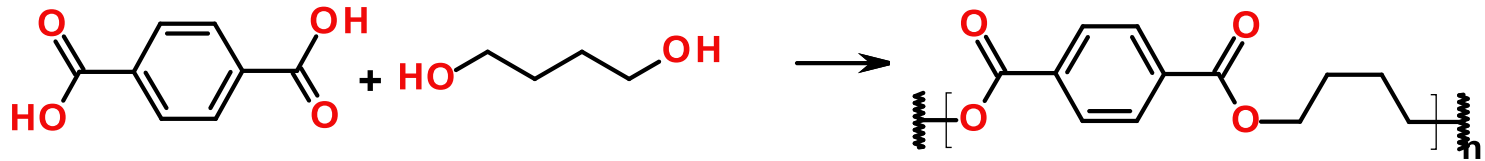


Semiaromatic Copolymer Polyesters

PET Polyethylene terephthalate



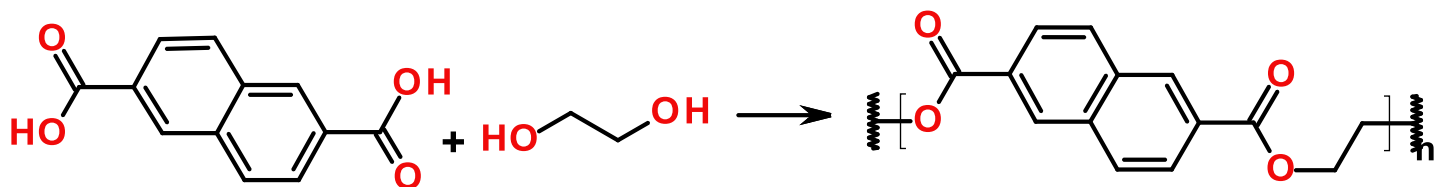
PBT Polybutylene terephthalate



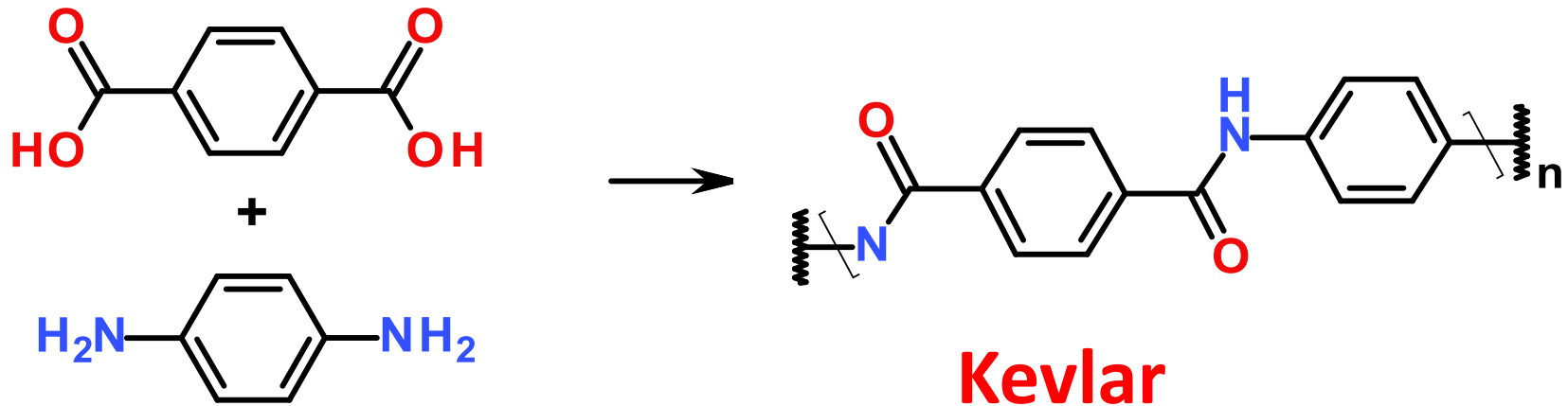
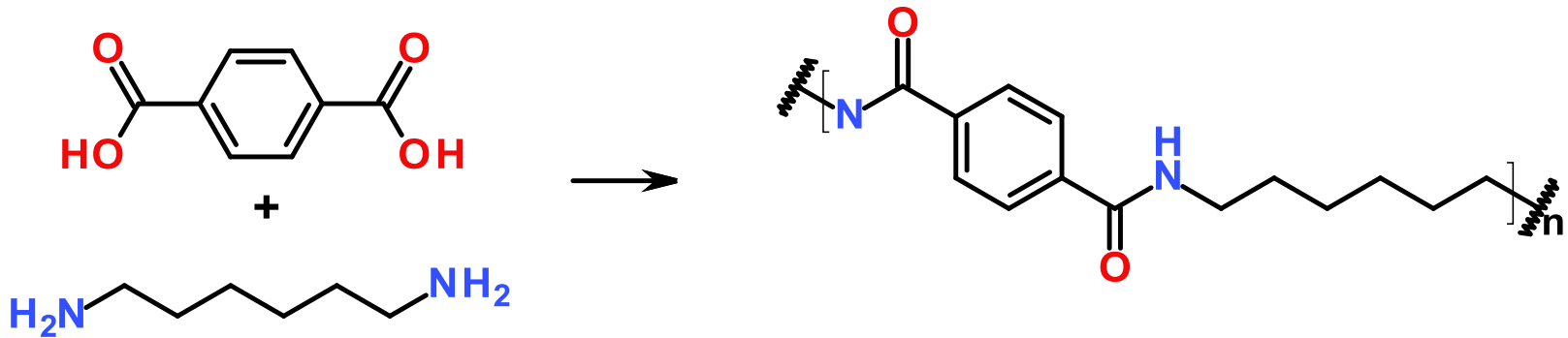
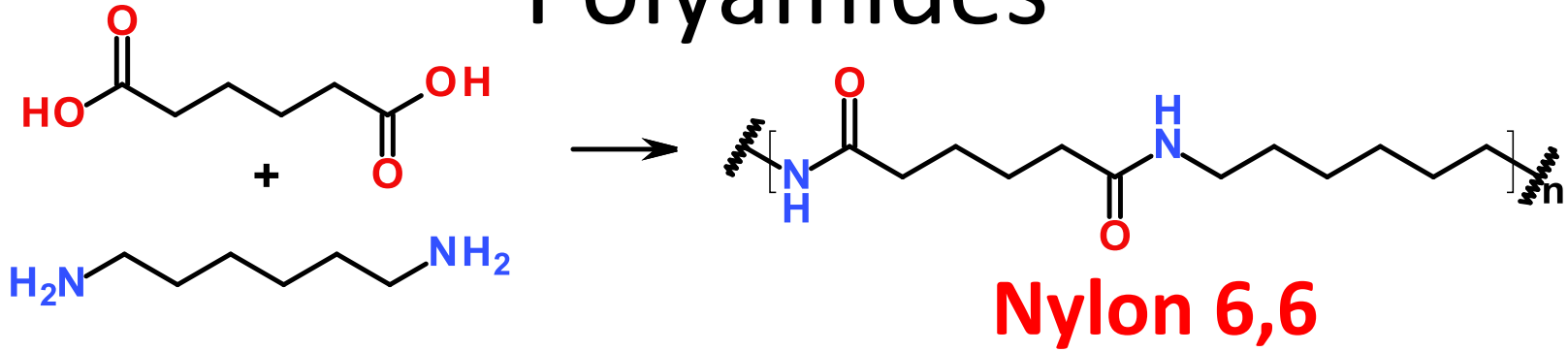
PTT Polytrimethylene terephthalate



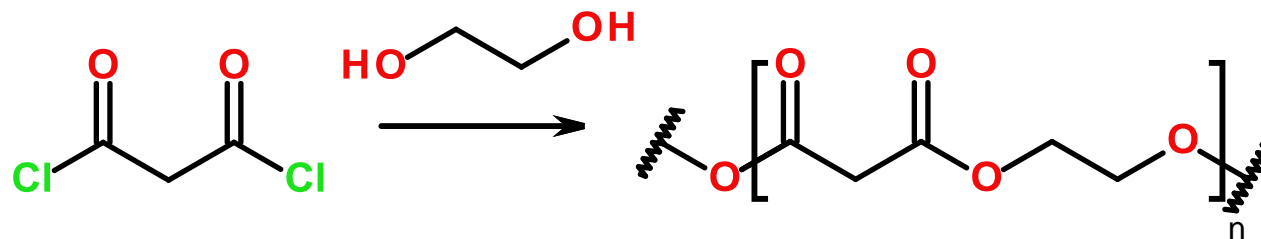
PEN Polyethylene naphthalate



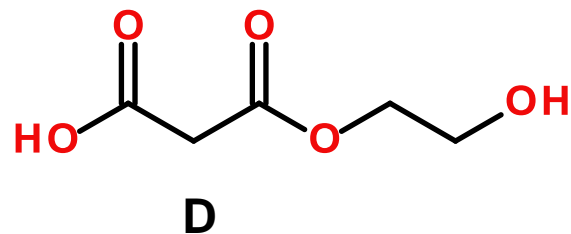
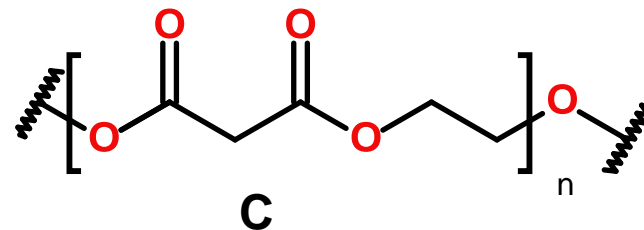
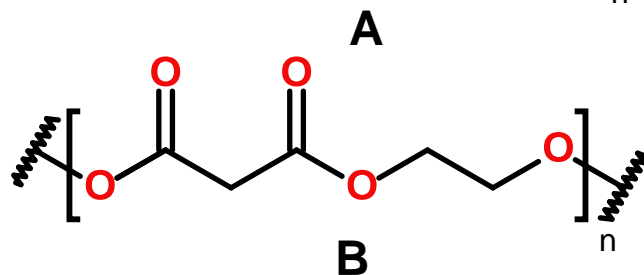
Polyamides



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 a b)

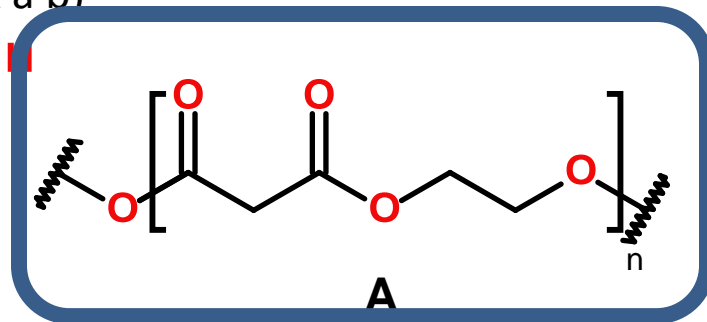
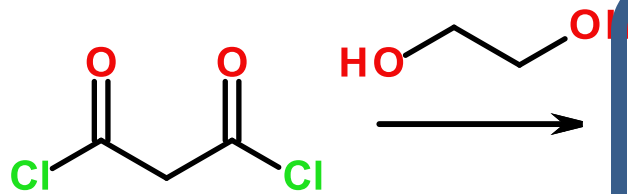


E - None of these products are a major product of the reaction that is shown.

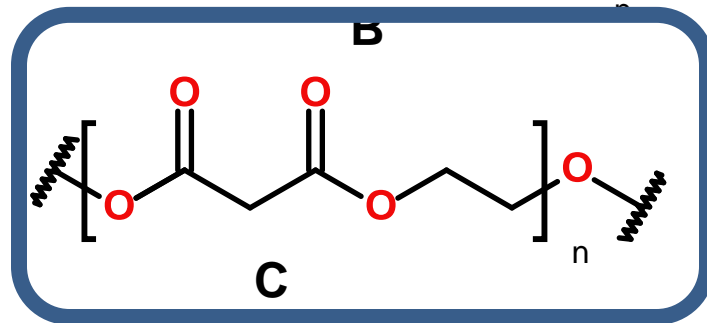
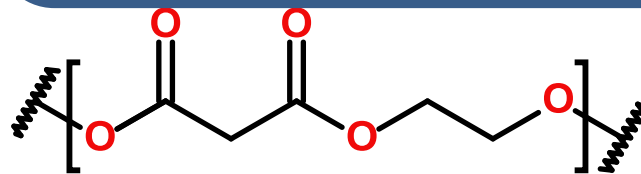


2016-10-14 Q4

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 a b)



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



2016-10-14 Q4

