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CHEMISTRY 11  
Organic Chemistry  
Lesson #5

The 8 Functional Groups Continued.

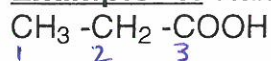
In the previous lesson we discussed how to name an alcohol. In this lesson we will learn will learn how to name organic acids and esters.

Rules for naming an ORGANIC ACID:

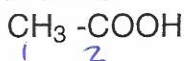
Recall that an organic acid is a hydrocarbon that ends in a -COOH group.

1. use the parent name for the total # of C's present
2. change "e" to "oic" + the word acid

**Example 1:** Name the following organic acids:



propanoic acid



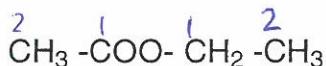
ethanoic acid

Rules for naming an ESTER:

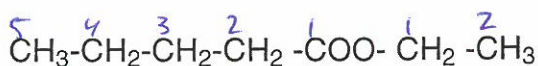
Recall that an ESTER is a hydrocarbon with a -COO in backbone

1. Use the alkyl name for the # of C's attached to the "O" of "COO"
2. the carbons attached to the "C" of the "COO" change the parent name "e" to "oate"

**Example 2:** Name the following esters:



ethyl ethanoate

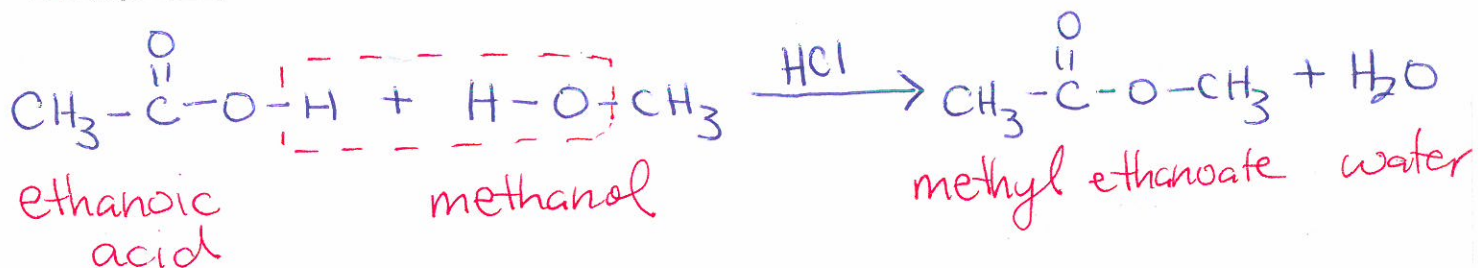


ethyl pentanoate

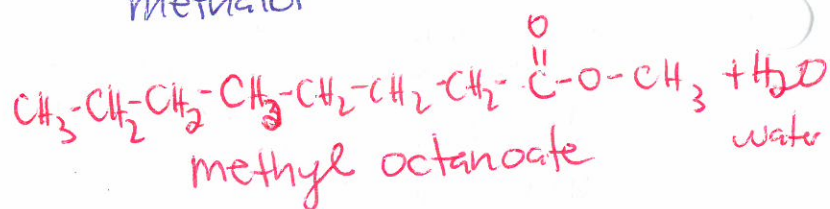
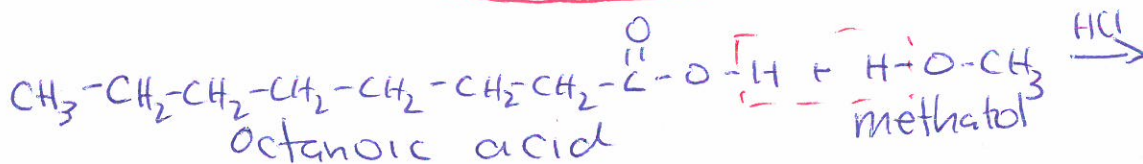
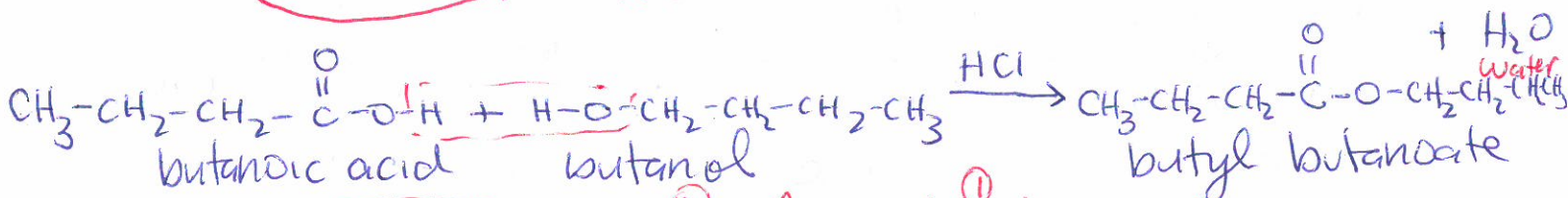
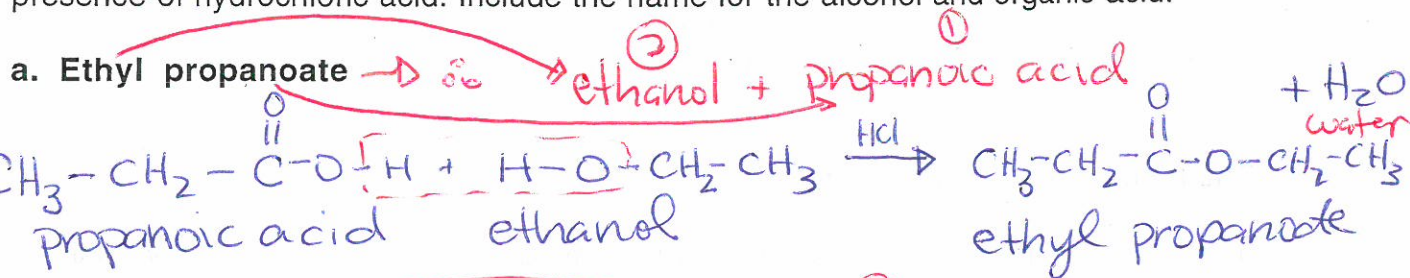
ESTER FORMATION:

Combining an ORGANIC ACID (-COOH) with an alcohol (-OH) in the presence of an INORGANIC ACID such as HCl or H<sub>2</sub>SO<sub>4</sub> forms an ESTER and WATER

**Example 3:**



**Example 4:** Show the skeletal equation for the formation of the following esters in the presence of hydrochloric acid. Include the name for the alcohol and organic acid.



**HOMEWORK:** Exercises 34-36