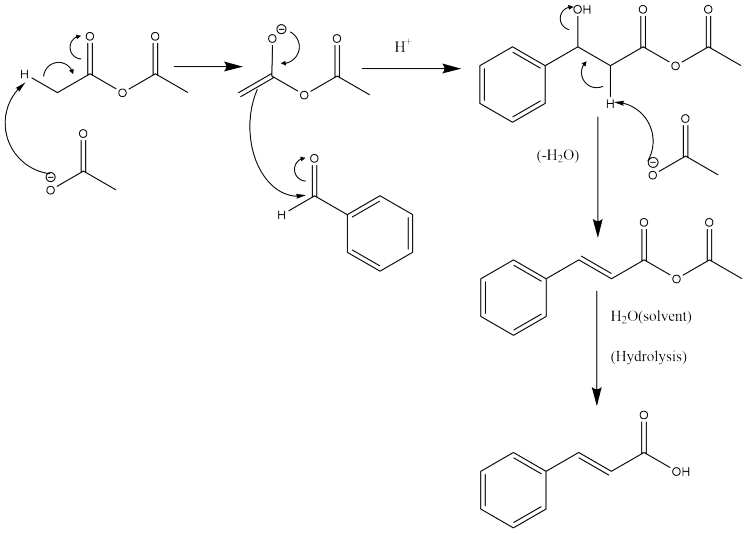
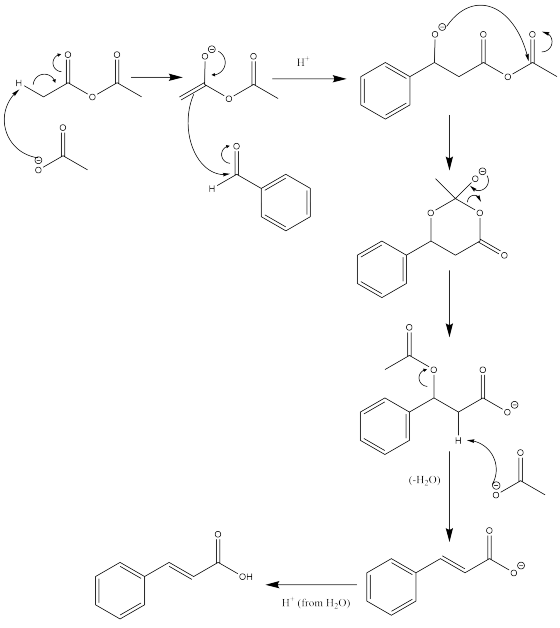
Outline of the solution to Problem 7: Almonds, Cinnamon, and everything in between

10 marks

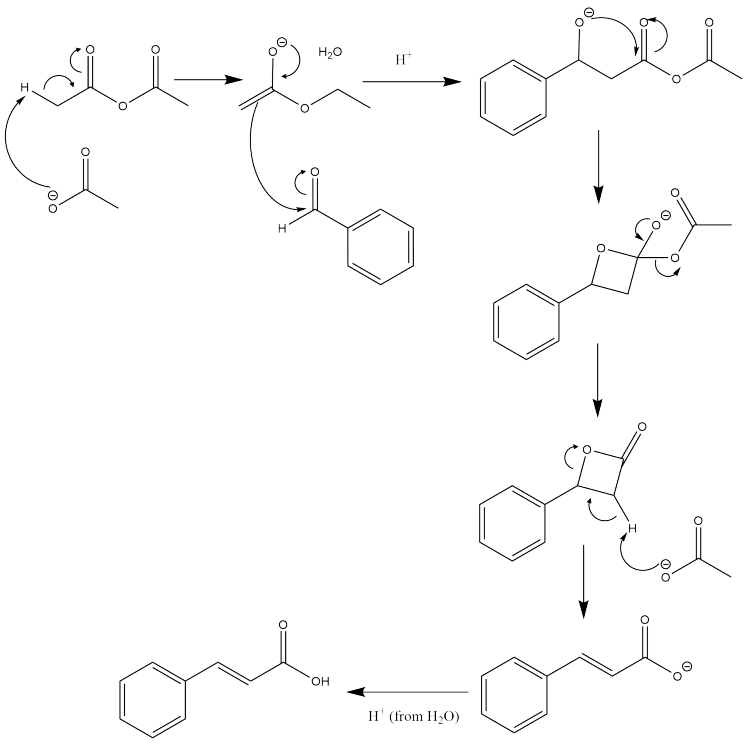
14 September, 2020

1. 

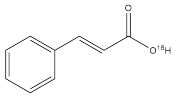
Mechanism A

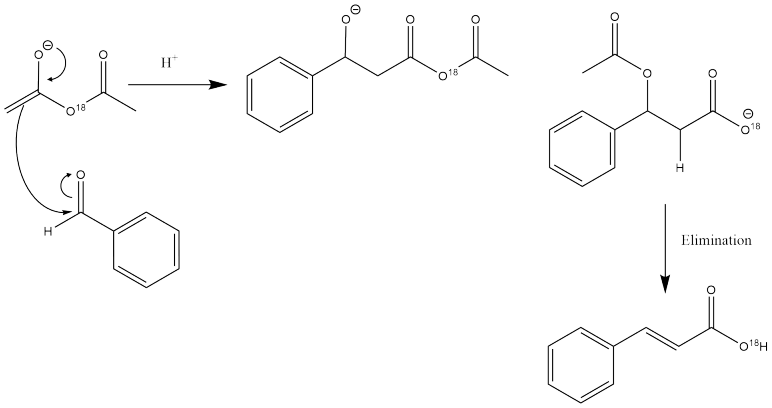


Mechanism B

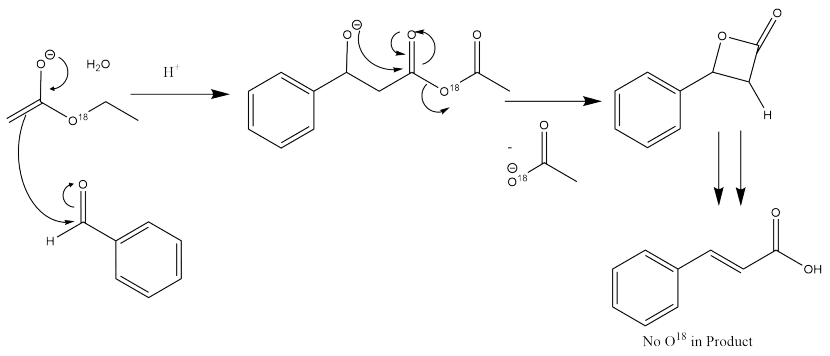


Mechanism C

Now, in the first mechanism, we see the hydrolysis at the end that means if H_2O^{18} is used as the solvent we'll get  as the product; as the H_2O^{18} attacks the anhydride to generate the acid in the proves of hydrolysis. So, Mechanism A can be rejected as no O^{18} was seen in the project



2. Mechanism B



Mechanism C

Thus, Mechanism C can be rejected.

3. Combining these two, Mechanism B is the most suitable one. Step has been shown previously.

4. In this case, the reaction will stop after Acyl transfer since no elimination is possible due to lack of hydrogen.