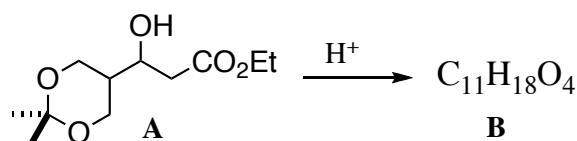


Fall 2007

Homework #8

due: 10 a.m. Monday, November 5th

1. (10 points) Deduce the structure of **B**, and draw an arrow-pushing mechanism for the transformation.

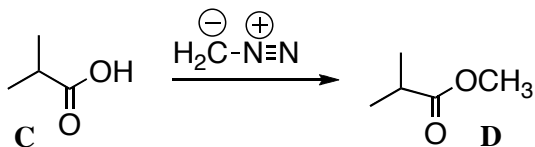
 **^{13}C NMR:**

14.2, q 97.9, s
 23.4, q 121.6, d
 24.4, q 147.0, d
 34.5, d 166.8, s
 60.1, t
 63.5, t (2)

 1H NMR:

1.27, t, $J = 7.1$ Hz, 3H
 1.39, s, 3H
 1.42, s, 3H
 3.6, m, 1H
 3.71, dd, $J = 5.9, 11.6$ Hz, 2H
 4.06, dd, $J = 4.0, 11.6$ Hz, 2H
 4.15, q, $J = 7.1$ Hz, 2H
 5.89, d, $J = 5.9, 11.5$ Hz, 1H
 6.41, dd, $J = 9.5, 11.5$ Hz, 1H

2. (10 points) Draw an arrow-pushing mechanism for the following transformation:



3. Outline a synthetic route from **E** to **F**. Show all reagents. Absolute configuration does not matter, but you must show how to control relative configuration.

