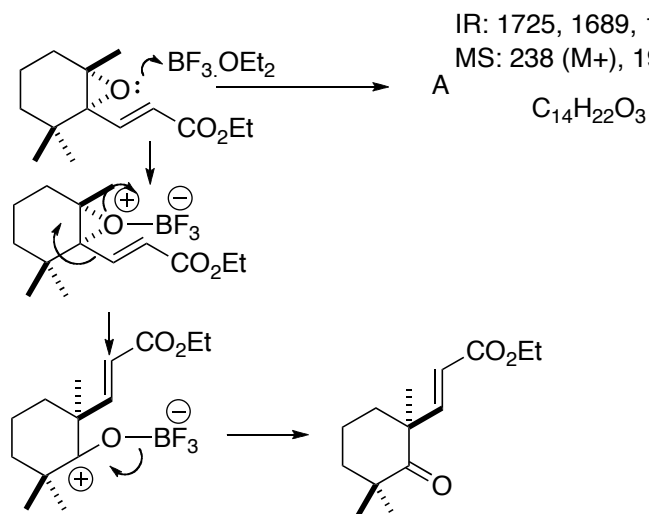


Chem 332
 Spring 2011
 Homework #10
 Due 10 a.m. Monday, May 2nd

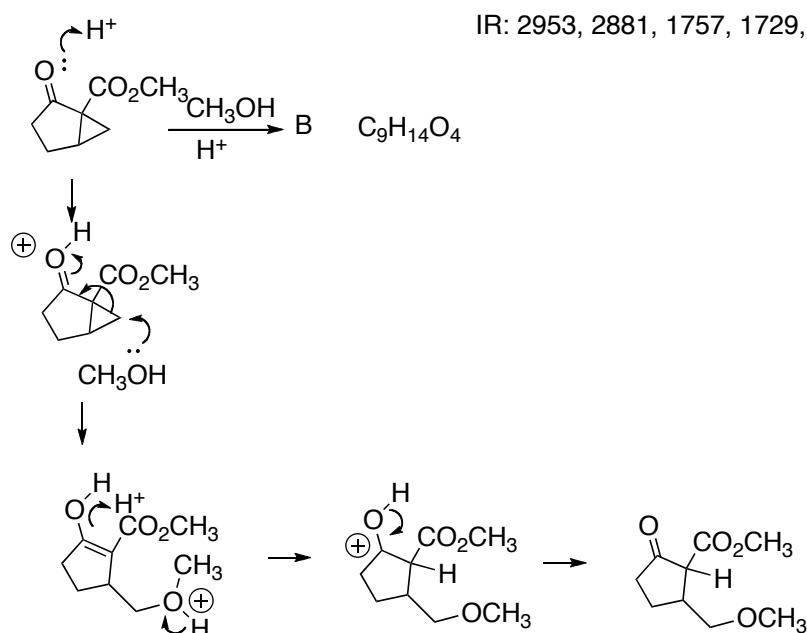
Name _____

1. (15 points) Deduce the structure of A, and draw an arrow-pushing mechanism for its formation.



| $^1\text{H NMR}$: | $^{13}\text{C NMR}$: |
|----------------------------|-----------------------|
| 7.38, d, $J = 15.5$ Hz, 1H | 202.8, s |
| 6.65, d, $J = 15.5$ Hz, 1H | 165.5, s |
| 4.25, q, $J = 6.9$ Hz, 2H | 137.6, d |
| 2.4, m, 1H | 130.4, d |
| 1.6-1.8, m, 3H | 61.1, t |
| 1.4 - 1.6, m, 2H | 59.2, s |
| 1.34, t, $J = 6.9$ Hz, 3H | 44.4, s |
| 1.20, s, 3H | 40.6, t |
| 1.10, s, 3H | 34.4, t |
| 0.86, s, 3H | 25.5, t |
| | 24.7, q |
| | 20.3, q |
| | 19.8, q |
| | 14.3, q |

2. (15 points) Deduce the structure of B, and draw an arrow-pushing mechanism for its formation.



| $^1\text{H NMR}$: | $^{13}\text{C NMR}$: |
|--------------------------|-----------------------|
| 3.69, s, 3H | 211.7, s |
| 3.38, m, 2H | 169.8, s |
| 3.27, s, 3H | 74.5, t |
| 3.05, d, $J=10.0$ Hz, 1H | 59.4, d |
| 2.81, m, 1H | 58.5, q |
| 2.35, m, 1H | 52.8, q |
| 2.27, m, 1H | 41.5, d |
| 2.09, m, 1H | 38.0, t |
| 1.65, m, 1H | 24.2, t |