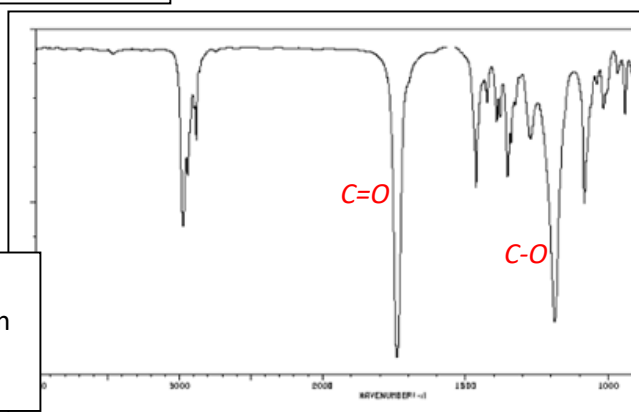
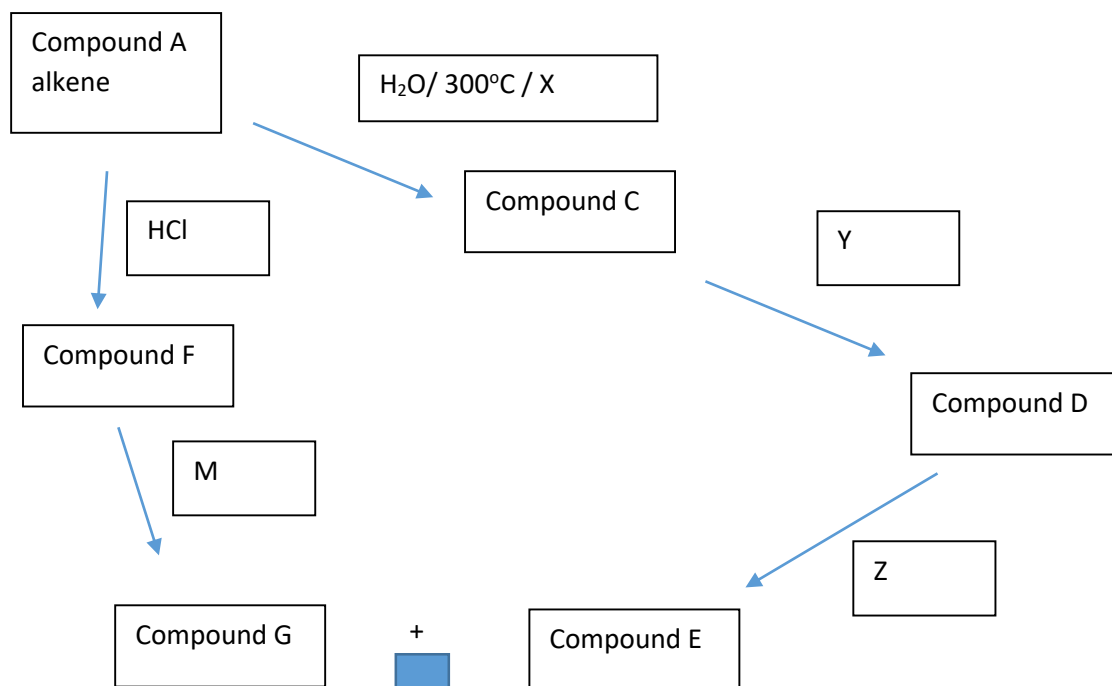
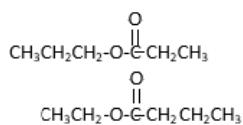


Friday worksheet - 5 – <sup>1</sup>HNMR, IR, organic pathways

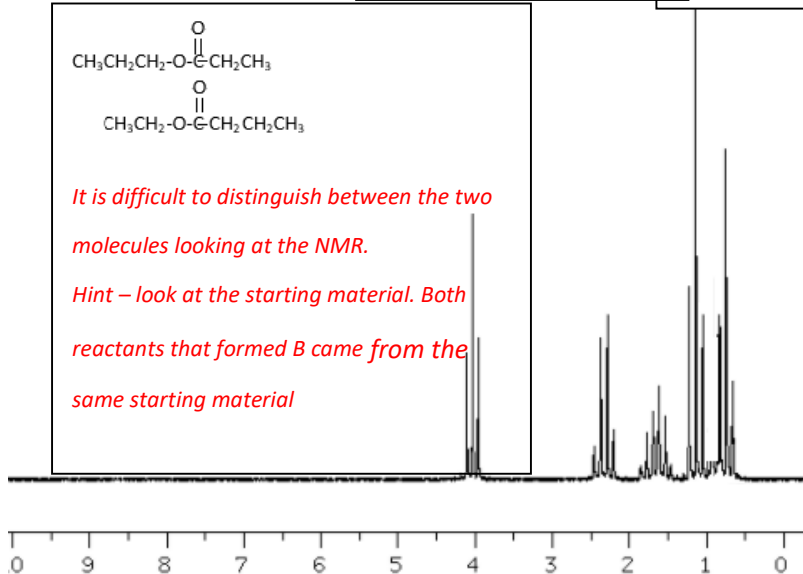


**B** (C<sub>6</sub>H<sub>12</sub>O<sub>2</sub>)  
The IR and <sup>1</sup>HNMR of compound B are shown here



*It is difficult to distinguish between the two molecules looking at the NMR.*

*Hint – look at the starting material. Both reactants that formed B came from the same starting material*



Identify:

- A Propene  
 B Propyl propanoate  
 E Propanoic acid  
 C Propan-1-ol  
 F 1-chloropropane  
 G Propan-1-ol  
 X H<sub>3</sub>PO<sub>4</sub>  
 Y Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup> / H<sup>+</sup> or MnO<sub>4</sub><sup>-</sup> / H<sup>+</sup>  
 Z Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup> / H<sup>+</sup> or MnO<sub>4</sub><sup>-</sup> / H<sup>+</sup>  
 M NaOH

To what group of organic molecules does D belong to?

Aldehydes