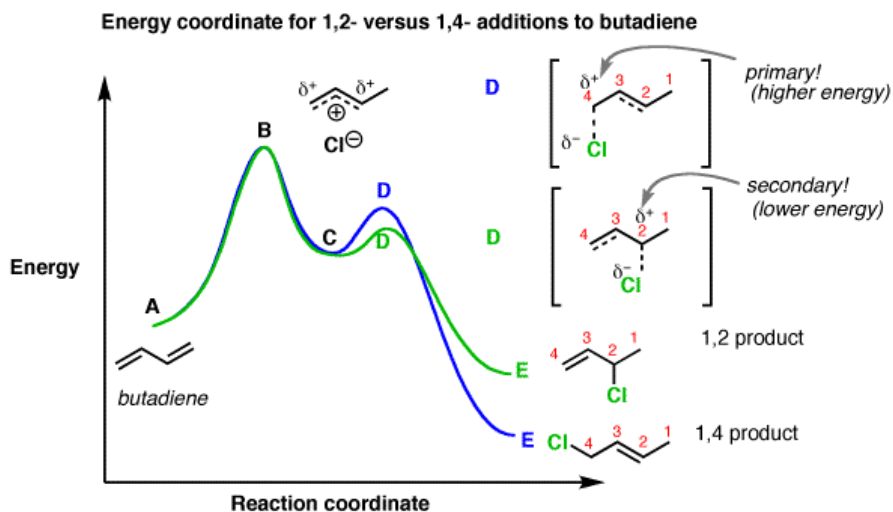


The reaction diagram looks like this.



The height of transition states **D** and **D'** (and therefore their reaction rate from carbocation **C**) is related to the stability of the positive charge in **D** and **D'**. The lower the energy, the faster reaction. So **E** is formed faster from **C** here since the energy of transition state **D** is less than **D'**.

The energy of **E** and **E'** is related to the greater stability of the 1,4 alkene in this case (disubstituted versus monosubstituted). **E'** has a more substituted double bond than **E**, so it is more stable.

