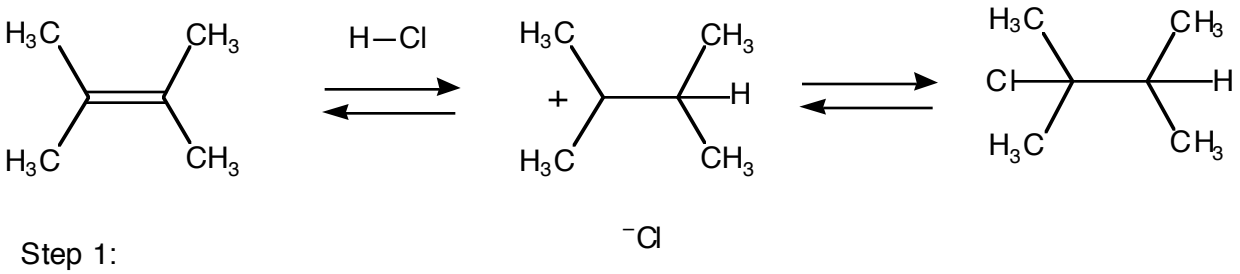
Answers to Problem 27, Chemistry 301X - 2006



Step 1:

break π and H—Cl = 66 + 103 = 169 kcal/mol

make C—H = ~ 96

So, this reaction is endothermic by at least 169 – 96 = 73 kcal/mol (and then there are those charges……)

Step 2:

make C—Cl only, so this reaction is exothermic by about 85 kcal/mol (and those charges go away).

What is the thermochemistry of the overall process?