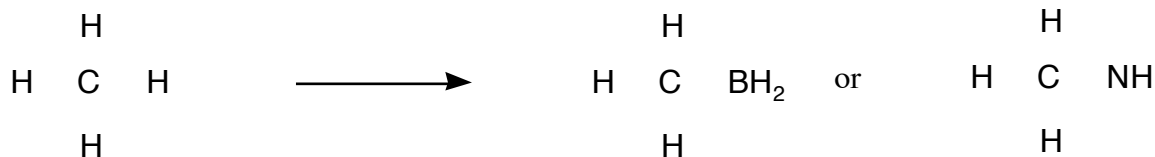


Problem 8, Chemistry 301X - 2006

Now one can think about how to stabilize planar methane. In principle, there is a way to replace one (or more) of the hydrogens with another element that should help lower the energy. Hint: Think about that $2p$ orbital in planar methane. How many electrons in it?

Which of the following two choices would you make? Explain carefully. Another Hint - Think Lewis structures.



planar methane
seen from the top

also top views