

Answer on Question #43830 - Chemistry - Organic Chemistry

Question:

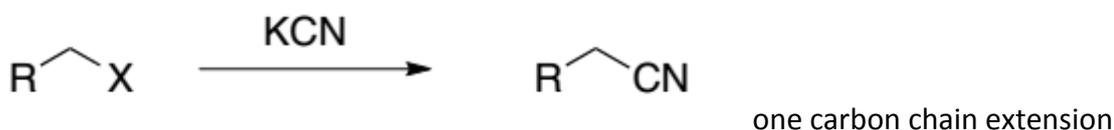
What has to happen for atoms to form the C - C bond?

Answer:

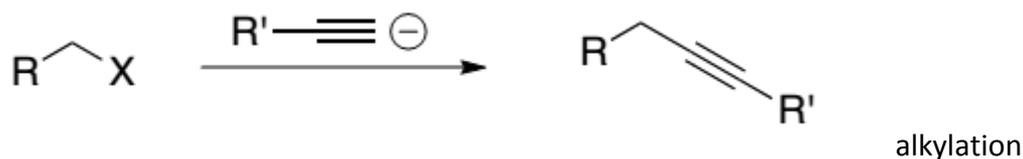
A C - C bond is a covalent bond between two carbon atoms. The most common form is the single bond: a bond composed of two electrons, one from each of the two atoms. The carbon-carbon single bond is a sigma bond and is said to be formed between one hybridized orbital from each of the carbon atoms. In ethane, the orbitals are sp³ hybridized orbitals, but single bonds formed between carbon atoms with other hybridisations do occur (e.g. sp² to sp²).

Carbon-Carbon Bond Forming Reactions

1. S_N2 Displacement with Cyanide



2. Alkylation of Acetylide:



3. Condensation

