Question #79177, Chemistry / Organic Chemistry

Alkyl halides are converted into alkenes by _____, by treating with a strong base.

Solution:

Alkyl halides are converted into alkenes by dehydrohalogenation: elimination of the elements of hydrogen halide. Dehydrohalogenation involves removal of the halogen atom together with a hydrogen atom from a carbon adjacent to the one bearing the halogen. It uses the E2 elimination mechanism. The haloalkane must have a hydrogen and halide 180° from each other on neighboring carbons. If there is no hydrogen 180° from the halogen on a neighboring carbon, the reaction will not take place. It is not surprising that the reagent required for the elimination of what amounts to a molecule of acid is a strong base for example: alcholic KOH.

Answer: dehydrohalogenation

Source: https://en.wikibooks.org/wiki/Organic_Chemistry/Alkenes