

Answer to Question #39271, Chemistry, Organic Chemistry

Question

why TMAOH is a similar strong base to NaOH?

Answer

The main cause is sterical. NH_4^+ can be easily attacked by OH^- (H atoms are very small) and one proton can be removed leaving NH_3 . And $\text{N}(\text{CH}_3)_4^+$ contains relatively large methyl groups that block physical access of OH^- ion to nitrogen or carbon atom. Hence, the O-C bond can not be formed since O atom cannot reach C atom.