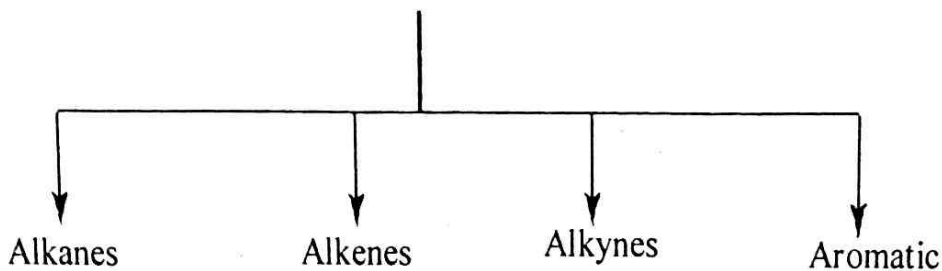


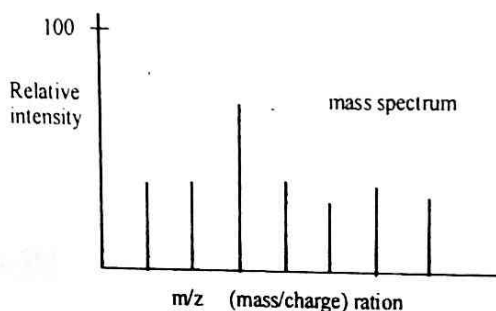
FRAGMENTATION OF HYDROCARBONS



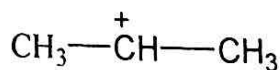
Fragmentation of saturated aliphatic hydrocarbons (alkanes)



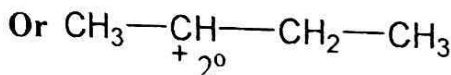
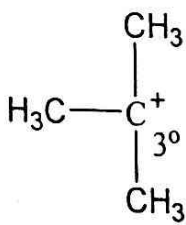
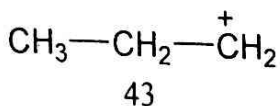
- The characteristic property of mass spectrum of alkanes is group of peaks at 14 mass apart (difference of CH_2 (14) eg. Most intense peak at 43 – 57.
- Most intense peak is known as Base peak.
- The peak which show molecular mass known as molecular ion peak. (radical cation) may be less/more intense.



- The most intense peak appears at m/z 43 and 57.

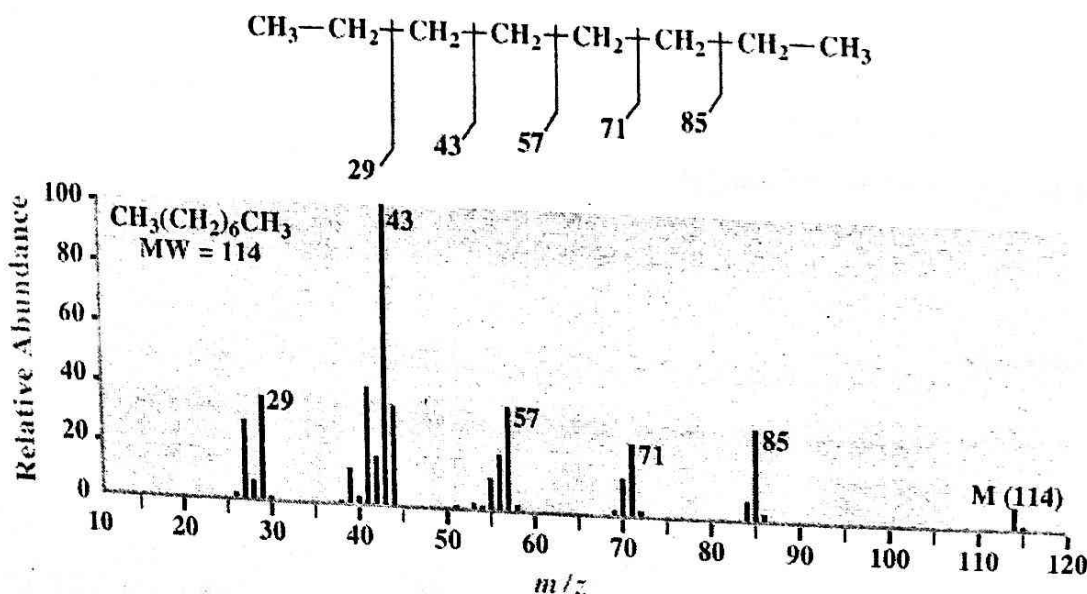


Or



- The intensity of these peaks depend on the stability of carbocation formed. $\text{allyl} > 3^\circ > 2^\circ > 1^\circ > \text{CH}_3^+$.

Mass spectrum of octane:



Mass spectrum of methylcyclopentane:

