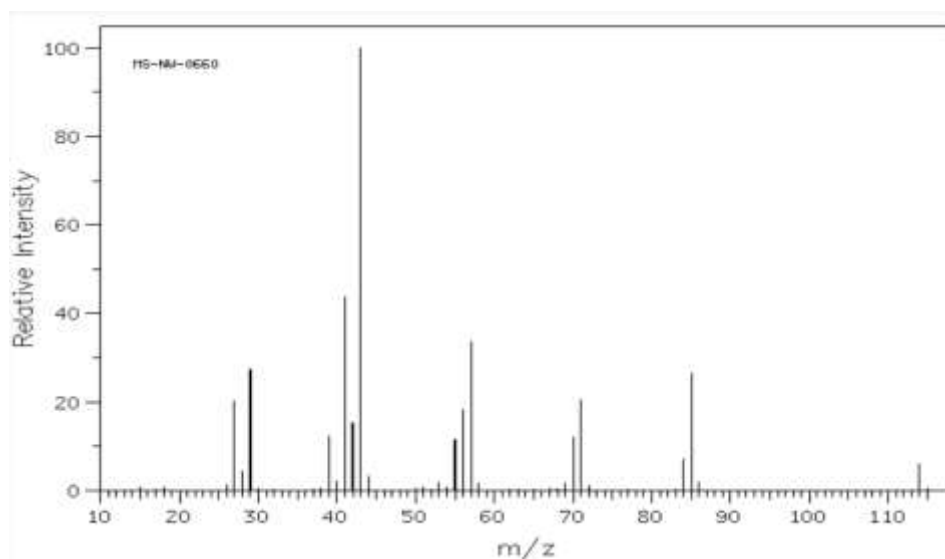


Mass Spectrometry

1/ How are ions separated?

2/ The following figure shows the mass spectrum of a saturated hydrocarbon (containing only carbon and hydrogen with only single bonds between carbons, not double bonds).

1. Draw five different structures that would have the molecular weight of this compound.
2. Choose three smaller m/z values from the spectrum and draw one structure for each of them. Note that these fragments will not have complete Lewis structures.



3/ 5-Chloro-2-pentanone has the mass spectrum shown. Which peak represents the M^+ ? Which is the base peak? Why is there a peak at 122? Explain what the fragment for the base peak would be.

