



TIME OF FLIGHT MASS SPECTROMETRY 2

ToF Mass Spectrometry 1

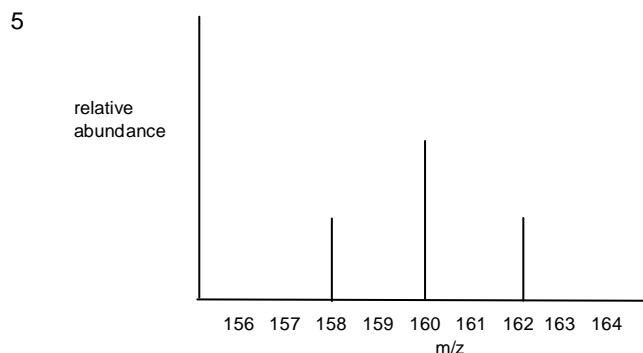
Lithium = 6.93

Gallium = 69.80

Iron = 55.91

ToF Mass Spectrometry 2

- 1 a 207.24
b $^{208}\text{Pb}^+$
c $^{204}\text{Pb}^+$
- 2 a 72
b molecule containing one ^{13}C , or molecule containing one ^2H
c molecules containing more than one ^{13}C or ^2H ; low abundance so very few of these relative to those without
- 3 a $\text{CH}_3^{35}\text{Cl}$ and $\text{CH}_3^{37}\text{Cl}$ in sample
b 3:1
- 4 a 52.06
b $^{52}\text{Cr}^+$
c for each particle: $\frac{1}{2}mv^2 = \frac{1}{2}m'v'^2$ and $v = d/t$; as d is the same for both particles, therefore m/t^2 is equal for both particles
 $50/t^2 = 54/(1.486 \times 10^{-5})^2$
 $t^2 = 2.045 \times 10^{-10}$
 $t = 1.4 \times 10^{-5} \text{ s (2SF)}$



6 83.89

7 87.71