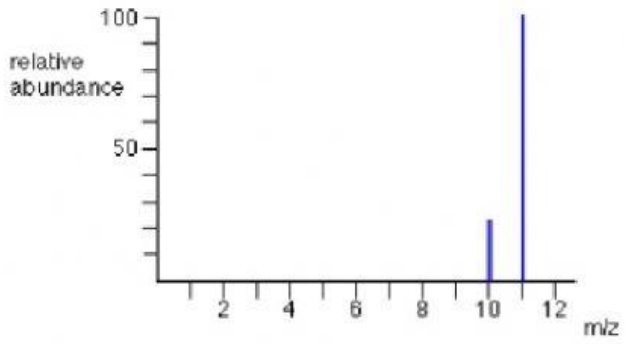
1.4: Atomic and Molecular Mass

1) Calculate the relative atomic mass of the isotopes of Boron below.

The mass spectrum of boron, B is as shown, given the relative abundances:
B-10 : 23
B-11 : 100



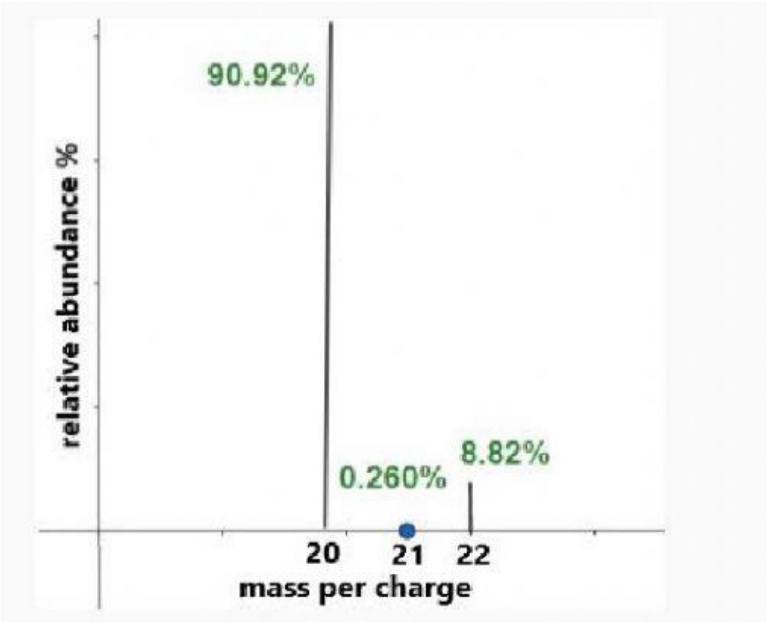
A 54.89

B 10.81

C 10.81 u

D 54.89 u

2) Determine the element from Periodic Table based on the average atomic mass.



A Ne

B Cl

C Ar

D Br

3. The table below gives the relative abundance of each isotopes in a mass spectrum of a sample of germanium, Ge. Use the data to calculate the average atomic mass of the isotopes.

m/z	70	72	74
Relative abundance	24.4	32.4	43.2

A 72.38

B 65.42

C 72.38 amu

D 65.42 amu

4. Based on the mass spectrum below, identify the element. Isotopes and abundance are as listed.

m/z	% abundance
78.92	50.69
80.92	49.31

A Ne

B Cl

C Ar

D Br