K Education Centre

KEC

AS Chemistry

C1: Atomic Structure and Periodic Table
Assignment- 2

Assignment Questions

Atomic Structure and Periodic Table Assignment -2

Q1: What is m/z ratio? Explain the working of mass spectrometer.

Q2: Explain why first ionisation energy of Aluminium is lower than the Magnesium.

Q3: Explain why the first ionisation energy of Sodium is less than Lithium.

Q4: What are the general trends of first ionisation energy within the groups and periods?

Q5: The relative abundances of the isotopes in the sample of iron were found to be as follows.

m/z	54	56	57
Relative abundance (%)	5.8	91.6	2.6

Use the data to calculate the relative atomic mass of iron in this sample.

Q6: A sample of titanium contains four isotopes, ^{46}Ti, ^{47}Ti, ^{48}Ti and ^{49}Ti This sample has a relative atomic mass of 47.8 In this sample the ratio of abundance of isotopes ^{46}Ti, ^{47}Ti and ^{49}Ti is 2:2:1 Calculate the percentage abundance of ^{46}Ti in this sample.