

Key Q's and Vocab – Mass Spectrometry

Vocab:

1. **Relative abundance** – abundance in relation to the most abundant isotope (most abundant isotope will represent 100, then everything else is in relation to it). To convert to percent abundance: part/whole
2. **Percent abundance** – represents the abundance of naturally occurring isotopes in nature and is used to calculate average atomic mass
3. **Average atomic mass** – a weighted average for an element based upon the percent abundance of each isotopes. This is the value you see at the bottom of the elements on the periodic table.
4. **Isotopes** – same elements (same number of protons) but different number of neutrons to mass will be different

Key Questions:

1. Explain how to use a mass spec plot to estimate the average atomic mass of an element.
2. Explain the difference between the average atomic mass and the mass number of an element.
3. Explain which of Dalton's postulates that mass spectrometry proved incorrect and justify the revision to his atomic model.