

8.2 Atom and nucleus

A) Complete the following statement with the suitable words.

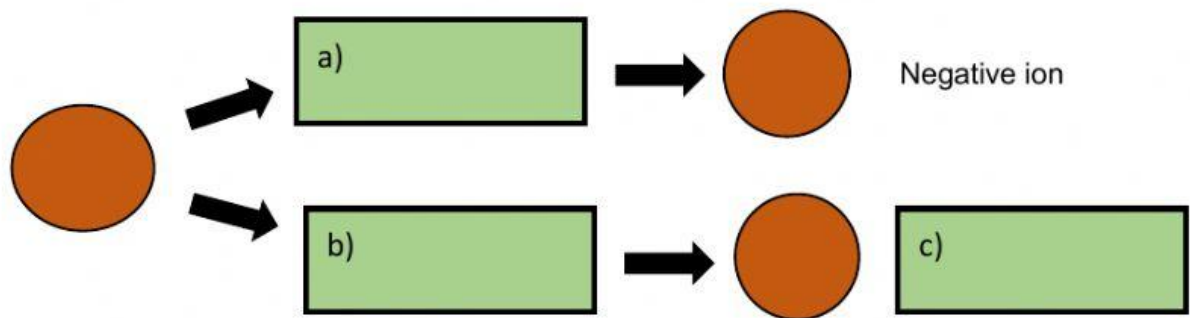
neutral	divided	greater	proton	gain	anion	loss
Dalton's	similar	less	cation	neutron	smallest	electron

1. _____ Atomic theory stated that atom is the _____ particle which cannot be _____ anymore.
2. An atom is _____ when the number of protons is _____ to the number of electrons.
3. Scientific development finds three smaller particles in an atom called subatomic particles.
There are : _____, _____ and _____.
4. A positive ion or _____ is formed by _____ of one or more electrons.
The number of proton is _____ than the number of electrons.
5. A negative ion or _____ is formed by _____ of one or more electrons.
The number of protons is _____ than the number of electrons.

B) Each particle has its own characteristics. State the correct subatomic particles for the following characteristics.

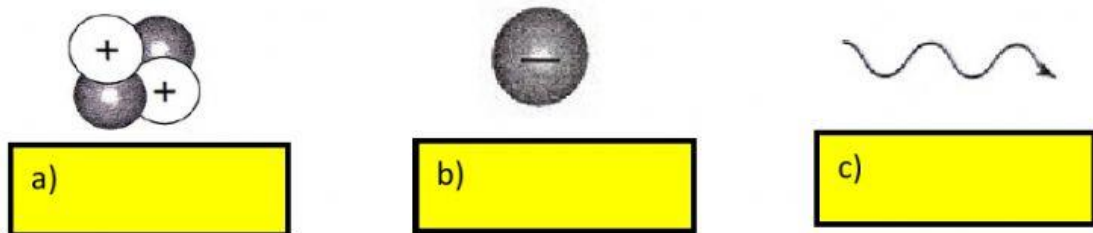
Characteristics	Subatomic particles
i) Do not have charge	
ii) Positively charged	
iii) Negatively charged	
iv) Located inside the nucleus	

c) Fill in the blanks with the correct answer regarding the formation of positive and negative ions.



d) Diagram below shows an illustration represents the radioactive radiation.

i) Name these radiation:



ii) These radiations are emitted during

e) An atom of oxygen, $^{16}_8\text{O}$ is ionised by removing two electrons.

State the number of protons, neutrons and electrons in the ion formed.

Proton :

Neutron:

Electron :