

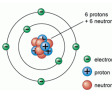
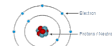
Enriched Atomic Model Notes

Chadwick: 1932

- Agreed with Rutherford-Bohr model, but believed something was still missing in the nucleus.

- What is missing from model and why are they necessary?

Neutrons are missing. They are necessary because they prevent the p+ from repelling off each other and causing the nucleus to explode.

How to calculate neutron number?

Carbon

6	→ Atomic # (# p ⁺ / # e ⁻)
C	
12.011	→ Atomic mass: nucleus: # of p ⁺ + n ⁰
	mass # = atomic mass rounded off

Simplified atomic model

H: 1p⁺, 0n⁰, 1e⁻ (Atomic # = 1, Atomic mass 1)

C: 6p⁺, 6n⁰, 6e⁻


Al: 13p⁺, 14n⁰, 13e⁻ (mass 27)


K: 19p⁺, 20n⁰, 19e⁻ (mass 39)


Be: 4p⁺, 5n⁰, 4e⁻


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1. Which of the following diagrams correctly represents the simplified atomic model of the beryllium (Be) atom?

A) 

C) 

B) 

D) 

1. Which of the following characteristics describe an atom in terms of the simplified model?

- 1- The number of electrons is equal to the number of protons.
- 2- The number of protons is equal to the number of neutrons.
- 3- The nucleus is made up of neutrons, protons and electrons.
- 4- The nucleus is made up of neutrons and electrons.
- 5- The nucleus is made up of protons and neutrons.
- 6- Protons revolve around the nucleus.
- 7- Electrons revolve around the nucleus.

A) 1, 2 and 3
 B) 1, 4 and 6
 C) 1, 5 and 7
 D) 2, 5 and 7

Aug 23-10:08 PM