

Atoms

- ◆ Objective: To understand the structure of the atom.

Research

- ◆ Atom: the smallest particle of an element.
- ◆ nucleus: dense center -mass of atom.

Research

atomic particle	charge	where found
neutrons	none	nucleus
protons	positive (+)	nucleus
electrons	negative(-)	energy levels

- ◆ Atomic Number: # of protons; also # of electrons.
- ◆ Atomic Mass: = # of protons plus # of neutrons.
- ◆ Number of Neutrons: Atomic Mass - Atomic Number

Electron Energy Levels

- ◆ Surround the nucleus. Only 2 e⁻ in the first level, there can be up to 8 e⁻ in each level after that.

Copper Cu

Atomic # = 29

Atomic Mass = 64

How many protons in the nucleus?

How many neutrons in the nucleus?

How many total electrons? How many total energy levels and how many electrons does each level contain?

Copper Cu

Number of protons: 29

Number of neutrons: 35

Total number of electrons: 29

Number of energy levels: 5

2 in the first level

8 in the 2nd, 3rd, and 4th level

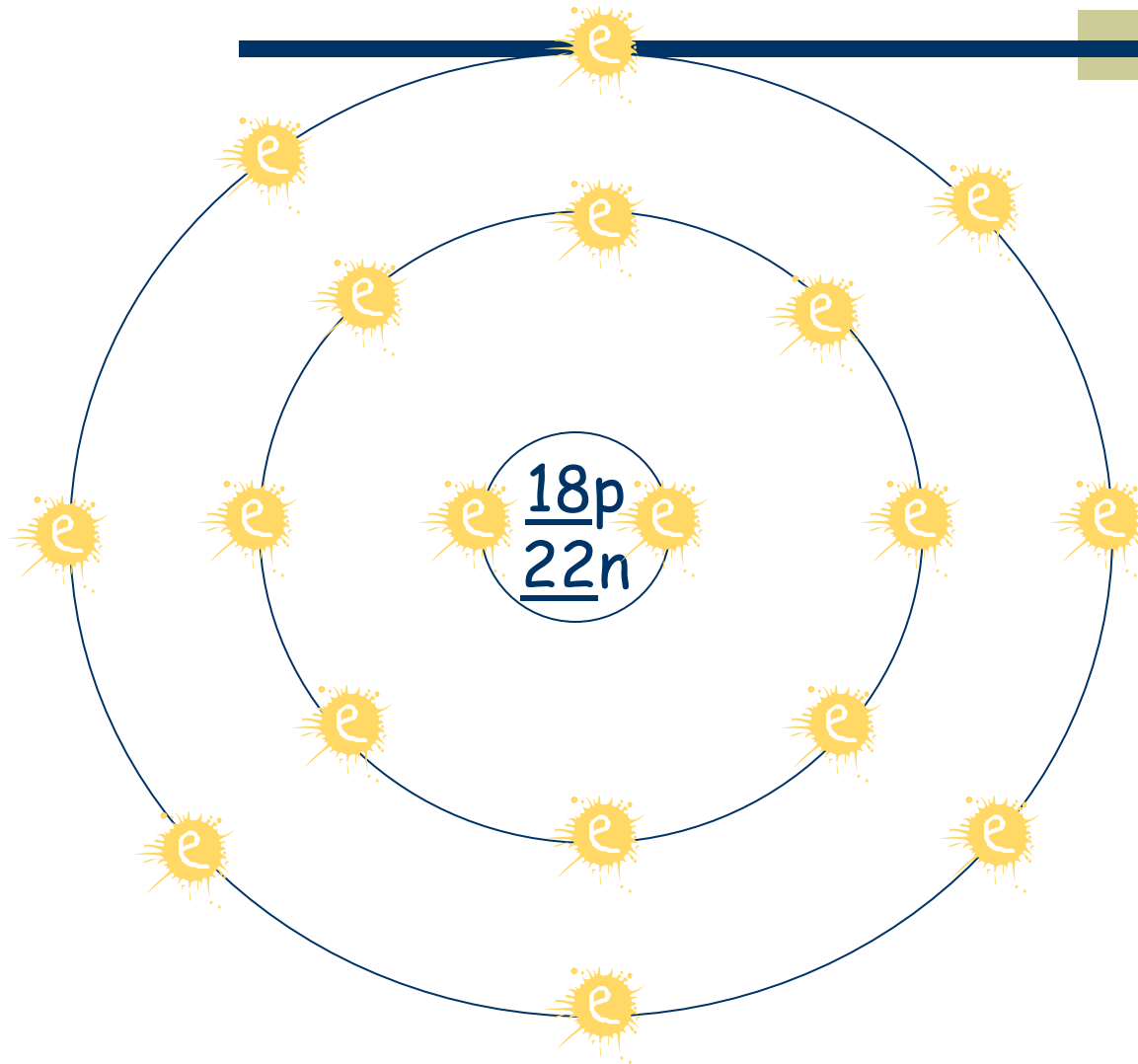
3 in the 5th (outermost) level

What is the atomic structure of Argon?

Atomic # = 18

Atomic Mass = 40

Argon



Atomic Number & Atomic Mass

<u>ELEMENT</u>	<u>ATOMIC #</u>	<u>ATOMIC MASS</u>
Carbon	6	12
Oxygen	8	16
Neon	10	20
Sodium	11	23

