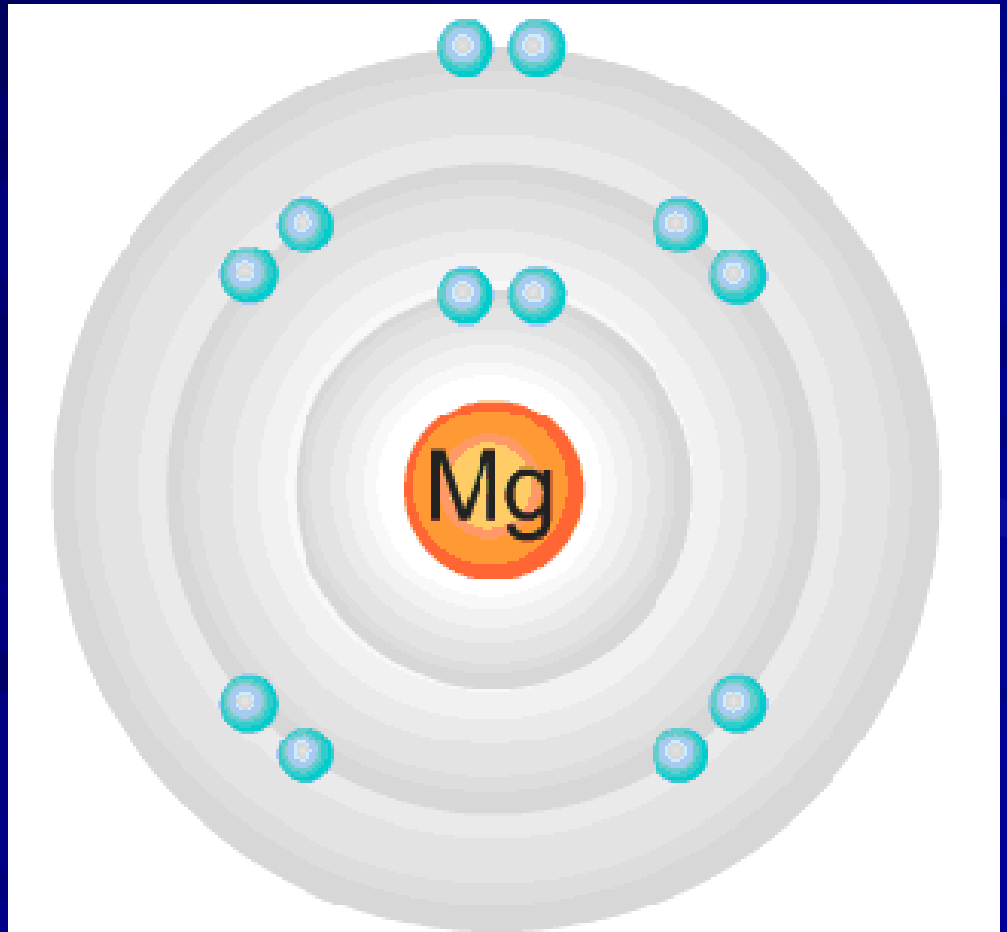
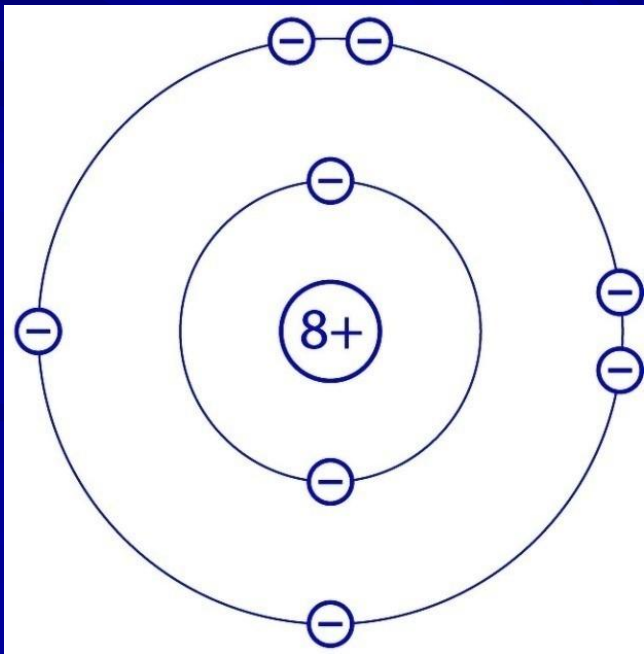
THE RUTHERFORD-BOHR ATOMIC MODEL



- The Rutherford-Bohr atomic model is a representation of the atom as a very small nucleus made up of positively charged protons, surrounded by negatively charged electrons moving in ***defined orbits*** (also called energy levels or simply shells).

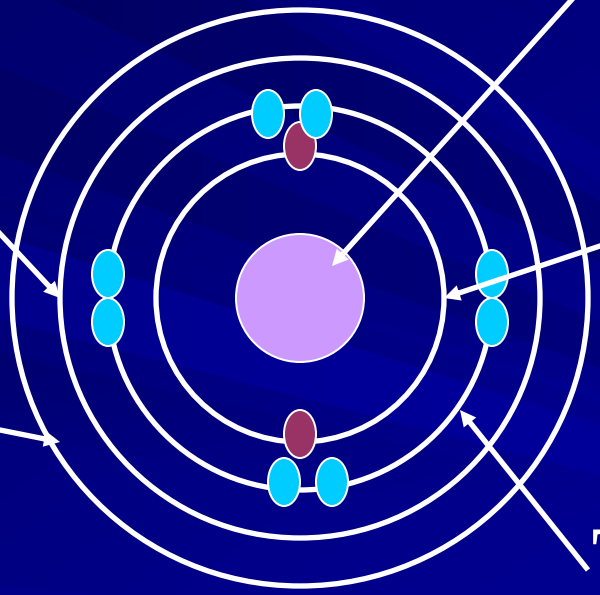


ELECTRON CONFIGURATION

Nucleus containing all protons

The 3rd orbit can hold up to 8 e-

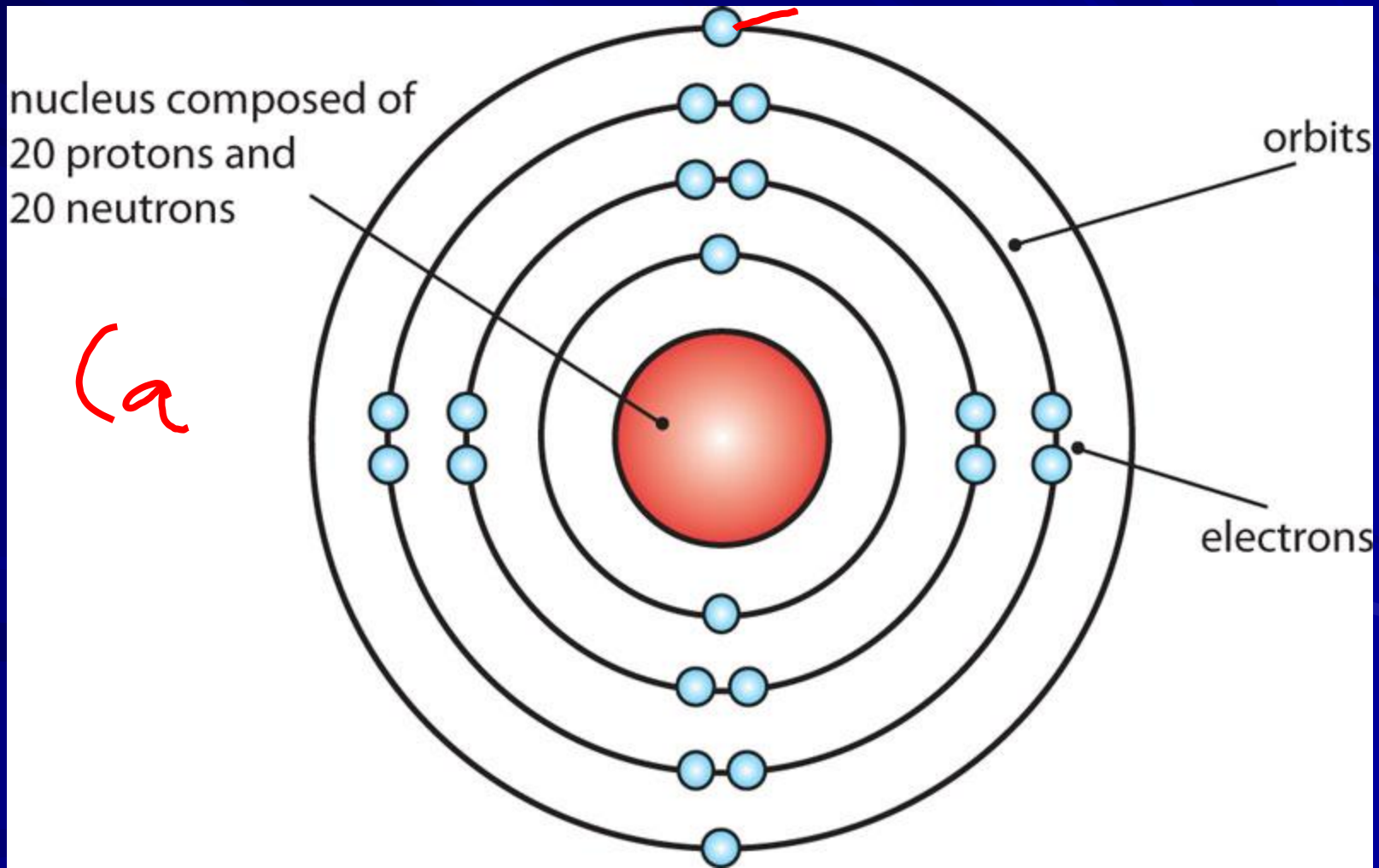
The 1st orbit can hold up to 2 e-



The 4th orbit can hold up to 18e-

The 2nd orbit can hold up to 8 e-

- Capacity of the energy levels for the first 20 elements : 2-8-8-2



- Ex: Neon

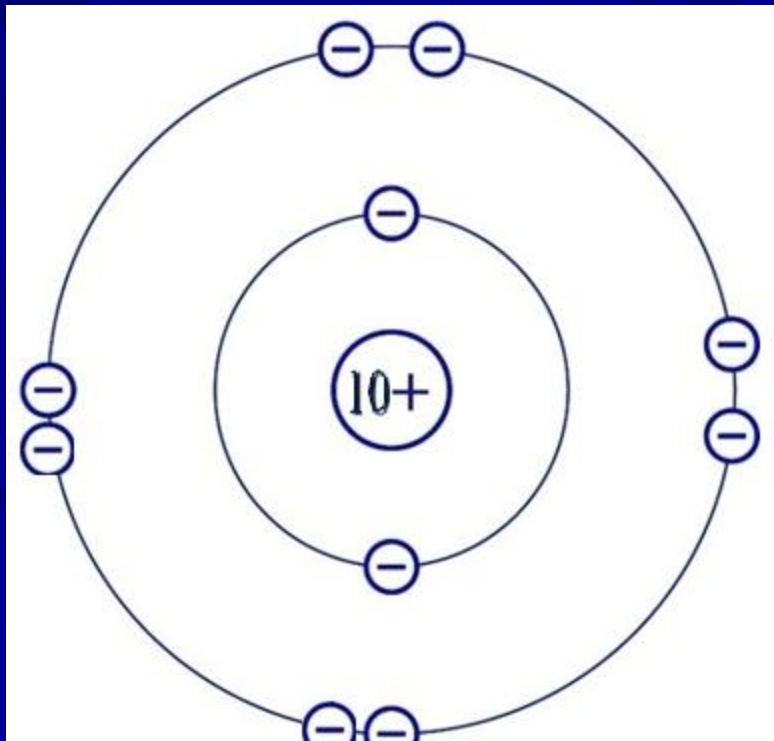
Atomic # 10

Atomic mass # 20

10 electrons distributed like this:

- 2 on the first level
- 8 on the second level

RUTHERFORD- BOHR DIAGRAM



VALENCE ELECTRONS

- The electrons situated on the last shell are called VALENCE ELECTRONS.
- They take part in chemical reactions