

Bohr Diagrams

Niels Bohr developed the Bohr model of the atom with the atomic nucleus at the center and electrons in orbit around it, which he compared to the _____

_____.



Bohr Diagrams

- 1) Find your element on the periodic table.
- 2) Determine the number of electrons – it is the same as the atomic number.
- 3) This is how many electrons you will draw.

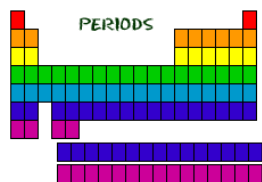
C

Carbon

Atomic Number: _____

Atomic Mass: _____

Bohr Diagrams



- Find out which period (row) your element is in.
- Elements in the **1st period** have _____ energy level.
- Elements in the **2nd period** have _____ energy levels, and so on.

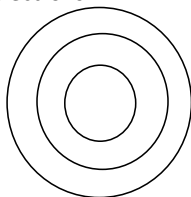
How to Draw Bohr Diagrams

- 1) Draw a small circle to represent the nucleus.
 - a) Fill in protons .
 - b) Fill in neutrons.
- 2) Carbon is in the 2nd period, so it has two energy levels.
- 3) Draw the shells around the nucleus.
- 4) Add the electrons.
- 5) Carbon has 6 electrons.

- 5) The first shell can only hold 2 electrons.
Check your work.
- 6) You should have 6 total electrons for Carbon.
- 7) Only two electrons can fit in the 1st shell.

5) The 2nd shell can hold up to 8 electrons

- 6) The 3rd shell can hold 18, but the elements in the first few periods only use 8 electrons.



Check your understanding

Draw the Bohr diagram for:

Al

Aluminum

Atomic Number: _____

Atomic Mass: _____