Chemistry CP

Name:

Homework: Modern Model of the Atom

Section:

Assignment	Due Date
1. Finish Calculations with a Chemical Reaction lab handout	Tuesday, 3/7
2. Complete p. 418 # 1-8	Wednesday, 3/8
3. Complete p. 418 # 11, 12, 14, 16, 17, 19	Thursday, 3/9
4. Google classroom assignment	Friday, 3/10
5. Finish lab handout for flame test lab	Tuesday, 3/1
6. Handout—electron configurations	Wednesday, 3/15
7. Problem set	Thursday, 3/16
8. Study for quiz on modern model of the atom & electron configurations	Friday, 3/17

Dates to Remember:

Quiz on Modern Model & Electron Configurations Friday, 3/17

After studying chapters 11.1-11.4A, you should be able to:

- Discuss the dual wave-particle nature of light.
- Explain the relationship between frequency, wavelength, and energy of light.
- Compare and contrast the Bohr model and the quantum model of the atom.
- Explain the origin of the atomic emission spectrum of an element.
- Relate the number of sublevels corresponding to each of an atom's main energy levels, the number of orbitals per sublevel, and the number of orbitals per main energy level.
- Apply the Aufbau principle, the Pauli Exclusion Principle, and Hund's rule to write the electron configurations of the elements.

Some Useful Websites

- http://www.avogadro.co.uk/light/bohr/spectra.htm Explanation of atomic spectra
- http://www.wwnorton.com/college/chemistry/chemistry3/ch/07/chemtours.aspx Super tutorials !
  - Check out Electromagnetic radiation, Light emission & absorption, Bohr model & Electron configurations
- http://www.chemguide.co.uk/atoms/properties/atomorbs.html visualizing atomic orbitals
- http://www.winter.group.shef.ac.uk/orbitron/ pictures of atomic orbitals
- http://preparatorychemistry.com/Bishop_complete_electron_configurations_frames.htm electron configurations
- http://www.meta-synthesis.com/webbook/34_qn/qn_to_pt.html very detailed!
- http://www.files.chem.vt.edu/RVGS/ACT/notes/notes-electronic_structure.htmlhttp://chemwiki.ucdavis.edu/Inorganic_Chemistry/Electronic_Structure_of_Atoms_and_Molecules/Electronic_Configurations/Basic_Electronic_Structure_of_Atoms Electronic structure of atoms
- http://www.nyu.edu/pages/mathmol/textbook/atoms.html
- Practice problems at sciencegeek: http://www.sciencegeek.net/Chemistry/taters/Unit2ElectronNotations.htm