

Atoms, Ions and Nomenclature Cramsheet

1. Fill out the following table:

Particle	Location	Symbol	Relative Charge	Relative Mass (3 s.f.)	Actual Mass
Proton					
Neutron					
Electron					

2. Who discovered the electron and how was it discovered?

3. Who discovered the nucleus and how was it discovered?

4. The electron has a mass that is roughly _____ than that of a proton.

5. What are the three main foundations of Dalton's atomic theory?

6. Look up Millikan's oil-drop experiment. What was discovered?

7. What is the actual charge of an electron. Using dimensional analysis, what is the charge of one mole of electrons?

8. Define isotope. How can you predict which ones will be stable? What happens to unstable isotopes?

9. Know how to calculate the the # of p, n, and e using the atomic # and mass # (a.k.a. atomic mass) of an isotope.

10. What is a period and what is a group? Where are the metals located on the periodic table? Nonmetals? Metalloids?

11. Define molecule and define ion. What is a cation and what is an anion? Why do atoms become ions?

12. Memorize the ions on the ion list.

13. Know how to name ionic and covalent compounds. Binary compound means that two elements make up the ionic compound.

14. Remember how to name acids, compounds with polyatomic ions.

15. In class stuff:

- Review naming acids and hydrates.
- Definitions: oxoanions, Hg_2^{2+} , memorization helps.

16. Complete the following problems on a separate sheet of paper:

p. 47 #7, 8, p. 48 #10, 16, 17, 19ab, 20ab, 21ab, 22ab, 23-26, 30-31, 33-35, 38-41, 43, 49, 58, 61