

## Chemistry Honors PracTest-Key: Chemical Equations

1. Write the answer in the space at left.

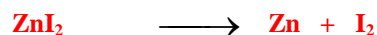
(10 pts.)

- a. 24.3 g 40.0. g of NaCl decomposes into 15.7g of Na and ??g of Cl<sub>2</sub>.
- b. electrolytes Salts that dissociate 100% and conduct an electric current are known as strong \_\_\_\_\_.
- c. Na Which metal **WILL** react with NiF<sub>3</sub> in a single displacement reaction? (Sn or Na)
- d. 2 If a magnesium atom reacts with nitrogen, how many electrons does the magnesium atom lose?
- e. (s) When tin metal is added to a solution of copper nitrate what phase notation should the Sn have?
- f. SO<sub>4</sub><sup>-2</sup> and other Suggest an ion which could be used to precipitate all of the Ba<sup>+2</sup><sub>(aq)</sub> from a solution of Ba(NO<sub>3</sub>)<sub>2</sub>.
- g. Au Which metal would **NOT** react with AgNO<sub>3</sub> in a single displacement reaction? (Au or Mg)
- h. 500 1500 When 500 units of Al(NO<sub>3</sub>)<sub>3</sub> are dissolved in water it will produce    Al<sup>+3</sup> ions and    NO<sub>3</sub><sup>-</sup> ions.
- i. EXO Thermite; Fe<sub>2</sub>O<sub>3</sub> + 2Al → Al<sub>2</sub>O<sub>3</sub> + 2Fe, this reaction is (endo / exo) thermic.
- j. Purple What is the color of the flame when potassium metal is reacting with water?

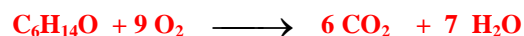
3. Write a balanced chemical equation from the given information. 3 pts. each

(30 pts.)

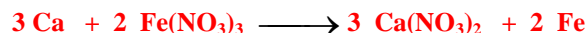
- a.) A solution of zinc iodide is decomposed when the wires from a 9V battery are placed into the liquid .



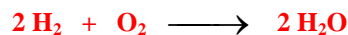
- b.) Liquid hexanol (C<sub>6</sub>H<sub>14</sub>O) is combusted.



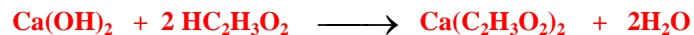
- c.) a piece of calcium ribbon is placed into a solution of iron(III) nitrate.



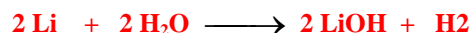
- d.) A lighted wooden splint is placed into a test tube that contains hydrogen gas.



- e.) Lime (calcium hydroxide) is removed from a coffee maker by adding vinegar (diluted acetic acid).



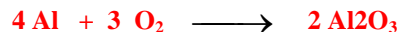
- f.) lithium metal is added to a beaker of water.



- g.) lead carbonate is heated strongly.



- h.) Fine meshed aluminum powder is burned over a Bunsen burner.



- i.) Bromine gas is bubbled through a solution of strontium iodide.



- j.) Write an equation for an acid-base reaction that would produce the salt chromium(III) oxalate.

