Nov. 5, 2018

AP Chem 2-2-1

Objective: Multiple Proportions and Combustion

2009

1. a. A sample of solid iron(III) oxide is reduced completely with solid carbon. What is the oxidation number of carbon before the reaction, and what is the oxidation number of carbon after the reaction is complete?

   b. Equal volumes of equimolar solutions of ammonia and hydrochloric acid are combined. Indicate whether the resulting solution is acidic, basic, or neutral. Explain.

   c. Solid mercury(II) oxide decomposes as it is heated in an open test tube in a fume hood. After the reaction is complete, is the mass of the material in the test tube greater than, less than, or equal to the mass of the original sample? Explain.

2. Given a reaction between 14.56g of sulfuric acid and 28.95g of aluminum.

   a. What mass of aluminum sulfate will be produced?

   b. Which compound is the limiting reagent and what mass of the excess will remain?

   c. If a student found he produced 180.44g of aluminum sulfate, what is the percent error in the experiment? What could have caused this error?

A solution of sodium acetate is added to a solution of nitric acid.

What acid base theory is used in this reaction? Explain why.

I see you are all working hard and learning so much. We will keep going, review concepts in Ch 13 on solution measurements and then learn new material in Chapter 14 and 15. Next semester we will continue to apply Chapter 15 into acids and bases territory.

Assignment:. Warm up 1-1-4 answers due Monday. Take Home Quiz due Tuesday. Worksheet Practice Stoichiometry due Thursday, 2-1-4. Lab Empirical/Molecular and Hydrate due Nov. 8. Lab Redox on Nov. 7-9, due Nov. 15. Lab Hard Water Nov. 14-16, due Nov. 20. Study Session Mondays, 7:30.