
Prelab Assignment: Single and Double Displacement Reactions

1. In this lab you will perform a variety of single and double displacement reactions. What are three observable signs that a chemical reaction has occurred?
2. What is the general equation of a single displacement reaction?
3. For each of the following sets of reactants, write the balanced equation for the single displacement reaction that occurs. If you determine that a reaction will not occur, write "NR", and provide a brief explanation.
 - a. Aluminum metal + aqueous nickel(II) nitrate

 - b. Gold metal + hydrobromic acid

4. What is the general equation of a double displacement reaction?
5. For each of the following sets of reactants, write the balanced equation for the double displacement reaction that occurs. If you determine that a reaction will not occur, write "NR", and provide a brief explanation.
 - a. Aqueous zinc chloride + aqueous sodium chromate

 - b. Aqueous lithium hydroxide + phosphoric acid

6. The equipment required for this lab is fairly simple - just 8 small test tubes and 6 large test tubes.
 - a. Using the small test tubes you will mix two aqueous solutions together and observe whether or not a reaction occurs. What quantity of each solution will you use? How will you estimate this quantity?
 - b. What do the reactions studied in the large test tubes all have in common?
 - c. In the reactions involving both a solid and a solution as reactants, which do you place in the test tube first?