

CHEMICAL REACTIONS

Date: _____ Name: _____ Lab Day/Time: _____

Objectives

- to make careful observations of chemical reactions using the senses of sight, touch, and smell,
- to describe the chemical reactions that have taken place in terms of balanced chemical equations. (Find out from your lab instructor whether you should do this second objective.), and
- to identify unknown ions by using precipitation reactions.

Procedure

As in Chem 1094 lab manual, pp. _____ Observations and Chemical Reactions

Part I: Chemical Reactions

PROCEDURE 1

To 5 drops of lead (II) nitrate solution add 5 drops of potassium iodide solution.

Observations

Equation



PROCEDURE 2

To 5 drops of lead (II) nitrate solution add 15 drops of hydrochloric acid solution.

Observations

Equation



PROCEDURE 3

To a 1 cm strip of magnesium metal add 3mL of hydrochloric acid solution

Observations**Equation****PROCEDURE 4**

To 3mL of sodium hydroxide solution add 3 mL of hydrochloric acid solution

Observations**Equation****PROCEDURE 5**

To a piece of zinc metal add 3mL of copper (II) sulphate solution.

Observations**Equation**

PROCEDURE 6

To 10 drops of sodium chloride solution add 5 drops of silver nitrate solution.

Observations**Equation****PROCEDURE 7**

To 5 drops of barium chloride solution add 5 drops of sodium carbonate solution.

Observations**Equation****PROCEDURE 8**

To 5 drops of barium nitrate solution add 5 drops of sodium sulphate solution.

Observations**Equation**

PROCEDURE 9

To 10 drops of sodium carbonate solution add 1 mL of hydrochloric acid solution.

Observations**Equation****PROCEDURE 10**

To 10 drops of sodium carbonate solution add 5 drops of copper (II) sulphate solution.

Observations**Equation**

Part II: Physical Processes

PROCEDURE 11

To 3mL of tap water, add 1 gram of solid ammonium chloride.

Observations

Equation

PROCEDURE 12

To 3mL of tap water, add 1 gram of solid calcium chloride.

Observations

Equation

PROCEDURE 13

To 5 drops of nickel chloride solution add 10 drops of sodium chloride solution.

Observations

Equation

Part III: Precipitation Reactions

	Cl^-	SO_4^{2-}	I^-	CO_3^{2-}	CrO_4^{2-}	Unknown (anion)
Ag^+						
Ni^{2+}						
Pb^{2+}						
Ba^{2+}						
Unknown (cation)						

Questions

Attach any assigned questions.