

EXPERIMENT # 12**DOUBLE REPLACEMENT REACTIONS**
REPORT FORM**Purpose:****Data & Observation:**

For each reaction performed, complete the requested information. Be sure to include all state designations for the Molecular Equation and all appropriate charges for the Complete and Net Ionic Equations.

Part 1:

- a) Lead(II) nitrate and potassium chromate:

Color of ppt: _____

Formula of ppt: _____

Molecular Equation

Complete Ionic Equation

Net Ionic Equation

- b) Sodium chloride and silver nitrate

Color of ppt: _____

Formula of ppt: _____

Molecular Equation

Complete Ionic Equation

Net Ionic Equation

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b) Lead(II) nitrate and potassium iodide:

Color of ppt: _____

Formula of ppt: _____

Molecular Equation
Complete Ionic Equation
Net Ionic Equation

c) Barium chloride and potassium chromate:

Color of ppt: _____

Formula of ppt: _____

Molecular Equation
Complete Ionic Equation
Net Ionic Equation

EXPERIMENT # 12**Part 2:**

a) Sodium sulfate and barium chloride

Color of ppt: _____

Formula of ppt: _____

Molecular Equation
Complete Ionic Equation
Net Ionic Equation

b) Copper(II) sulfate and barium nitrate:

Color of ppt: _____

Formula of ppt: _____

Molecular Equation
Complete Ionic Equation
Net Ionic Equation

c) Aluminum sulfate and barium nitrate:

Color of ppt: _____

Formula of ppt: _____

Molecular Equation
Complete Ionic Equation
Net Ionic Equation

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Part 3:

- a) Sodium hydroxide and hydrochloric acid

Evidence of reaction: _____

Molecular Equation

- b) Ammonium hydroxide and sulfuric acid

Evidence of reaction: _____

Molecular Equation

- c) Sodium hydroxide and nitric acid

Evidence of reaction: _____

Molecular Equation

Part 4:

- a) Sodium carbonate and hydrochloric acid

Evidence of reaction: _____

Molecular Equation

- b) Sodium sulfite and hydrochloric acid

Evidence of reaction: _____

Molecular Equation

EXPERIMENT # 12**Questions:**

1. Precipitates form when compounds produced have _____ solubility.
(high/low)
2. What precipitate do all the reactions in Part 2 produce? Explain why this occurs.
3. Determine whether each compound listed below is soluble or insoluble:
 - a) $\text{Cu}_3(\text{PO}_4)_2$ _____
 - b) CoCO_3 _____
 - c) K_2SO_4 _____
4. Complete the statements below:
 - a) The reactions in parts 1 and 2 can be classified as _____
 - b) The reactions in part 3 can be classified as _____
 - c) Reactions in part 4 can be classified as _____
5. You are doing an experiment in the lab to study the reaction of sodium sulfate and lead (II) nitrate. Neither of these reagents are available for your use. Suggest two other reagents that you can use and would produce the same results. Write equations to support your answer.