

Name: \_\_\_\_\_

Section: \_\_\_\_\_

Data for Experiment 4

Record your observations for each combination below. If a reaction occurs, write balanced MOLECULAR and NET-IONIC equations. If no reaction occurs, write NR. Make sure to include the physical states of all the products.

1. NaCl(aq) and KNO<sub>3</sub>(aq)

Observations:

Molecular:

Net-Ionic:

2. NaCl(aq) and AgNO<sub>3</sub>(aq)

Observations:

Molecular:

Net-Ionic:

3. NaOH(aq) and HCl(aq)

Observations:

Molecular:

Net-Ionic:

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4.  $\text{BaCl}_2(\text{aq})$  and  $\text{H}_2\text{SO}_4(\text{aq})$

Observations:

Molecular:

Net-Ionic:

5.  $\text{NH}_4\text{OH}(\text{aq})$  and  $\text{H}_2\text{SO}_4(\text{aq})$

Observations:

Molecular:

Net-Ionic:

6.  $\text{CuSO}_4(\text{aq})$  and  $\text{Zn}(\text{NO}_3)_2(\text{aq})$

Observations:

Molecular:

Net-Ionic:

7.  $\text{Na}_2\text{CO}_3(\text{aq})$  and  $\text{CaCl}_2(\text{aq})$

Observations:

Molecular:

Net-Ionic:

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8.  $\text{CuSO}_4(\text{aq})$  and  $\text{NH}_4\text{Cl}(\text{aq})$

Observations:

Molecular:

Net-Ionic:

9.  $\text{NaOH}(\text{aq})$  and  $\text{HNO}_3(\text{aq})$

Observations:

Molecular:

Net-Ionic:

### Questions

1. For each of the reactions listed below, write balanced molecular and net-ionic equations. If no reaction occurs, write NR. Assume all reactants are aqueous unless otherwise noted. Include all physical states.

A. Lead(II) nitrate and magnesium sulfate solutions are combined.

Molecular:

Net-Ionic:

B. Zinc chloride solution is poured into a solution of ammonium carbonate.

Molecular:

Net-Ionic:

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C. Magnesium chloride solution is mixed with nickel(II) nitrate solution.

Molecular:

Net-Ionic:

D. Cobalt(II) sulfate and lithium sulfide solutions are combined.

Molecular:

Net-Ionic:

E. Sodium hydroxide solution is poured into a solution of cobalt(II) chloride.

Molecular:

Net-Ionic:

F. Solid zinc bromide is mixed with a solution of potassium phosphate.

Molecular:

Net-Ionic:

G. Solutions of ammonium sulfate and sodium chloride are combined.

Molecular:

Net-Ionic: