

Experiment 5: Observing and Classifying Reactions

Version 2

Name: _____ **Date:** _____

Lab Partner: _____ **Section:** _____

Purpose

Experimental Data and Equations

Reactions and No Reactions

1. Deionized water + of zinc granules.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

Molecular Equation (ME):

Ionic Equation (IE):

Net Ionic Equation (NIE):

Name: _____

2. 6 M hydrochloric acid + zinc granules. Perform splint test.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

Instructor's Signature _____

3. 0.2 M ammonium oxalate (the oxalate ion is $C_2O_4^{2-}$) + 0.1 M calcium chloride.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

Instructor's Signature _____

Name: _____

4. Copper metal + 6 M hydrochloric acid. Observe reaction several times for 10 - 15 minutes.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

Instructor's Signature _____

5. Copper metal + 0.5 M silver nitrate. Observe reaction several times for 10 - 15 minutes.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

Instructor's Signature _____

Name: _____

6. 0.1 M barium chloride + 0.1 M sodium sulfate.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

7. 1.0 M sodium hydroxide + hydrochloric acid. Measure temperature and pH before and after.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

Instructor's Signature _____

Name: _____

8. 0.1 M ammonium chloride + 0.1 M copper (II) nitrate.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

A Sequence of Reactions

9. 6.0 M sodium hydroxide dropwise + 0.1 M copper (II) nitrate.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

Name: _____

10. Centrifuge the product from experiment 9. Decant the liquid. Heat the solid.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE:

11. 6 M hydrochloric acid + solid produced in experiment 10.

Observations	
Reactants before combining	After combining and mixing
Reacted?	Reaction type:

ME:

IE:

NIE: